UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K

☒ Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the fiscal year ended: December 31, 2014

☐ Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
Commission file number: 001-36066

PARATEK PHARMACEUTICALS, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)

33-0960223
(I.R.S. Employer Identification No.)

75 Kneeland Street
Boston, MA 02111
(Address, including zip code, and telephone number, including area code, of registrant’s principal executive office)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class
Common Stock, par value $0.001 per share
Preferred Shares Purchase Rights

Name of exchange on which registered
The NASDAQ Global Market

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.    Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act.    Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.    Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).    Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐ Accelerated filer ☐
Non-accelerated filer ☒ (Do not check if a smaller reporting company) Smaller reporting company ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).    Yes ☐ No ☒

The aggregate market value of the common stock of the registrant held by non-affiliates of the registrant on June 30, 2014, the last business day of the registrant’s second fiscal quarter was: $32,400,671.

As of February 28, 2015 there were 14,417,936 shares of the registrant’s common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

 Portions of the registrant’s definitive proxy statement for the registrant’s 2015 Annual Meeting of Stockholders to be filed pursuant to Regulation 14A within 120 days of the registrant’s year ended December 31, 2014 are incorporated herein by reference into Part III of this Annual Report on Form 10-K.
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Special Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements that are based upon current expectations within the meaning of the Private Securities Litigation Reform Act of 1995. Paratek Pharmaceuticals, Inc. intends that such statements be protected by the safe harbor created thereby. Forward-looking statements involve risks and uncertainties and actual results and the timing of events may differ significantly from those results discussed in the forward-looking statements. Examples of such forward-looking statements include, but are not limited to, statements about or relating to:

- the plans, strategies and objectives of management for future operations, including the execution of integration and restructuring plans;
- proposed new products, services or developments;
- future economic conditions or performance;
- the therapeutic and commercial potential of our product candidates;
- the timing of regulatory discussions and submissions, and the anticipated timing, scope and outcome of related regulatory actions or guidance;
- our ability to establish and maintain potential new collaborative, partnering or other strategic arrangements for the development and commercialization of our product candidates;
- the anticipated progress of our clinical programs, including whether our ongoing clinical trials will achieve clinically relevant results;
- the timing, scope and anticipated initiation, enrollment and completion of our ongoing and planned clinical trials and any other future clinical trials that we may conduct;
- our ability to obtain and maintain regulatory approvals of our product candidates and any related restrictions, limitations and/or warnings in the label of an approved product candidate;
- our ability to market, commercialize and achieve market acceptance for our product candidates;
- our ability to protect our intellectual property and operate our business without infringing upon the intellectual property rights of others;
- our estimates regarding the sufficiency of our cash resources, expenses, capital requirements and needs for additional financing, and our ability to obtain additional financing; and
- our projected financial performance.

In some cases, you can identify forward-looking statements by terms such as “anticipate,” “believe,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “will,” “would” and similar expressions intended to identify forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance, time frames or achievements to be materially different from the information expressed or implied by these forward-looking statements. While we believe that we have a reasonable basis for each forward-looking statement, we caution you that these statements are based on a combination of facts and factors currently known by us and our projections of the future, about which we cannot be certain. We discuss many of these risks in the “Risk Factors” section and elsewhere in this Annual Report on Form 10-K. Given these risks, uncertainties and other factors, you should not place undue reliance on these forward-looking statements. We can give no assurances that any of the events anticipated by the forward-looking statements will occur or, if any of them do, what impact they will have on our business, results of operations and financial condition. We hereby qualify all of our forward-looking statements by these cautionary statements.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.
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Paratek Pharmaceuticals, Inc. is our registered and unregistered trademark in the United States and other jurisdictions. Intermezzo is a registered and unregistered trademark of Purdue Pharmaceutical Products L.P. and associated companies in the United States and other jurisdictions and is a registered and unregistered trademark of ours in certain other jurisdictions. Other trademarks and trade names referred to in this Annual Report on Form 10-K are the property of their respective owners.

All references to “Paratek,” “we,” “us,” “our” or the “Company” in this Annual Report on Form 10-K mean Paratek Pharmaceuticals, Inc. and our subsidiaries.
PART I

Item 1. Business

Corporate History

Merger of Novacea, Inc. and Transcept Pharmaceuticals, Inc.

We are a Delaware corporation that was incorporated in February 2001 as D-Novo Therapeutics, Inc., which later changed its corporate name to Novacea, Inc., or Novacea. Novacea previously traded on The NASDAQ Global Market under the ticker symbol “NOVC.” On January 30, 2009, Novacea completed a business combination with privately-held Transcept Pharmaceuticals, Inc., or Old Transcept, pursuant to which Old Transcept became a wholly-owned subsidiary of Novacea, and the corporate name of Novacea was changed to “Transcept Pharmaceuticals, Inc.,” or Transcept. In connection with the closing of such transaction, Transcept common stock began trading on The NASDAQ Global Market under the ticker symbol “TSPT” on February 3, 2009.

Merger of Transcept Pharmaceuticals, Inc. and Paratek Pharmaceuticals, Inc.

On October 30, 2014, Transcept completed a business combination with privately-held Paratek Pharmaceuticals, Inc., or Old Paratek, in accordance with the terms of the Agreement and Plan of Merger and Reorganization, dated as of June 30, 2014, by and among Transcept, Tigris Merger Sub, Inc., or Merger Sub, Tigris Acquisition Sub, LLC, or Merger LLC, and Old Paratek, or the Merger Agreement, pursuant to which Merger Sub merged with and into Old Paratek, with Old Paratek surviving as a wholly-owned subsidiary of Transcept, followed by the Merger of Old Paratek with and into Merger LLC, with Merger LLC surviving as a wholly-owned subsidiary of Transcept (we refer to these mergers together as the Merger). Immediately following the Merger, Transcept changed its name to “Paratek Pharmaceuticals, Inc.”, and Merger LLC changed its name to “Paratek Pharma, LLC.” In connection with the closing of the Merger, our common stock began trading on The NASDAQ Global Market under the ticker symbol “PRTK” on October 31, 2014.

All references to “Paratek,” “we,” “us,” “our” or the “Company” in this Annual Report on Form 10-K mean Paratek Pharmaceuticals, Inc., the combined company.

Overview

We are a pharmaceutical company focused on the development and commercialization of innovative, antibacterial therapeutics based upon tetracycline chemistry. We have used our expertise in microbial biology and tetracycline chemistry to create chemically diverse and biologically distinct small molecules derived from the tetracycline class of molecules. Our two lead antibacterial product candidates are omadacycline and sarecycline. Omadacycline is ready to advance into Phase 3, the final stage of clinical development. Sarecycline entered Phase 3 clinical development in December 2014.

Omadacycline

Our first late-stage, lead antibacterial product candidate, omadacycline, is a novel, broad-spectrum antibiotic being developed for potential use as an empiric monotherapy for serious, community-acquired bacterial infections where antibiotic resistance is of concern for treating physicians. Empiric monotherapy refers to the use of a single, antibacterial agent to begin treatment of an infection before the specific pathogen causing the infection has been identified. We believe omadacycline has the potential to be used in the emergency room, hospital and community settings. We have designed omadacycline to provide potential advantages over existing antibiotics, including activity against antibiotic-resistant bacteria, broad spectrum of coverage, intravenous and oral formulations with once-daily dosing and a favorable safety and tolerability profile. We believe that omadacycline has the potential to become the primary antibiotic choice of physicians for use as an empiric monotherapy for acute bacterial skin and skin structure infections, or ABSSSI, community-acquired bacterial pneumonia, or CABP, urinary tract infections, or UTI, and other serious, community-acquired bacterial infections.
We have successfully completed clinical studies necessary to advance omadacycline into Phase 3 clinical development. We have reached agreement with the U.S. Food and Drug Administration, or the FDA, for two separate Special Protocol Assessment, or SPA, agreements (updated in November 2013) with regard to Phase 3 registration trial designs for omadacycline in both ABSSSI and CABP. An SPA agreement documents the FDA’s agreement that the design and planned analysis of the Phase 3 clinical trial reviewed under the SPA process, if the trial is successfully completed, will support a new drug application, or an NDA, submission. An SPA agreement is intended to provide greater assurance that if the agreed upon clinical trial protocols are followed, the clinical trial endpoints are achieved, and there is a favorable risk-benefit profile, the data may serve as the primary basis for an efficacy claim in support of NDA approval. An SPA may only be changed through a written agreement between the sponsor and the FDA or if the FDA becomes aware of new public health concerns. SPA agreements are not a guarantee of an approval of a product candidate or any permissible claims about the product candidate, and final determinations of approvability will not be made until the FDA completes its review of the entire NDA.

Under our SPA agreements, we plan to commence a pivotal registration program that includes two Phase 3 trials of omadacycline, one each for the treatment of CABP and ABSSSI in 2015. Our two prior randomized clinical trials of omadacycline compared omadacycline to linezolid, marketed under the name Zyvox by Pfizer Inc. in the United States, a leading synthetic antibiotic used for the treatment of serious bacterial skin infections. These clinical trials evaluated both IV and oral forms of omadacycline compared to IV and oral forms of linezolid in 359 patients. Based on these studies, a Phase 2 trial and a prior Phase 3 trial, we believe that omadacycline’s clinical response rates and adverse event rates appear to be comparable to linezolid in serious bacterial skin infections.

Sarecycline

Our second late-stage, lead antibacterial product candidate, sarecycline, previously known as WC3035, is a novel, once-daily, tetracycline-derived compound designed for use in the treatment of acne and rosacea. We believe that, based upon the data generated to-date, sarecycline possesses favorable anti-inflammatory activity, plus narrow-spectrum antibacterial activity relative to other tetracycline-derived molecules. Additionally, we believe its oral bioavailability, lack of crossing the blood-brain barrier, and favorable pharmacokinetic, or PK, properties make it particularly well-suited for the treatment of inflammatory acne in the community setting. We have exclusively licensed rights to sarecycline for the treatment of acne in the United States to Warner Chilcott, now Actavis plc, or Actavis, while retaining rights in the rest of the world. Actavis has informed us that sarecycline entered Phase 3 clinical trials in December 2014 for acne. In addition, we have granted Actavis an exclusive license to develop and commercialize sarecycline for the treatment of rosacea in the United States, which converted to a non-exclusive license in December 2014 after Actavis did not exercise its development option with respect to rosacea. There are currently no clinical trials in rosacea underway. Actavis has announced that upon the closing their merger with Allergan Inc. and, subject to board approval and ratification, the new combined company will be called Allergan. We do not plan to develop or commercialize sarecycline ourselves, but intend to out-license rest of world rights.

The following table summarizes the primary therapeutic applications for our two Phase 3 ready product candidates:
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(1) Updated SPA agreements were received from the FDA for ABSSSI and CABP in November 2013. QIDP status for IV and oral formulations has been received in all three indications.

(2) UTI program being developed. QIDP status has been received in cUTI.

(3) We retain rights to sarecycline outside of the United States. Up to $17 million in regulatory milestones and mid-single digits to the low double digits royalties may be earned by us from Actavis on U.S. net sales.

The Antibiotics Market and Limitations of Current Therapies

Physicians commonly prescribe antibiotics to treat patients with acute and chronic infectious diseases that are either known, or presumed, to be caused by bacteria. The World Health Organization has identified the development of worldwide resistance to currently available antibacterial agents as being one of the three greatest threats to human health in this decade. In a press release announcing the release of a study titled “Hospital and Societal Costs of Antimicrobial Resistant Infections in a Chicago Teaching Hospital: Implications for Antibiotic Stewardship,” it was estimated that antibiotic-resistant infections cost the U.S. healthcare system in excess of $20.0 billion annually. In addition, these avoidable infections result in more than $35.0 billion in societal costs and more than 8 million additional days spent in the hospital. Historically, the majority of life-threatening infections resulting from antibiotic-resistant bacteria were acquired in the hospital setting. According to two recent reports issued by Decision Resources Group, “Hospital-Treated Infections” published in 2014 and “Community Acquired Bacterial Pneumonia” published in 2012, approximately seven million antibiotic treated events occur annually in the three combined indications of ABSSSI, UTI, and CABP in U.S. hospitals. The evolving emergence of multi-drug resistant pathogens in the community setting further emphasizes the need for novel agents capable of overcoming antibiotic resistance. IMS data issued in 2014 reported that approximately 75 million retail prescriptions for the top five generic broad spectrum oral antibiotics, levofloxacin, co-amoxiclav, azithromycin, ciprofloxacin, and clarithromycin were written in the United States alone.

Bacteria are often broadly classified as gram-positive bacteria, including antibiotic-resistant bacteria such as MRSA and MDR-SP; gram-negative bacteria, including antibiotic-resistant bacteria such as ESBL-producing Enterobacteriaceae; atypical bacteria, including Chlamydia pneumoniae and Legionella pneumophila; and anaerobic bacteria, including Bacteroides and Clostridia. Antibiotics that are active against both gram-positive and gram-negative bacteria are referred to as “broad spectrum,” while antibiotics that are active only against a select subset of gram-positive or gram-negative bacteria are referred to as “narrow spectrum.” Today, because many of the currently prescribed antibiotics that have activity against resistant organisms typically are “narrow spectrum,” they cannot be used as an empiric monotherapy treatment of serious infections where gram-negative, atypical or anaerobic bacteria may also be involved. Based on published studies, rates of infections involving organisms other than gram-positive bacteria have been found to be as much as 15% in ABSSSI, up to 40% in CABP and 70% to 90% in urinary tract infections.

When a patient comes to the emergency room or hospital for treatment of a serious infection, the physician’s selection of which IV antibiotic to use is often based on the severity of infection, the pathogen(s) believed most likely to be involved and the probability of a resistant pathogen(s) being present. After initial IV therapy and once the infection begins to respond to treatment, hospitals and physicians face strong pressures to discharge patients from the hospital in order to reduce costs, reduce hospital-acquired infections and improve the patient’s quality of life. In order to transition patients out of the hospital and back home to complete the course of therapy, physicians typically prefer to have the option to prescribe a bioequivalent oral formulation of the same antibiotic.

Antibiotics used to treat ABSSSI, CABP, UTI and other serious, community-acquired bacterial infections must satisfy a wide range of criteria on a cost-effective basis. For example, we believe that existing treatment options for ABSSSI, including vancomycin, linezolid, daptomycin and tigecycline; for CABP, including levofloxacin, moxifloxacin, azithromycin, ceftriaxone, ceftaroline and tigecycline; and for UTI, including levofloxacin, ciprofloxacin, ceftriaxone and trimethoprim/sulfamethoxazole, have one or more of the following significant limitations:
Limited spectrum of antibacterial activity. Since it may take as long as 48 to 72 hours to identify the pathogen(s) causing an infection and most of the currently available options that cover resistant pathogens are only narrow-spectrum treatments, physicians are frequently forced to initially prescribe two or more antibiotics to treat a broad spectrum of potential pathogens. For example, vancomycin, linezolid and daptomycin, the most frequently prescribed treatments for certain serious bacterial skin infections, are narrow-spectrum treatments active only against gram-positive bacteria. The currently available treatment with a more appropriate spectrum for use as a monotherapy against serious and antibiotic-resistant bacterial infections is tigecycline, but it has other significant limitations, including twice-daily IV-only dosing and tolerability concerns, including nausea and vomiting.

Lack of both IV and oral formulations. Of the most common treatments for serious bacterial infections, vancomycin, daptomycin, ceftriaxone and tigecycline are only available as injectable or IV formulations. The lack of an effective bioequivalent oral formulation of these and many other commonly prescribed antibiotics requires continued IV therapy, which is inconvenient for the patient and may result in longer hospital stays and greater cost. Alternatively, because of the absence of the same antibiotic in an oral, well-tolerated formulation, physicians may switch the patient to a different orally available antibiotic at the time of hospital discharge. This carries the risk of new side effects and possible treatment failure if the oral antibiotic does not cover the same bacteria that was being effectively treated by the IV antibiotic therapy. While linezolid is a twice-daily IV and oral therapy, it is a narrow-spectrum treatment that is associated with increasing bacterial resistance, side effects from interactions with other therapies and other serious safety concerns.

Safety/tolerability concerns and side effects. Concerns about antibiotic safety and tolerability are among the leading reasons why patients stop treatment and fail therapy. The most commonly used antibiotics, such as vancomycin, linezolid, daptomycin, levofloxacin, moxifloxacin, azithromycin and tigecycline, are associated with safety and tolerability concerns. For example, vancomycin, which requires frequent therapeutic monitoring of blood levels and corresponding dose adjustments, is associated with allergic reactions and can cause kidney damage, loss of balance, loss of hearing, vomiting and nausea in certain patients. Linezolid is associated with bone marrow suppression and loss of vision and should not be taken by patients who are also on many commonly prescribed anti-depressants, such as monoamine oxidase inhibitors and serotonin reuptake inhibitors. Daptomycin has been associated with a reduction of efficacy in patients with moderate renal insufficiency and has a side effect profile that includes muscle damage. Tigecycline is associated with tolerability concerns because of vomiting and nausea. Levofloxacin and moxifloxacin are associated with tendon rupture and peripheral neuropathy. Additionally, a May 2012 article in the New England Journal of Medicine indicated that a small number of patients treated with azithromycin and quinolones, such as levofloxacin or moxifloxacin, may experience sudden death due to cardiac arrhythmia, which is often predicted by a prolongation of the corrected QT interval, or QTc. The FDA issued a Drug Safety Communication on March 12, 2013 titled “Azithromycin (Zithromax or Zmax) and the risk of potentially fatal heart rhythms,” and the azithromycin drug label warnings were strengthened to address this concern.

Increasing bacterial resistance. Bacterial resistance to the most frequently prescribed antibiotics (branded or generic) has limited their potential to treat infections, which prevents their use as an empiric monotherapy. We believe that MRSA and MDR-SP in the community have posed treatment challenges because of resistance to penicillins (resistance rate up to 100% for both), cephalosporins (100% and 11%, respectively, for ceftriaxone), macrolides (83% and 86%, respectively, for erythromycin/azithromycin) and quinolones (73% and 2%, respectively, for levofloxacin), particularly in ABSSSI and CABP. There have also been recent reports of resistance developing during treatment with daptomycin and concerns about an increasing frequency of strains of Staphylococcus aureus with reduced susceptibility to vancomycin. Additionally, linezolid use has been associated with drug resistance, including reports of outbreaks of resistance among Staphylococcus aureus and Enterococcus strains. The increasing occurrence of multi-drug resistant, ESBL-producing, gram-
negative bacteria in community-acquired UTIs has severely curtailed the oral antibiotic treatment options available to physicians for these UTIs. For example, in a recent survey, 95% and 76% of the ESBL isolates of *Escherichia coli* found in UTIs, respectively, were resistant to ceftriaxone and levofloxacin.

These limitations can ultimately lead to longer hospital stays, greater healthcare costs and increased morbidity and mortality due to lower cure rates and increased side effects. While certain antibiotics address some of these criteria, we do not believe there is one superior treatment option that satisfies all criteria. We believe that it is essential for the treatment of patients with serious, community-acquired bacterial infections that physicians prescribe the right antibiotic the first time, as ineffective antibiotics can quickly lead to progressively more severe and invasive infections or even death.

Our Product Candidates

**Omadacycline**

In order to address some of the limitations of current antibiotics, we have designed omadacycline to be a new broad-spectrum antibiotic for potential use as an empiric monotherapy option for patients suffering from serious, community-acquired bacterial infections, such as ABSSSI, CABP and UTI, where antibiotic resistance is of concern for treating physicians. We believe omadacycline may enable physicians to prescribe an antibiotic that will increase the chance for reliable cure rates, the potential ability to avoid hospitalization and the potential for shorter hospital stays through the completion of therapy with an oral antibiotic at home, all of which may reduce overall healthcare costs. Potential advantages of omadacycline include:

- **Once-daily IV and oral formulations to support “step-down” therapy.** We have studied once-daily IV and oral formulations of omadacycline in approximately 700 subjects to date across multiple Phase 1, Phase 2 and Phase 3 clinical trials, and we plan to use both of these formulations in our Phase 3 registration trials. The bioequivalence of the IV and oral formulations permits step-down therapy, which allows patients to start treatment on the IV formulation then “step down” to the oral formulation of the same antibacterial agent once the infection is responding. We believe that step-down therapy has the potential to avoid the safety and efficacy concerns that can accompany switching from an IV agent to a different class of oral antibiotic and to facilitate the continuance of curative therapy at home. We believe that our SPA agreements with the FDA will permit us to submit for approval of both IV and oral formulations of omadacycline.

- **Broad spectrum of antibacterial activity.** Omadacycline has demonstrated *in vitro* activity against all common pathogens found in ABSSSI, such as *Staphylococcus aureus*, including MRSA; *Streptococci* (including Group A *Streptococci*), anaerobic pathogens and many gram-negative organisms. Omadacycline is also active in *vitro* against the key pathogens found in CABP, such as *Streptococcus pneumoniae*, including MDR-SP; *Staphylococcus aureus*, *Haemophilus influenzae* and atypical bacteria, including *Legionella pneumophila*. On the basis of the in vitro spectrum of activity demonstrated by omadacycline against a range of pathogens in our pre-clinical testing, we believe omadacycline has the in vitro spectrum of coverage needed to potentially become the primary antibiotic choice of physicians and serve as an empiric monotherapy option for ABSSSI, CABP, UTI and other serious, community-acquired bacterial infections where resistance is of concern, if approved by the FDA.

- **Favorable safety and tolerability profile.** To date, we have observed omadacycline to be generally well tolerated in studies involving approximately 700 subjects. We have conducted a thorough QTc study, as defined by FDA guidance to assess prolongation of QTc, an indicator of cardiac arrhythmia. This study suggests no prolongation of QTc by omadacycline at three times the therapeutic dose. Further, in clinical studies, omadacycline does not appear to adversely affect blood cell production, nor does it appear to metabolize in the liver or anywhere else in the body, thus reducing the likelihood of causing drug-to-drug interactions. Additionally, omadacycline has resulted in low rates of diarrhea, and we
have not observed *Clostridium difficile* infection, which can frequently occur from the use of broad-spectrum antibiotics.

- **Designed to overcome bacterial resistance.** We designed omadacycline to overcome the two major mechanisms of tetracycline resistance, known as pump efflux and ribosome protection. This approach was via structure-activity relationship chemistry-based modifications of the seven and nine positions of minocycline. Our attempts to generate resistance to omadacycline in the laboratory suggest a low potential for developing resistance. In addition, our testing of thousands of bacterial samples in the laboratory suggests that omadacycline has not been affected to date by clinically relevant mechanisms of resistance to tetracyclines or to any other class of antibiotics.

We have built a highly productive discovery and pre-clinical development platform that has generated innovative small molecule therapeutic candidates based upon medicinal chemistry-based modifications, according to structure-based activity, of all positions of the core tetracycline molecule. These efforts have yielded molecules with broad-spectrum antibiotic properties and narrow-spectrum antibiotic properties, and molecules with potent anti-inflammatory properties to fit specific therapeutic applications. This proprietary chemistry platform has produced many compounds that have shown interesting characteristics in various *in vitro* and *in vivo* efficacy models. Omadacycline and sarecycline are examples of molecules that were synthesized from this chemistry discovery platform.

In addition to its broad spectrum of antibacterial activity and its availability in once-daily IV and oral formulations, omadacycline appears to penetrate tissues broadly, including the lungs, muscle and kidneys, thereby achieving high concentrations at the sites of infection. Since omadacycline is eliminated from the body (as unchanged parent compound) via the kidneys, liver and intestine in a balanced manner, we believe it may potentially be used in patients with diminished kidney and liver function, without dose adjustment.

**Completed Omadacycline Clinical Trials**

*Early Terminated Phase 3 Clinical Trial in cSSSI*

**Design.** We designed our Phase 3 clinical trial pursuant to the then-current 1998 FDA guidance on developing antimicrobial drugs for the treatment of complicated skin and skin structure infections, or cSSSI. The primary objective of the clinical trial was to establish that omadacycline as a monotherapy was not inferior to linezolid, with or without moxifloxacin, as a treatment for patients with serious skin infections. Following randomization, patients initially received either IV therapy with 100 milligrams, or mg, of omadacycline every 24 hours, or 600 mg of linezolid every 12 hours. For patients with infections suspected or documented as involving gram-negative bacteria, the blinded physician had the option of providing patients with additional antibiotic therapy, with patients assigned to the linezolid arm receiving 400 mg of moxifloxacin every 24 hours and patients assigned to omadacycline receiving a placebo, since omadacycline has activity against some of the most common gram-negative bacteria that commonly cause these infections, to match the dosing regimen of linezolid-treated patients.

Patients who were enrolled in this clinical trial had one of three major infection types: wound infection, cellulitis or major abscess. Enrollment of patients with major abscess was limited to 20% of the total enrollment. Patients were initially treated with the applicable study drug intravenously and then, based on the physician’s assessment of the response of the infection to treatment, patients could be switched to oral therapy. For oral step-down therapy, patients randomized to linezolid received one 600 mg tablet of linezolid every 12 hours, and if treatment for suspected gram-negative bacteria was still required, one 400 mg tablet of moxifloxacin every 24 hours. Patients randomized to omadacycline received 300 mg of omadacycline (dosed as two 150 mg tablets) every 24 hours, plus placebo where gram-negative bacteria was suspected. Patients transitioned to oral therapy after receiving an average of 4.8 days of IV therapy. We intended to evaluate the trial’s primary endpoint by analyzing the clinical success rates in the intent-to-treat, or ITT, and the clinically evaluable, or CE, populations. The ITT population in this clinical trial refers to all enrolled subjects who received at least one dose of study.
drug, and the CE population refers to all ITT subjects who had a qualifying infection as defined in the protocol, received the study drug for more than five days, had all protocol-defined clinical evaluations and had not received non-study antibiotics. As a result of the study being terminated ahead of schedule due to FDA changes in regulatory guidance for the primary endpoint, we did not enroll a sufficient number of patients to determine non-inferiority or superiority.

**Patient characteristics.** Of the 140 patients that received at least one dose of study drug, 68 were randomized to omadacycline and 72 were randomized to linezolid. Cellulitis was present in 92 of the 140 patients enrolled. The maximal dimension of the infection at baseline exceeded 10 cm for 125 of the 140 patients, and for these patients the mean maximal lesion dimension exceeded 20 cm.

**Efficacy.** Although we terminated this trial before reaching its enrollment goal, thus precluding any statistical conclusions with regard to non-inferiority, the table below shows the clinical success rates in omadacycline- and linezolid-treated patients in the two primary analysis populations, ITT and CE. The overall clinical success rates in the ITT population were between 85% and 90% in both omadacycline- and linezolid-treated patients. In the CE population, the overall clinical success rates were in the mid-90% range for both omadacycline- and linezolid-treated patients. In the microbiologically evaluable population, which includes patients included in the CE population from whom a bacterial pathogen was isolated at baseline enrollment, the clinical success rates for MRSA and methicillin-susceptible Staphylococcus aureus, or MSSA, infections were greater than 90% in both omadacycline- and linezolid-treated patients. These data remain congruent with the favorable comparative efficacy activity seen in our Phase 2 clinical trial of omadacycline in cSSSI, and we believe the results support proceeding to Phase 3 registration trials.

<table>
<thead>
<tr>
<th></th>
<th>Omadacycline</th>
<th>Linezolid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population</strong></td>
<td>Clinical</td>
<td>Clinical</td>
</tr>
<tr>
<td></td>
<td>Success (N)</td>
<td>Success (%)</td>
</tr>
<tr>
<td>Intent-to-Treat</td>
<td>58</td>
<td>85.3%</td>
</tr>
<tr>
<td>Clinically Evaluable</td>
<td>58</td>
<td>96.7%</td>
</tr>
</tbody>
</table>

**Note:** The table above shows data from our Phase 3 non-registration clinical trial, which did not have a sufficient number of patients enrolled to determine statistical non-inferiority.

We also analyzed subgroups of CE patients defined by the category of complicated skin infection experienced by those patients. The table below shows the clinical success rates at the test-of-cure, or TOC, in CE patients for each of the three major categories of serious skin infections (wound, cellulitis and major abscess). This analysis showed that for each of the categories of serious skin infection, omadacycline treatment resulted in approximately the same cure rate as linezolid treatment, thus suggesting consistent activity across the major ABSSI subtypes that we intend to study in the Phase 3 registration trials.

<table>
<thead>
<tr>
<th></th>
<th>Omadacycline</th>
<th>Linezolid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clinical</td>
<td>Clinical</td>
</tr>
<tr>
<td></td>
<td>Success (N)</td>
<td>Success (%)</td>
</tr>
<tr>
<td>All CE Patients at TOC</td>
<td>58</td>
<td>96.7%</td>
</tr>
<tr>
<td>Wound</td>
<td>13</td>
<td>100%</td>
</tr>
<tr>
<td>Cellulitis</td>
<td>38</td>
<td>97.4%</td>
</tr>
<tr>
<td>Major Abscess</td>
<td>7</td>
<td>87.5%</td>
</tr>
</tbody>
</table>

**Note:** The table above shows data from our Phase 3 non-registration clinical trial, which did not have a sufficient number of patients enrolled to determine statistical non-inferiority.
Safety and tolerability. The overall incidence of adverse events was similar in both treatment groups. There were no significant alterations of cardiovascular, renal or hepatic safety laboratory values. One death occurred in a patient randomized to omadacycline who presented with undiagnosed metastatic lung cancer after being assessed as cured following the TOC visit. Study investigators did not consider any of the serious adverse events reported to be related to either omadacycline or linezolid. The table below shows the adverse events reported by 10% or more of either omadacycline-treated patients or linezolid-treated patients.

<table>
<thead>
<tr>
<th>Adverse Event</th>
<th>Omadacycline (N = 68)</th>
<th>Linezolid (N = 72)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Patients Reporting AE (%)</td>
<td>Patients Reporting AE (%)</td>
</tr>
<tr>
<td>Nausea</td>
<td>18 26.5%</td>
<td>19 26.4%</td>
</tr>
<tr>
<td>Headache</td>
<td>16 23.5%</td>
<td>5  6.9%</td>
</tr>
<tr>
<td>Dizziness</td>
<td>7  10.3%</td>
<td>6  8.3%</td>
</tr>
<tr>
<td>Vomiting</td>
<td>6  8.8%</td>
<td>11 15.3%</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>3  4.4%</td>
<td>13 18.1%</td>
</tr>
</tbody>
</table>

Post-hoc efficacy analysis. In October 2013, the FDA issued the current guidance for ABSSSI removing elimination of fever and defining the early clinical response, or ECR, as a ≥ 20% reduction in lesion size within 48 to 72 hours of initial therapy compared to the baseline measurement in ITT patients as the primary endpoint for efficacy. We conducted a post-hoc retrospective analysis of the Phase 3 cSSSI non-registration trial data to assess the ECR rate in omadacycline- versus linezolid-treated patients. All ITT patients who had a lesion measurement taken within 48 to 72 hours following the initiation of treatment at an end-of-IV visit, or EOIV, were included in this retrospective analysis. As with our Phase 2 clinical trial, the protocol required that lesion size be measured by recording the maximal lesion dimension at baseline. Twenty-one omadacycline-treated patients and 21 linezolid-treated patients were identified that fit the criteria for analysis. The mean percent reduction in lesion size in each of these patient groups at the EOIV and at the end-of-treatment, or EOT, visit is shown in the table below. Of the 21 omadacycline-treated patients analyzed, 100% showed a reduction in lesion size of 20% or more compared to baseline measurements within 48 to 72 hours compared to 95.2% of patients in the linezolid-treatment arm. Both patient treatment arms showed comparable high ECR rates as well as additional lesion size reduction at the EOT visit. Taken together with the post-hoc efficacy analysis we conducted in the Phase 2 clinical trial, we believe that this analysis supports our belief that lesion size will be reduced at a comparable rate to that observed with linezolid and supports our belief that comparable activity to linezolid with the newly required ECR endpoint will be shown in the Phase 3 registration trial.

<table>
<thead>
<tr>
<th></th>
<th>Omadacycline (N = 21)</th>
<th>Linezolid (N = 21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean % change in lesion size at EOIV (48-72 hours after baseline)</td>
<td>-62.3%</td>
<td>-57.4%</td>
</tr>
<tr>
<td>Mean % change in lesion size at EOT</td>
<td>-90.8%</td>
<td>-90.1%</td>
</tr>
<tr>
<td>ECR (&gt;20% reduction in lesion size 48-72 hours after baseline)</td>
<td>100%</td>
<td>95.2%</td>
</tr>
</tbody>
</table>

Pharmacokinetics. PK data from our Phase 3 clinical trial, together with the data collected in our Phase 2 clinical trial, suggest that we achieved comparable drug levels in both healthy Phase 1 healthy volunteer subjects and subjects with serious skin infections at the doses utilized in the trial.

Summary. Although we terminated our Phase 3 clinical trial before we reached its enrollment goal due to the FDA’s decision to change the primary endpoint of skin infection trials to the ECR endpoint, we believe that the results of the Phase 3 clinical trial further support the belief that omadacycline will be well tolerated and effective as a treatment of patients with serious skin infections. Combined with those patients treated in the randomized Phase 2 clinical trial, we have treated a total of 179 patients with skin infections with omadacycline. Further, we believe that data from our post-hoc analyses of the newly required ECR endpoint support our belief that omadacycline will demonstrate comparable activity to linezolid within the ABSSSI study design in our planned Phase 3 ABSSSI SPA agreement with the FDA.
Phase 2 Clinical Trial in cSSSI

We designed and conducted and completed a randomized Phase 2 clinical trial with the primary objective of comparing the safety and tolerability of omadacycline to linezolid in patients with cSSSI. Our key secondary objectives involved comparing the safety of omadacycline to linezolid and assessing the PK properties of omadacycline.

Following randomization, patients initially received IV therapy with 100 mg of omadacycline every 24 hours, or 600 mg of linezolid every 12 hours. For patients with infections suspected or documented as involving gram-negative bacteria, the blinded physician had the option of providing patients with additional IV antibiotic therapy, with patients assigned to the linezolid group also receiving two grams of aztreonam every 12 hours, and patients assigned to the omadacycline group receiving a placebo to match the dosing regimen of linezolid-treated patients. Based on a blinded physician’s assessment of the appropriateness of hospital discharge and continuation of oral therapy, most patients then transitioned to oral therapy. For oral therapy, patients randomized to omadacycline received 200 mg of omadacycline (dosed as two 100 mg capsules) every 24 hours. Patients randomized to linezolid received one 600 mg tablet of linezolid every 12 hours. Patients in both groups received an average of five to six days of oral therapy following an average of 4.3 days of IV therapy.

Patient characteristics. Of the 219 patients that received at least one dose of the study drug in our Phase 2 clinical trial, 111 patients were randomly selected to be treated with omadacycline and 108 were randomly selected to be treated with linezolid. Two-thirds (66.2%, or 145) of the patients suffered from major abscesses. About 17.4%, or 38, of the patients suffered from wound infections, and the majority of these infections (29/38, or 76.3%) were due to traumatic injuries. Another approximately 8.2%, or 18 patients, suffered from cellulitis, and approximately 8.2%, or 18 patients, suffered from lower extremity lesions. Over two-thirds of the patients exhibited moderate to severe reddening of the skin, or erythema; hardness, or induration, of the infected area; and pain at baseline.

Efficacy. We measured clinical responses in two study populations, ITT and CE. The ITT population in this clinical trial refers to all enrolled subjects who received more than one dose of study drug, and the CE population refers to all ITT subjects who had a qualifying infection and were treated and evaluated as defined in the protocol. The table below summarizes the rates of successful clinical response for each of the two study populations and shows that in both populations the successful clinical response rates in omadacycline-treated patients were comparable to those in linezolid-treated patients.

Analyses of clinical responses by category of serious infection also showed that favorable outcomes with omadacycline appeared to be consistent across infection types. For subjects with major abscesses the difference in successful clinical response was 3.6% (95% CI -3.7 to 10.9) favoring omadacycline treatment (98.5% versus 94.8%) in the CE population. For the next most frequent infection type, wound infections associated with trauma, the difference in successful clinical response was 10.0% (95% CI -13.6 to 33.6), favoring omadacycline treatment (100% versus 90%) in the CE population. The leading cause of infection was *Staphylococcus aureus*, the majority of which were MRSA isolates. In the microbiologically evaluable population, the clinical success rates for MRSA and MSSA infections were greater than 90% in both omadacycline- and linezolid-treated patients.
Safety and tolerability. There were three serious adverse events reported in this clinical trial, one in an omadacycline-treated patient and two in linezolid-treated patients. The study investigator considered the event in the omadacycline-treated patient, which involved worsening confusion, to be unrelated to the study therapy. Among the 111 omadacycline-treated patients, 46 (41.4%) experienced one or more treatment-emergent adverse events and 24 (21.6%) experienced one or more adverse events assessed as potentially treatment-related. By comparison, among the 108 linezolid-treated patients, 55 (50.9%) experienced one or more treatment-emergent adverse events and 33 (30.6%) experienced adverse events assessed as potentially treatment-related. In both arms of the clinical trial, the most frequently involved organ system was the gastrointestinal tract, with adverse events reported in 21 (18.9%) omadacycline-treated patients and 20 (18.5%) linezolid-treated patients. There were no significant alterations of cardiovascular, renal or hepatic safety laboratory values. The table below lists 10 specific treatment-emergent adverse events that occurred in five or more patients in either treatment group.

<table>
<thead>
<tr>
<th>Adverse Event</th>
<th>Omadacycline (N = 111)</th>
<th>Linezolid (N = 108)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Nausea</td>
<td>13</td>
<td>11.7%</td>
</tr>
<tr>
<td>Headache</td>
<td>7</td>
<td>6.3%</td>
</tr>
<tr>
<td>Constipation</td>
<td>5</td>
<td>4.5%</td>
</tr>
<tr>
<td>Fatigue</td>
<td>5</td>
<td>4.5%</td>
</tr>
<tr>
<td>Rash / rash erythematous</td>
<td>5</td>
<td>4.5%</td>
</tr>
<tr>
<td>Vomiting</td>
<td>5</td>
<td>4.5%</td>
</tr>
<tr>
<td>Dizziness</td>
<td>4</td>
<td>3.6%</td>
</tr>
<tr>
<td>Alanine aminotransferase increased(1)</td>
<td>3</td>
<td>2.7%</td>
</tr>
<tr>
<td>Aspartate aminotransferase increased(1)</td>
<td>3</td>
<td>2.7%</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>3</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

(1) Refers to an elevated level of this specific liver enzyme.

Post-hoc efficacy analysis. In October 2013, the FDA issued the current guidance for ABSSSI defining the ECR as \(^3\) 20% reduction in lesion size within 48 to 72 hours of initial therapy compared to the baseline measurement in ITT patients as the primary endpoint for efficacy. We conducted a retrospective analysis of the Phase 2 cSSSI data to assess the early clinical response rate in omadacycline- versus linezolid-treated patients. All ITT patients who had a lesion measurement taken within 48 to 72 hours following the initiation of treatment at an EOIV were included in this retrospective analysis. Also in accordance with FDA guidance, patients with diabetic foot infections were excluded from the analysis; these patients were excluded from enrollment in the Phase 3 clinical trial and will be excluded from enrollment in the upcoming Phase 3 ABSSSI registration trial. The Phase 2 protocol required that lesion size be measured by recording the maximal lesion dimension at baseline. Nineteen omadacycline-treated patients and 24 linezolid-treated patients were identified that fit the criteria for analysis. The mean percent reduction in lesion size in each of these patient groups at the EOIV and at the EOT visit are shown in the table below. Of the 19 omadacycline patients analyzed, 84.2% showed a reduction in lesion size of 20% or more compared to baseline measurements within 48 to 72 hours compared to 83.3% of patients in the linezolid arm. Both patient treatment arms showed a comparable ECR rate as well as additional lesion size reduction at the EOT visit. While our previous Phase 2 and 3 clinical trials were not designed to test statistical significance for the new ECR endpoint, we believe the results of the previous Phase 2 and 3 clinical trials, when considered together, support the hypothesis that omadacycline will demonstrate comparable efficacy to linezolid at the ECR endpoint.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Omadacycline (N = 19)</th>
<th>Linezolid (N = 24)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean % change in lesion size at EOIV (48-72 hours after baseline)</td>
<td>-39.0%</td>
<td>-44.5%</td>
</tr>
<tr>
<td>Mean % change in lesion size at EOT</td>
<td>-82.2%</td>
<td>-68.5%</td>
</tr>
<tr>
<td>ECR (&gt;20% reduction in lesion size 48-72 hours after baseline)</td>
<td>84.2%</td>
<td>83.3%</td>
</tr>
</tbody>
</table>
**Pharmacokinetics.** We observed that omadacycline exposure at the doses utilized in this study was similar to that measured in the earlier Phase 1 clinical trials in healthy volunteers. We believe these results are consistent with achieving therapeutic exposures using a once-daily regimen of omadacycline in both the IV and oral formulations.

**Summary.** In treating patients with serious infections involving the skin and surrounding tissues, we believe that IV and oral formulations of omadacycline appeared to demonstrate comparable safety, tolerability and activity to linezolid. Based on this work, we conducted an End-of-Phase 2 meeting with the FDA in 2008, and we determined to progress omadacycline into Phase 3 clinical trials for the treatment of cSSSI. Further, we believe that data from the post-hoc analyses of the ECR endpoint would support the belief that omadacycline will demonstrate comparable activity to linezolid within the ABSSSI study design in the SPA agreement with the FDA.

**Combined Data from Phase 2 and Phase 3 Non-Registration Clinical Trials in Serious Bacterial Skin Infections**

<table>
<thead>
<tr>
<th>Population(1)</th>
<th>Omadacycline</th>
<th>Linezolid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clinical Success(2) (%)</td>
<td>Total (N)</td>
</tr>
<tr>
<td>Intent-to-Treat</td>
<td>156 (87.2%)</td>
<td>179 (81.1%)</td>
</tr>
<tr>
<td>Clinically Evaluable</td>
<td>156 (97.5%)</td>
<td>160 (94.2%)</td>
</tr>
</tbody>
</table>

(1) An ITT population refers to all enrolled subjects, as defined in the protocol, who received at least one dose of the study drug. A CE population refers to all ITT subjects who had a qualifying infection, as defined in the protocol, received the study drug for more than five days, had all protocol-defined clinical evaluations and had not received non-study antibiotics.

(2) Clinical Success refers to the continued improvement or complete resolution of baseline signs and symptoms in the ITT or CE population, assessed by the clinical investigator 10 to 17 days after the last dose of the study drug. This assessment is known as the TOC.

(3) Adverse events are evaluated for all patients who received more than one dose of the study drug, and as such, are based on the ITT population.

**Note:** The table above shows combined data from our Phase 2 and Phase 3 non-registration clinical trials, neither of which had a sufficient number of patients enrolled to determine statistical non-inferiority.

**Phase 1 Clinical Trials**

We assessed omadacycline in 16 single-dosing and multiple-dosing Phase 1 clinical trials for both the IV and oral formulations, involving more than 500 healthy volunteer subjects. We believe that the results of these Phase 1 clinical trials appeared to show that omadacycline:

- was well tolerated, without complaints of nausea or vomiting in subjects treated with the commercial ready IV or oral formulations being used in Phase 3 registration trials at the planned therapeutic dose;
- was associated with asymptomatic increases in heart rate in healthy volunteer subjects but that were not evident in Phase 2 and Phase 3 non-registration clinical trials in patients with cSSSI;
- was associated with mild reversible increases in alanine aminotransferase, a liver enzyme, at doses above the therapeutic doses used in Phase 2 and Phase 3 non-registration clinical trials;
- was bioequivalent in both IV and oral formulations;
- was without induction or inhibition of CYP enzymes;
- had PK properties sufficient to support once-daily dosing regimens;

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• had minimal variations in bioavailability among men and women and patients at varying weights and sizes, supporting fixed dose formulations;
• did not affect the QTc interval as demonstrated in a thorough QTc study;
• would not require dosage adjustment in patients with hepatic impairment;
• has reduced oral bioavailability by food if tablets are taken too close after a meal or if a meal is eaten too soon after taking a tablet (currently requiring oral dosing six hours after a meal and no food for two hours after oral dosing to minimize any potential PK interference by food); and
• was excreted as active drug (unchanged parent compound without metabolism) with sufficient concentrations in urine to contemplate development for UTI.

From our End-of-Phase 2 meeting with the FDA regarding omadacycline, we have agreement that the preclinical and Phase 1 package for omadacycline is complete. We still plan to conduct a limited Phase 1 clinical trial to evaluate exposure levels of omadacycline in patients with impaired kidney function, a small urinary PK Phase 1B study in subjects with cystitis, a small Phase 1 BAL/ELF clinical trial to evaluate the PK properties of omadacycline in the lungs, and a Phase 1 pediatric patient clinical trial. We also intend to initiate a pediatric study prior to submission of the omadacycline NDA in order to meet Pediatric Research Equity Act, or PREA, requirements.

Preclinical Studies

We have conducted preclinical studies to assess the safety of omadacycline, including thirteen IV and oral studies in rats and monkeys to assess for efficacy in animal models of bacterial infections. In vitro and in vivo testing indicated the potential clinical utility of omadacycline in ABSSSI, CABP and UTI. The table below shows the in vitro activity of omadacycline against a broad range of bacterial pathogens found in ABSSSI, CABP and UTI, as assessed in independent laboratories using bacteria isolated from clinical specimens.

Clinical bacterial isolate minimum inhibitory concentration, or MIC, data from Phase 3 registration trials will determine the susceptibility or resistance breakpoint levels of omadacycline for the bacteria noted in the following tables. MIC values are indicative of a bacterium’s susceptibility or resistance to a particular antibiotic. A lower MIC value indicates potentially greater potency in vitro. Susceptibility and resistance data from other tetracycline-like compounds provide some guidance with regard to expected results for omadacycline. Historically, with older tetracyclines, MIC values for gram-positive bacteria were considered susceptible up to two micrograms per milliliter, or µg/mL, and for most gram-negative bacteria up to four µg/mL. Traditionally, bacteria considered resistant had MIC values for gram-positive bacteria of eight µg/mL and above, while gram-negative bacteria were considered resistant with MIC values of 16 µg/mL and higher.

Pharmacodynamic Characteristics Supporting Omadacycline Clinical Development in CABP

The microbiologic attributes of omadacycline, its effectiveness in non-neutropenic animal infection models, and its human pharmacokinetics suggest that omadacycline will be efficacious in community-acquired bacterial pneumonia. Omadacycline has demonstrated in vitro activity against the most common bacterial pathogen, Streptococcus pneumoniae (MIC90=0.06 to 0.125 µg/ml) and against H. influenzae (MIC90= 1.0 µg/ml) and Legionella pneumophila (MIC90= 0.25 µg/ml). Based on pharmacodynamics modeling using animal infection models, and taking into consideration an intact immune system, the projected efficacious plasma AUC to be attained in pneumonia would be between 0.5 and 1.1 µg*hr/ml. This would correspond to an AUC/MIC ratio of between 4.3-8.9. In humans, omadacycline has been shown to have a steady-state plasma AUC of approximately 10 µg*hr/ml—well above the AUC required for projected clinical efficacy based upon these animal models. Other factors may also contribute to efficacy, including low protein binding (< 20% in humans) and high tissue concentrations (in rats, omadacycline concentrations are 5.8 times greater than the plasma concentrations).
The microbiologic and pharmacokinetic attributes of omadacycline also compare favorably to tigecycline, which was approved for the treatment of moderate to severe CABP (IV-only) with robust clinical efficacy. Whereas the activity of omadacycline against *S. pneumoniae* is similar (0.06-0.125 µg/ml compared to 0.06 for tigecycline), the human plasma AUC (approximately 4.7 µg*hr/ml for tigecycline vs approximately 10 µg*hr/ml for omadacycline) and human protein binding (>80% for tigecycline and <20% for omadacycline). Human lung concentrations for tigecycline are approximate twice the concentration attained in plasma. Although human data for lung concentrations of omadacycline are not available, in rat studies, the lung concentrations were 5.8 times greater than in plasma, consistent with robust penetration into lung tissues. The estimated AUC/MIC ratio necessary for efficacy for tigecycline is approximately 12.8. Using the *S. pneumoniae* MIC90 of 0.06 ug/ml, which suggests that a plasma AUC of at least 0.8 µg*hr/ml, is required for clinical efficacy of tigecycline and is within the calculated range of efficacious plasma AUC levels for omadacycline based on animal studies noted above. These data suggest that the pharmacodynamics characteristics of omadacycline compare favorably to tigecycline and support the clinical development of omadacycline in CABP.

### In Vitro Microbiology Studies

In the tables below, the column labeled “Number of Isolates” indicates the number of patients from whom an isolate of the organism was obtained. MIC90 indicates the concentration of drug that inhibits 90% of the pathogens *in vitro*, while MIC50 indicates the concentration of drug that inhibits 50% of the pathogens *in vitro*.

<table>
<thead>
<tr>
<th>Class</th>
<th>Organism</th>
<th>Number of Isolates</th>
<th>MIC50 (µg / mL)</th>
<th>MIC90 (µg / mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gram-positive pathogens</td>
<td><em>Staphylococcus aureus</em> (MSSA)</td>
<td>52</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td><em>Staphylococcus aureus</em> (MRSA)</td>
<td>111</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>Coagulase-negative <em>staphylococci</em></td>
<td>152</td>
<td>0.25</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td><em>Enterococcus faecalis</em> (VSE)(1)</td>
<td>107</td>
<td>0.25</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td><em>Enterococcus faecalis</em> (VRE)(2)</td>
<td>47</td>
<td>0.12</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td><em>Enterococcus faecium</em> (VSE)</td>
<td>56</td>
<td>0.12</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td><em>Enterococcus faecium</em> (VRE)</td>
<td>100</td>
<td>0.12</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td><em>Streptococcus pneumoniae</em></td>
<td>104</td>
<td>0.12</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td><em>Streptococcus pneumoniae</em> (PRSP)(3)</td>
<td>51</td>
<td>0.12</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td><em>Streptococcus pyogenes</em></td>
<td>104</td>
<td>0.12</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td><em>Streptococcus agalactiae</em></td>
<td>53</td>
<td>0.12</td>
<td>0.25</td>
</tr>
<tr>
<td>Gram-negative pathogens</td>
<td><em>Haemophilus influenzae</em></td>
<td>105</td>
<td>0.50</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td><em>Moraxella catarrhalis</em></td>
<td>105</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td><em>Escherichia coli</em></td>
<td>203</td>
<td>2.00</td>
<td>4.00</td>
</tr>
<tr>
<td></td>
<td><em>Klebsiella pneumoniae</em></td>
<td>204</td>
<td>2.00</td>
<td>8.00</td>
</tr>
<tr>
<td></td>
<td><em>Acinetobacter baumannii</em></td>
<td>53</td>
<td>0.25</td>
<td>4.00</td>
</tr>
<tr>
<td>Anaerobic pathogens</td>
<td><em>Bacteroides fragilis</em></td>
<td>100</td>
<td>1.00</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td><em>Clostridium perfringens</em></td>
<td>100</td>
<td>1.00</td>
<td>4.00</td>
</tr>
<tr>
<td></td>
<td>Anaerobic gram-positive cocci</td>
<td>101</td>
<td>0.25</td>
<td>0.50</td>
</tr>
<tr>
<td>Atypical pathogens</td>
<td><em>Legionella pneumophila</em></td>
<td>25</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td><em>Chlamydia pneumoniae</em></td>
<td>5</td>
<td>—</td>
<td>0.125-0.25</td>
</tr>
</tbody>
</table>

(1) Vancomycin-sensitive enterococcus (“VSE”)
(2) Vancomycin-resistant enterococcus (“VRE”)
(3) Penicillin-resistant s. pneumonia (“PRSP”)
The tables below compare the *in vitro* activity of omadacycline and various antibiotics for ABSSSI, CABP and UTI pathogens against various strains of bacteria, including those resistant to current antibiotics.

### Key Pathogens—ABSSSI

<table>
<thead>
<tr>
<th>Organism (Number of Isolates)</th>
<th>MIC90 (µg/ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Omadaccline</td>
</tr>
<tr>
<td>Staphylococcus aureus (MRSA) (111)</td>
<td>0.25</td>
</tr>
<tr>
<td>Staphylococcus aureus (MSSA) (52)</td>
<td>0.25</td>
</tr>
<tr>
<td>Streptococcus pyogenes (104)</td>
<td>0.12</td>
</tr>
</tbody>
</table>

(1) Amoxicillin-clavulanic acid.
(2) “>” indicates the highest concentration tested.

### Key Anaerobe Pathogens—ABSSSI

<table>
<thead>
<tr>
<th>Organism (Number of Isolates)</th>
<th>MIC90 (µg/ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Omadaccline</td>
</tr>
<tr>
<td>Anaerobic gram-positive cocci (101)</td>
<td>0.5</td>
</tr>
</tbody>
</table>

(1) “>” indicates the highest concentration tested.

### Key Typical Pathogens—CABP

<table>
<thead>
<tr>
<th>Organism (Number of Isolates)</th>
<th>MIC90 (µg/ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Omadaccline</td>
</tr>
<tr>
<td>Staphylococcus aureus (MRSA) (111)</td>
<td>0.25</td>
</tr>
<tr>
<td>Streptococcus pneumoniae, PRSP (51)</td>
<td>0.12</td>
</tr>
<tr>
<td>Haemophilus influenzae (105)</td>
<td>1</td>
</tr>
<tr>
<td>Moraxella catarrhalis (105)</td>
<td>0.25</td>
</tr>
</tbody>
</table>

(1) “>” indicates the highest concentration tested.
(2) “N/A” indicates that the antibiotic is not indicated against this organism and/or has no useful therapeutic activity.

### Key Atypical Pathogens—CABP

<table>
<thead>
<tr>
<th>Organism (Number of Isolates)</th>
<th>MIC90 (µg/ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Omadaccline</td>
</tr>
<tr>
<td>Legionella pneumophila (25)</td>
<td>0.25</td>
</tr>
</tbody>
</table>

(1) “N/A” indicates that the antibiotic is not indicated against this organism and/or has no useful therapeutic activity.
(2) “<” indicates the lowest concentration tested.

### Key Pathogens—UTI

<table>
<thead>
<tr>
<th>Organism (Number of Isolates)</th>
<th>MIC90 (µg/ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Omadaccline</td>
</tr>
<tr>
<td>Escherichia coli ESBL pos. (102)</td>
<td>4</td>
</tr>
<tr>
<td>Staphylococcus aureus (MRSA) (111)</td>
<td>0.25</td>
</tr>
<tr>
<td>CoNS, MR (114)(1)</td>
<td>1</td>
</tr>
<tr>
<td>Enterococcus species (310)</td>
<td>0.25</td>
</tr>
</tbody>
</table>

(1) ESBL: Extended Spectrum beta-lactamase producing.
In a recent U.S. Medacorp survey issued in 2013, 97.1% of the 103 surveyed physicians believed that their patients with a resistant *E. coli* could benefit from a new well tolerated bioequivalent IV/oral antibiotic. Furthermore, surveyed physicians suspected high levels of multi-drug resistant *E. coli* (MDR-E) resistant to oral antibiotics in community UTIs. Almost half of the physicians surveyed suspected a MDR-E in 10-20% of community UTIs and 12% suspect MDR-E in greater than 20% of community UTIs. The Medacorp survey confirmed MDR-E resistant to oral antibiotics in the treatment of community UTIs is high, with 19% resistance to trimethoprim/sulfamethoxazole (TMP/SMX), 16% to beta-lactams (ESBL +ve) only, 18% to quinolones only, 14% to at least two of the three traditional classes, and 10% resistant to all three classes of antibiotic.

Omadacycline may provide a potential treatment option in patients with MDR-E. Further clinical trial investigation is planned given omadacycline’s renal clearance >40% with parent compound and potentially well-tolerated once-daily IV/oral profile.

**Proposed Phase 3 Omadacycline Clinical Trials**

We have conformed our proposed Phase 3 clinical trial designs for omadacycline to incorporate changes in regulatory guidance from the FDA over the last five years for the development of antibiotics as treatment for both ABSSSI and CABP. Following modification of the FDA's guidance, we reached agreements in November 2013 with the FDA in the form of SPA amendment agreements for both a planned Phase 3 ABSSSI clinical trial and a planned Phase 3 CABP clinical trial. Subsequently, in late 2013 and early 2014, the FDA published new guidance for the industry on developing drugs for ABSSSI and draft guidance for the industry for developing drugs for CABP, both of which are consistent with the SPA that we received in November 2013.

**ABSSSI Trial**

The Phase 3 clinical trial of omadacycline for the treatment of ABSSSI is designed to be a randomized, controlled and double-blinded multi-center study targeting the enrollment of approximately 650 patients, in which we will compare IV and oral forms of omadacycline to linezolid. The clinical trial design contemplates two IV doses of 100 mg of omadacycline (dosed at a 12 hour interval) on the first day of treatment, followed by one 100 mg IV dose of omadacycline every 24 hours on subsequent days, with a potential switch to one 300 mg oral dose (two 150 mg tablets) of omadacycline every 24 hours, compared to one 600 mg IV dose of linezolid every 12 hours, with a potential switch to one 600 mg oral dose every 12 hours. All subjects may be treated for up to 14 days. All medications will follow a double-blinded and double-dummy blinding design.

The primary endpoint for this clinical trial is non-inferiority of omadacycline compared to linezolid in the modified intent-to-treat, or mITT, population using a 10% non-inferiority margin. The mITT population refers to all randomized subjects without a potentially causative gram-negative causative pathogen at baseline. The primary endpoint for FDA purposes in this clinical trial will be ECR, which, according to the most recent FDA guidance issued in October 2013, refers to a greater than or equal to 20% reduction in lesion size compared to baseline assessed at 48 to 72 hours after initiation of treatment. For EMA purposes, the primary endpoint will be clinical response at TOC, determined 16 to 20 days after the initial dose. Secondary endpoints include microbiological response and safety. In addition, drug levels in plasma will be assessed in a subset of the patients enrolled in the clinical trial. Major skin infection subclasses that will be allowed in the study include cellulitis, wound and major abscesses, all with a minimum infection lesion total surface area of contiguous involvement of greater than or equal to 75 square centimeters, or cm. The proportion of patients enrolled with major abscesses will not exceed 30% of the total enrolled population. Patients who have previously taken effective long half-life
CABP Trial

The Phase 3 clinical trial of omadacycline for the treatment of CABP, pursuant to our SPA agreement with the FDA, is designed to be a randomized, controlled and double-blinded multi-center study targeting the enrollment of approximately 750 patients, in which we compare IV and oral forms of omadacycline to moxifloxacin. The clinical trial design contemplates two 100 mg IV doses of omadacycline (dosed at a 12 hour interval) on the first day of treatment, followed by one 100 mg IV dose of omadacycline every 24 hours on subsequent days, with a potential switch to one 300 mg oral dose (two 150 mg tablets) of omadacycline every 24 hours, compared to one 400 mg IV dose of moxifloxacin every 24 hours, with a potential switch to one 400 mg oral dose every 24 hours. All subjects may be treated for up to 14 days. All medications will follow a double-blind and double-dummy blinding design.

The primary endpoint for this study is non-inferiority of omadacycline compared to moxifloxacin in the ITT population using a 10% non-inferiority margin. The ITT population in this clinical trial refers to all randomized patients. The primary endpoint for FDA purposes in this clinical trial will be the improvement in at least two of four patient-reported symptoms (cough, sputum production, chest pain and shortness of breath) without deterioration in any of the four symptoms at 72 to 120 hours after initiation of treatment, which is referred to as ECR in relation to CABP. For EMA purposes, the primary endpoint will be clinical response at TOC, determined 16 to 20 days after the initial dose. Key secondary endpoints include microbiological response, safety and all-cause mortality. At least 85% of the patients in the study will be required to have moderate-to-severe CABP, as defined by the protocol. Patients who have previously taken a dose of a short acting, potentially effective antibiotic for the treatment of an infection within 72 hours of receiving the first dose of study medication will be allowed for enrollment but only up to 25% of the total ITT population. While we anticipate that all patients will be initiated on IV treatment in a hospital setting, depending on physician assessment, patients may be subsequently discharged to oral therapy for both treatment arms.

Sarecycline

Sarecycline is a novel, next-generation tetracycline that we designed specifically for dermatological use. We exclusively licensed the U.S. rights to sarecycline for the treatment of acne to Actavis. Actavis funds all U.S. development costs for this program. In exchange for license rights, we earn milestone payments upon the achievement of development and regulatory progress, of which a $4.0 million payment for the initiation of Phase 3 in December 2014 was received in January 2015, with $17.0 million remaining to be achieved, and a royalty on eventual net sales, if any. The next milestone is $5.0 million upon NDA submission. We retain development and commercialization rights outside of the United States, which are available for licensing to other partners in key international markets, such as the European Union, Japan, the rest of Asia, and Latin America. Actavis completed a Phase 2 clinical trial in early 2013 of sarecycline for the treatment of acne, the results of which were recently presented at an Actavis investor day. Actavis initiated Phase 3 clinical trials of sarecycline in December 2014 for acne. In addition, we have granted Actavis an exclusive license to develop and commercialize sarecycline for the treatment of rosacea in the United States, which converted to a non-exclusive license in December 2014 after Actavis did not exercise its development option with respect to rosacea. There are currently no clinical trials in rosacea under way.

Market

Both acne and rosacea can be disfiguring conditions with significant social and medical costs. According to IMS sales data, over $3.0 billion was spent on treatments for acne in 2013. In excess of $1.3 billion was spent in...
2011 on various oral formulations of doxycycline or minocycline to treat these conditions. Periostat, reformulated doxycycline, and Solodyn, reformulated minocycline, recorded peak sales of approximately $300.0 million in 2012 and $750.0 million in 2011, respectively.

The most common oral treatments prescribed by dermatologists are tetracycline derivatives, which dermatologists widely accept as a therapy for moderate-to-severe acne. A common side effect associated with the use of any broad-spectrum antibacterial agent is gastrointestinal upset and antibiotic-associated infections caused by the destruction of the normal bacterial flora. In addition, we believe there is a growing concern and awareness of the development of antibiotic-resistant bacteria from the heavy use of broader-spectrum antibiotics, such as the older-generation tetracyclines, when broad-spectrum antibacterial therapy is not necessary. Similarly, for patients with severe acne, we believe that oral retinoid drugs are the leading option, but these drugs are not universally effective and also can carry potentially serious side effects. Therefore, we believe there is an unmet need for an improved tetracycline for this market.

**Development**

In the treatment of acne, we believe that a new product that targets a narrower spectrum of bacterial types, including *Propionibacterium acnes*, a key bacterium associated with acne, would offer advantages over the existing therapies, including older tetracycline derivatives. As compared to existing tetracyclines being used for the treatment of acne, preclinical studies suggest that sarecycline may have an improved profile that includes a narrow spectrum of antibacterial activity, oral bioavailability, anti-inflammatory activity, favorable GI tolerability, and favorable PK properties.

**Other Product Candidates**

We also have discovered and developed a series of product candidates through to proof-of-concept stage in animal models. Some of these tetracycline-derived, novel molecular entities were designed to utilize the recognized immune-modulation, anti-inflammatory and other beneficial properties of the tetracycline class. These research stage programs include potential product candidates for multiple sclerosis, spinal muscular atrophy, systemic inflammatory diseases such as rheumatoid arthritis and inflammatory bowel diseases, and an oral, narrow-spectrum, tetracycline-derived compound with activity against *Clostridium difficile in vitro* and in a rodent model of *Clostridium difficile-associated diarrhea*. We are currently evaluating which of these programs, if any, we may elect to develop further.

**Commercialization Strategy**

Assuming approval from regulatory authorities, we currently intend to market omadacycline as an empiric monotherapy that will be commercialized worldwide for the treatment of serious, community-acquired bacterial infections. We retain worldwide commercial rights to omadacycline. In the United States and Europe, we continue to reserve the right to either commercialize omadacycline alone, through one or more pharmaceutical companies that have established commercial capabilities or some combination thereof.

We believe that there is a similar rapidly growing need in other markets throughout the world, including established Asian markets such as Japan, Korea and Taiwan, as well as emerging markets, such as China, Russia, South America and India. We plan to pursue expansion of omadacycline to these markets through partnerships following the commercialization of omadacycline in the United States.

We exclusively licensed U.S. rights to Actavis to develop and commercialize sarecycline for the treatment of acne. In addition, we have granted Actavis an exclusive license to develop and commercialize sarecycline for the treatment of rosacea in the United States, which converted to a non-exclusive license in December 2014 after Actavis did not exercise its development option with respect to rosacea. There are currently no clinical trials in rosacea under way. We retain development and commercialization rights to sarecycline in all other regions of the
globe. We plan to leverage the existing development and commercialization infrastructure of one or more potential partners to advance sarecycline through registration and commercialization.

**Competition**

Our potential competitors include large pharmaceutical and biotechnology companies, specialty pharmaceutical companies and generic drug companies. We believe that our product candidates offer key potential advantages over competitive products that could enable our product candidates, if approved, to capture meaningful market share from our competitors.

If approved by the FDA, omadacycline will compete with other antibiotics in the serious bacterial skin infection market. These include vancomycin, marketed as a generic by Abbott laboratories and others; linezolid, marketed as Zyvox by Pfizer Inc.; daptomycin, marketed as Cubicin by Cubist Pharmaceuticals, Inc.; dalbavancin, approved in May 2014 and marketed as Dalvance by Actavis; tedizolid, marketed as Sivextro by Cubist Pharmaceuticals, Inc.; ortavancin, approved in August 2014 and marketed as Orbaact by The Medicines Company; quinupristin/dalfopristin, marketed as Synercid by Pfizer, Inc.; tigecycline, marketed as Tygacil by Pfizer Inc.; telavancin, marketed as Vibativ by Theravance, Inc.; ceftaroline, marketed as Teflaro by Actavis; and generic trimethoprim/sulfamethoxazole.

Further, we expect that product candidates currently in Phase 3 clinical development, or that could enter Phase 3 clinical development in the near future, may represent significant competition if approved. These include delafloxacin and radezolid, under development by Melinta Therapeutics; CG-400549, under development by Crystal Genomics; GSK2140944, under development by GSK; nemonoxacin, under development by TaiGen Biotechnology; avarofloxacin, under development by Actavis; and brilacidin, under development by Cellicutix.

If approved by the FDA, omadacycline will also compete with other antibiotics in the community-acquired pneumonia market. These include azithromycin, marketed as Zithromax and Z-PAK by Pfizer Inc. and available as a generic; clarithromycin, marketed as Biaxin by Abbott Laboratories and available as a generic; moxifloxacin, marketed as Avelox by Bayer AG; levofloxacin, marketed as Levaquin by Johnson & Johnson and available as a generic; tigecycline, marketed as Tygacil by Pfizer Inc.; linezolid, marketed as Zyvox by Pfizer Inc.; ceftriaxone, marketed as Rocephin by F. Hoffman-La Roche Ltd and available as a generic; and ceftaroline, marketed as Teflaro by Actavis. We are also aware of various drugs that are or may eventually be under development for the treatment of CABP, delafloxacin and radezolid, under development by Melinta Therapeutics; solithromycin, under development by Cempra, Inc.; GSK2140944, under development by GSK; lefamulin, under development by NabrivaTherapeutics; nemanoxacin, under development by TaiGen Biotechnology; and avarofloxacin, under development by Actavis.

A number of competitors exist in the UTI indication. Generic potential competitors include levofloxacin, ciprofloxacin, trimethoprim/sulfamethoxazole, ceftriaxone and amoxicillin/clavulanic acid. Several branded injectable-only antibiotics are also used in hospitals, including imipenem/cilastatin, piperacillin/tazobactam and gentamicin brands. A limited number of companies are developing new oral antibiotics for the treatment of UTI infections, including eravacycline by Tetraphase Pharmaceuticals and finalaxoxin by MerLion Pharmaceuticals.

Many of our potential competitors have substantially greater financial, technical and human resources than we do, as well as greater experience in the discovery and development of product candidates, obtaining FDA and other regulatory approvals of products and the commercialization of those products. Our competitors’ drugs may be more effective, or more effectively marketed and sold, than any product candidate we may commercialize and may render our product candidates obsolete or non-competitive before we can recover the expenses of our development and commercialization. We anticipate that we will face intense and increasing competition as new drugs enter the market and advanced technologies become available. Finally, the development of new treatment methods for the diseases we are targeting could render our product candidates non-competitive or obsolete.
Manufacturing

We do not own or operate current Good Manufacturing Practices manufacturing facilities for the production of any of our product candidates, nor do we have plans to develop our own manufacturing operations in the foreseeable future. We generally develop the initial synthesis routes for our compounds and partner with third-party manufacturers to scale-up and develop these processes, analytical methods and formulations. Our product candidates have to date been organic compounds of low molecular weight, commonly referred to as small molecules. They are manufactured in synthetic processes from starting materials that have to date been generally available. We currently rely on a small number of third-party contract manufacturers for all of our required raw materials, drug substance and finished product for our preclinical research and clinical trials. We do not have long-term commercial supply agreements with any of these third parties. We also do not have any current contractual relationships for the manufacture of commercial supplies of any of our product candidates should they be approved. We intend to enter into agreements with third-party contract manufacturers for the commercial production of those product candidates to ensure that commercial supply is available at the time of regulatory approval.

For omadacycline, the manufacturing process has been refined to commercial scale, and we have produced stable IV and oral drug product formulations. These products are currently undergoing stability testing and have demonstrated room temperature stability through at least three years. We have identified qualified commercial manufacturers for omadacycline, and we intend to use those manufacturers to complete process validation in support of potential market authorization filing, approval and launch.

Research and Development

We have and will continue to make substantial investments in research and development. Our research and development expenses totaled $5.0 million and $4.6 million in 2014 and 2013, respectively.

In the ordinary course of business, we enter into agreements with third parties, such as contract research organizations, medical institutions, clinical investigators and contract laboratories, to conduct our clinical trials and aspects of our research and preclinical testing. These third parties provide project management and monitoring services and regulatory consulting and investigative services.

Intellectual Property

The proprietary nature of, and protection for, our proprietary drug development platform, our product candidates and our discovery programs, processes and know-how are important to our business. We seek patent protection in the United States and internationally for areas such as composition of matter and the chemistries that allow for the synthesis of novel, substituted tetracycline compounds that exhibit significant antibacterial and/or anti-inflammatory activity, and any other technology to which we have rights, where available and when appropriate. Our policy is to pursue, maintain and defend patent rights, whether developed internally or licensed from third parties, and to protect the technology, inventions and improvements that are commercially important to the development of our business. We also rely on trade secrets that may be important to the development of our business.

Our commercial success will depend in part on obtaining and maintaining patent protection and trade secret protection of our proprietary technologies and compounds, our current and future product candidates and the methods used to develop and manufacture them, as well as successfully defending these patents against third-party challenges. Our ability to prevent third parties from making, using, selling, offering to sell or importing our products and technology depends on the extent to which we have rights under valid and enforceable patents or trade secrets that cover these activities. We cannot be sure that patents will be granted with respect to any of our pending patent applications or with respect to any patent applications filed by us in the future, nor can we be sure that any of our existing patents or any patents that may be granted to us in the future will be commercially useful in protecting our technology.
As of December 31, 2014, our patent portfolio of owned or exclusively licensed patents and applications includes 51 issued U.S. patents, 23 pending U.S. patent applications and corresponding foreign national or regional counterpart patents or applications. We expect that the patents and patent applications in this portfolio, if issued, and if the appropriate maintenance, renewal, annuity or other government fees are paid, would expire between 2020 and 2033, excluding any additional terms from patent term adjustments or patent term extensions under the Hatch-Waxman Amendments.

**Omadacycline**

The patent portfolio for omadacycline is directed to cover compositions of matter, formulations, salts and polymorphs, manufacturing methods and methods of use. The patents and patent applications covering omadacycline include patents and patent applications owned by us. In some corresponding foreign patents and patent applications, omadacycline is covered along with other compounds in patents and patent applications that are owned jointly by us and Tufts University that are subject to a license agreement we have with Tufts University. The issued composition of matter patent in the United States (U.S. Patent No. 7,553,828), if the appropriate maintenance, renewal, annuity, or other governmental fees are paid, is expected to expire in 2023. We believe that an additional term of potentially up to five years for one of our omadacycline patents may result from the patent term extension provision of the Hatch-Waxman Amendments of 1984. Omadacycline has received qualified infectious disease product, or QIDP, designation under the Generating Antibiotic Incentives Now Act, or the GAIN Act. This may provide up to an additional five years of market exclusivity layered with protection provided by the Hatch-Waxman Amendments, which enables exclusivity to 2028. We expect that the other patents and patent applications in this portfolio, if issued, and if the appropriate maintenance, renewal, annuity or other governmental fees are paid, would expire between 2021 and 2029, excluding any additional terms from patent term adjustments or patent term extensions under the Hatch-Waxman Amendments.

**Sarecycline**

The patent portfolio for our acne and rosacea program is directed to cover compositions of matter, methods of use, as well as salts and polymorphs of sarecycline. As of December 31, 2014, our patent portfolio includes issued U.S. Patent No. 8,318,706, or the ‘706 Patent, which covers composition of matter of sarecycline and issued U.S. Patent No. 8,513,223, or the ‘223 Patent, and corresponding foreign national or regional counterpart applications. The ‘706 Patent is expected to expire in 2031, and the ‘223 Patent is expected to expire in 2029, if the appropriate maintenance, renewal, annuity or other governmental fees are paid. We may also be entitled to an extension of the patent term for one of the patents covering sarecycline pursuant to the patent term extension provision of the Hatch-Waxman Amendments, as described in the section “U.S. Government Regulation – Patent Term Restoration and Marketing Exclusivity.”

**Intermezzo**

As of December 31, 2014, our patent portfolio of owned or exclusively licensed patents and applications includes four issued U.S. patents, two pending U.S. patent applications and corresponding foreign national or regional counterpart patents and applications which are directed to formulations and methods of use. The issued U.S. patents expire in 2025.

**Trade Secrets**

In addition to patents, we rely on trade secrets and know-how to develop and maintain our competitive position. Trade secrets and know-how can be difficult to protect. We seek to protect our proprietary technology and processes, in part, by confidentiality agreements and invention assignment agreements with our employees, consultants, scientific advisors, contractors and commercial partners. These agreements are designed to protect our proprietary information and, in the case of the invention assignment agreements, to grant us ownership of technologies that are developed through a relationship with a third party. We also seek to preserve the integrity and confidentiality of our data, trade secrets and know-how by maintaining physical security of our premises and physical and electronic security of our information technology systems.
Trademarks
Further, we seek trademark protection in the United States where available and when appropriate. We have registered the service marks and trademarks PARATEK and PARATEK PHARMACEUTICALS & DESIGN, which we use in connection with our pharmaceutical research and development as well as our product candidates. The PARACYCLINE mark is registered in the European Union and Japan. In addition, we have registered the service mark THE ANTIBIOTIC RESISTANCE COMPANY in the European Union and Japan, which may be used in connection with the research and development of pharmaceuticals, drugs and antibiotics and the test, evaluation research and development of antibiotics and other pharmaceutical products, respectively.

Collaborations and License Agreements
Our commercial strategy is to partner with established pharmaceutical companies to develop and market products for the larger “community” markets, while retaining certain rights to products aimed at concentrated markets, such as hospital-based products, in the United States where we may seek to participate in development and commercialization.

Actavis
In July 2007, we entered into a collaborative research and license agreement with Actavis, under which we granted Actavis an exclusive license to research, develop and commercialize tetracycline products for use in the United States for the treatment of acne and rosacea. Since Actavis did not exercise its development option with respect to the treatment of rosacea prior to initiation of a Phase III trial for the product, the license grant to Actavis converted to a non-exclusive license for the treatment of rosacea as of December 2014. Under the terms of the agreement, we and Actavis are responsible for, and are obligated to use, commercially reasonable efforts to conduct specified development activities for the treatment of acne, and, if requested by Actavis, we may conduct certain additional development activities to the extent we determine in good faith that we have the necessary resources available for such activities. Actavis has agreed to reimburse us for our costs and expenses, including third-party costs, incurred in conducting any such development activities.

Under the terms of the agreement, Actavis is responsible for and is obligated to use commercially reasonable efforts to develop and commercialize tetracycline compounds that are specified in the agreement for the treatment of acne. Actavis may elect to advance the development of sarecycline for the treatment of rosacea in accordance with the terms of the agreement so the license granted to Actavis was converted to a non-exclusive license for the treatment of rosacea. We have agreed during the term of the agreement not to directly or indirectly develop or commercialize any tetracycline compounds in the United States for the treatment of acne and rosacea, and Actavis has agreed during the term of the agreement not to directly or indirectly develop or commercialize any tetracycline compound included as part of the agreement for any use other than as provided in the agreement.

We earned an upfront fee in the amount of $4.0 million upon the execution of the agreement, $1.0 million upon filing of an initial new drug application in 2010, and $2.5 million upon initiation of Phase 2 trials in 2012. In December 2014, we also earned $4.0 million upon initiation of Phase 3 trials associated with the agreement. In addition, Actavis may be required to pay us an aggregate of approximately $17.0 million upon the achievement of specified future regulatory milestones, the next being $5.0 million upon acceptance by the FDA of an NDA submission. Actavis is also obligated to pay us tiered royalties, ranging from the mid-single digits to the low double digits, based on net sales of tetracycline compounds developed under the agreement, with a standard royalty reduction post patent expiration for such product for the remainder of the royalty term. Actavis’ obligation to pay us royalties for each tetracycline compound it commercializes under the agreement expires on the later of the expiration of the last to expire patent that covers the tetracycline compound in the United States and the date on which generic drugs that compete with the tetracycline compound reach a certain threshold market share in the United States.
Either we or Actavis may terminate the agreement for certain specified reasons at any time after Actavis has commenced development of any tetracycline compound, including if Actavis determines that it would not be commercially viable to continue to develop or commercialize the tetracycline compound and/or that it is unlikely to obtain regulatory approval of the tetracycline compound, and, in any case, no backup tetracycline compound is in development or ready to be developed and the parties are unable to agree on an extension of the development program or an alternative course of action. Either we or Actavis may terminate the agreement for the other party’s uncured breach of a material term of the agreement on 60 days’ notice (unless the breach relates to a payment term, which requires a 30-day notice) or upon the bankruptcy of the other party that is not discharged within 60 days. Upon the termination of the agreement by Actavis for our breach, Actavis’ license will continue following the effective date of termination, subject to the payment by Actavis of the applicable milestone and royalty payments specified in the agreement unless our breach was with respect to certain specified obligations, in which event the obligation of Actavis to pay us any further royalty or milestone payments will terminate. Upon the termination of the agreement by us for Actavis’ breach or the voluntary termination of the agreement by Actavis, Actavis’ license under the agreement will terminate.

Tufts University

In February 1997, we entered into a license agreement with Tufts University, or Tufts, under which we acquired an exclusive license to certain patent applications and other intellectual property of Tufts related to the drug resistance field to develop and commercialize products for the treatment or prevention of bacterial or microbial diseases or medical conditions in humans or animals or for agriculture. We subsequently entered into nine amendments to that agreement to include patent applications filed after the effective date of the original license agreement, to exclusively license additional technology from Tufts, to expand the field of the agreement to include disinfectant applications, and to change the royalty rate and percentage of sublicense income paid by us to Tufts under our sublicense agreements with specified sublicensees. We are obligated under the agreement to provide Tufts with annual diligence reports and a business plan and to meet certain other diligence milestones. We have the right to grant sublicenses of the licensed rights to third parties, which will be subject to the prior approval of Tufts unless the proposed sublicensee meets a certain net worth or market capitalization threshold. We are primarily responsible for the preparation, filing, prosecution and maintenance of all patent applications and patents covering the intellectual property licensed to us under the agreement at our sole expense. We have the first right, but not the obligation, to enforce the licensed intellectual property against infringement by third parties.

We issued Tufts 1,024 shares of our common stock on the date of execution of the agreement, and we may be required to make certain payments of up to $0.3 million to Tufts upon the achievement by products developed under the agreement of specified development and regulatory approval milestones. We have already made a payment of $50,000 to Tufts for achieving the first milestone following commencement of the Phase 3 non-registration clinical trial for omadacycline. We are also obligated to pay Tufts a minimum royalty payment in the amount of $25,000 per year, if we do not sponsor at least $100,000 of research at Tufts in such year. In the past, we have opted to satisfy our minimum royalty obligations to Tufts by providing an equivalent amount of sponsored research or receiving a waiver from Tufts with respect to such obligations. We expect that we will satisfy our future minimum royalty obligations to Tufts by making an annual royalty payment of $25,000 to Tufts. In addition, we are obligated to pay Tufts royalties based on gross sales of products, as defined in the agreement, ranging in the low single digits depending on the applicable field of use for such product sale. If we enter into a sublicense under the agreement, we will be obligated to pay Tufts a percentage, ranging from the low-to-mid teens based on the applicable field of use for such product, of the royalty payments made to us by the sublicensee or the amount of royalty payments that would have been paid by us to Tufts if we had sold the products.

Unless terminated earlier, the agreement will expire at the same time as the last-to-expire patent in the patent rights licensed to us under the agreement and after any such expiration we will continue to have an
exclusive, fully-paid-up license to such intellectual property licensed from Tufts. Tufts has the right to terminate the agreement upon 30 days’ notice should we fail to make a material payment under the agreement or commit a material breach of the agreement and not cure such failure or breach within such 30 day period, or if, after we have started to commercialize a product under the agreement, we cease to carry on our business for a period of 90 consecutive days. We have the right to terminate the agreement at any time upon 180 days’ notice. Tufts has the right to convert our exclusive license to a non-exclusive license if we do not commercialize a product licensed under the agreement within a specified time period.

Purdue Pharmaceuticals L.P.

In July 2009, we entered into a collaboration agreement with Purdue Pharma, or the Purdue Collaboration Agreement, that grants an exclusive license to Purdue Pharma to commercialize Intermezzo in the United States and pursuant to which:

- Purdue Pharma paid us a $25.0 million non-refundable license fee in August 2009;
- Purdue Pharma paid us a $10.0 million non-refundable intellectual property milestone in December 2011 when the first of two issued formulation patents was listed in the FDA’s Approved Drug Products with Therapeutic Equivalence Evaluations, or Orange Book;
- Purdue Pharma paid us a $10.0 million non-refundable intellectual property milestone in August 2012 when the first of two issued method of use patents was listed in the FDA’s Orange Book;
- We transferred the Intermezzo NDA to Purdue Pharma, and Purdue Pharma is obligated to assume the expense associated with maintaining the NDA and further development of Intermezzo in the United States, including any expense associated with post-approval studies;
- Purdue Pharma is obligated to commercialize Intermezzo in the United States at its expense using commercially reasonable efforts;
- Purdue Pharma is obligated to pay us tiered base royalties on net sales of Intermezzo in the United States ranging from the mid-teens up to the mid-20% level, with each such royalty tier subject to an increase by a percentage in the low single digits upon a specified anniversary of regulatory approval of Intermezzo. The base royalty is tiered depending upon the achievement of certain fixed net sales thresholds by Purdue Pharma, which net sales levels reset each year for the purpose of calculating the royalty. The royalty tiers are subject to reductions upon generic entry and patent expiration. Purdue Pharma is obligated to pay royalties until the later of 15 years from the date of first commercial sale in the United States or the expiration of patent claims related to Intermezzo; and
- Purdue Pharma is obligated to pay us up to an additional $70.0 million upon the achievement of certain net sales targets for Intermezzo in the United States.

We had an option to co-promote Intermezzo to psychiatrists in the United States and such option was terminated as a result of the Merger.

The Purdue Collaboration Agreement expires on the expiration of Purdue Pharma’s royalty obligations. Purdue Pharma has the right to terminate the Purdue Collaboration Agreement at any time upon advance notice of 180 days. The Purdue Collaboration Agreement is also subject to termination by Purdue Pharma in the event of FDA or governmental action that materially impairs Purdue Pharma’s ability to commercialize Intermezzo or the occurrence of a serious event with respect to the safety of Intermezzo. The Purdue Collaboration Agreement may also be terminated by us upon Purdue Pharma commencing an action that challenges the validity of Intermezzo related patents. We also have the right to terminate the Purdue Collaboration Agreement immediately if Purdue Pharma is excluded from participation in federal healthcare programs. The Purdue Collaboration Agreement may also be terminated by either party in the event of a material breach by or insolvency of the other party.
We also granted Purdue Pharma and an associated company the right to negotiate for the commercialization of Intermezzo in Mexico in 2013 and retained the rights to commercialize Intermezzo in the rest of the world.

During the first quarter of 2014, Purdue Pharma discontinued use of the Purdue Pharma sales force to actively market Intermezzo to healthcare professionals. Consequently, sales of the product have since declined.

In October 2014, we announced that our board of directors had approved a special dividend of, among other things, the right to receive, on a pro rata basis, 100% of any royalty income received by us prior to the second anniversary of the closing date of the Merger pursuant to the Purdue License Agreement.

In addition, we joined Purdue Pharma in actions against certain parties alleging patent infringement and seeking injunctives and other relief. See the section titled “Legal Proceedings—Intermezzo Patent Litigation.”

Shin Nippon Biomedical Laboratories Ltd.

In September 2013, we entered into the SNBL License Agreement with SNBL pursuant to which SNBL granted us an exclusive worldwide license to commercialize SNBL’s proprietary nasal drug delivery technology to develop TO-2070. We were developing TO-2070 as a treatment for acute migraine using SNBL’s proprietary nasal powder drug delivery system. Under the SNBL License Agreement, we were required to fund all development and regulatory approval with respect to TO-2070, at our cost. Pursuant to the SNBL License Agreement, we paid an upfront nonrefundable technology license fee of $1.0 million, and we were also obligated to pay up to an aggregate of $41.5 million upon the achievement of certain development, regulatory and sales milestones, and tiered, low double-digit royalties on annual net sales of TO-2070.

In September 2014, we and SNBL entered into a Termination Agreement and Release, or the SNBL Termination Agreement, pursuant to which, among other things, the SNBL License Agreement was terminated and we assigned all of our rights, interest and title to the TO-2070 assets to SNBL, including a pending U.S. patent application, in exchange for a portion of certain future net revenue received by SNBL as set forth in the SNBL Termination Agreement, up to an aggregate of $2.0 million.

Past Collaborations

Novartis

In September 2009, we and Novartis International Pharmaceutical Ltd., or Novartis, entered into a Collaborative Development, Manufacture and Commercialization License Agreement, or the Novartis Agreement, for the co-development and commercialization of omadacycline, which included a $70 million upfront payment from Novartis to us, future development and sales milestone payments and future royalty payments, depending on the success of omadacycline. Under the agreement, Novartis was to have led development activities for omadacycline, and we were to have co-developed omadacycline and contributed a share of our development expense.

The Novartis Agreement provided that Novartis would bear the majority of all direct development costs incurred in connection with omadacycline and would assume all responsibility for the manufacturing of omadacycline. The agreement provided Novartis with a global, exclusive patent license for the development, manufacturing and marketing of omadacycline.

Novartis had the right to terminate the agreement without cause upon providing 60 days’ advance written notice. Novartis provided us with a notice of intent to terminate the agreement on June 29, 2011, and the termination became effective 60 days later. While Novartis terminated the agreement without cause, Novartis indicated that it elected to terminate the agreement due to the then-existing delays and uncertainties experienced in connection with the regulatory pathway for approval of omadacycline in two core indications, ABSSSI and CABP.
In January 2012, we and Novartis entered into a letter agreement, or the Novartis Letter Agreement, in which we reconciled shared development costs and expenses and granted Novartis a right of first negotiation with respect to commercialization rights of omadacycline following approval of omadacycline from the FDA, the European Medicines Agency, or EMA, or any regulatory agency, but only to the extent that we have not previously granted such commercialization rights for omadacycline to another third party as of any such approval.

Under the Novartis Agreement, we agreed to pay Novartis $2.9 million as reconciliation of development costs and expenses. In June 2014, we amended the Novartis Letter Agreement and Novartis agreed to convert the full amount of development cost share plus any accrued interest into a 0.25% royalty, to be paid from net sales received by us following the launch of omadacycline and continuing until the later of expiration of the last active valid patent claim covering such product in the country of sale and 10 years from the date of first commercial sale in such country. There are no other payment obligations to Novartis under the Novartis Agreement or the Novartis Letter Agreement.

Global Animal Health Provider

In May 2014, we and a leading global animal health provider terminated an existing collaborative research, license and commercialization agreement. We have no future obligations under this agreement, and the leading global animal health company retains no rights to our technology. As a result of this termination, in 2014, we recognized the remaining $0.3 million of deferred revenue related to the upfront and milestone payments received in 2007 and 2008.

Grant Funding

As we have received funding for our SMA program from the National Institutes of Health, inventions conceived or first actually reduced to practice during the performance of the research project are subject to the rights and limitations of certain federal statutes and various implementing regulations known generally and collectively as the Bayh-Dole Requirements. As a funding recipient, we have been subject to certain invention reporting requirements and certain limitations are placed on our assignment of the invention rights. In addition, the federal government retains a non-exclusive, irrevocable, paid-up license to practice the invention and, in exceptional cases, the federal government may seek to take title to the invention.

Government Regulation

Government authorities in the United States, at the federal, state and local level, and other countries extensively regulate, among other things, the research, development, testing, manufacture, labeling, packaging, promotion, storage, advertising, distribution, marketing and export and import of products such as those we are developing. Our drugs must be approved by the FDA through the NDA process before they may be legally marketed in the United States.

U.S. Government Regulation

NDA Approval Processes

In the United States, the FDA regulates drugs under the Federal Food, Drug and Cosmetic Act, or the FDCA, and implementing regulations. The process of obtaining regulatory approvals and the subsequent compliance with applicable federal, state, local and foreign statutes and regulation require the expenditure of substantial time and financial resources. Failure to comply with the applicable requirements of the United States at any time during the product development process, approval process or after approval may subject us to administrative or judicial sanctions, any of which could have a material adverse effect on us. These sanctions could include:

- refusal to approve pending applications;
The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests, animal studies and formulation studies conducted according to Good Laboratory Practices or other applicable regulations;
- submission to the FDA of an Investigational New Drug application, or IND, which must become effective before human clinical trials may begin;
- performance of adequate and well-controlled human clinical trials to establish the safety and efficacy of the proposed drug for its intended use, conducted in accordance with Good Clinical Practices, which are ethical and scientific quality standards and FDA requirements for conducting, recording and reporting clinical trials to assure that the rights, safety and well-being of trial participants are protected;
- submission to the FDA of an NDA;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with cGMP requirements to assure that the facilities, methods and controls are adequate to preserve the drug’s safety, identity, strength, quality and purity; and
- FDA review and approval of the NDA.

Once a pharmaceutical candidate is identified for development, it enters the preclinical testing stage. Preclinical tests include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information and analytical data, to the FDA as part of the IND. Some preclinical or nonclinical testing may continue even after the IND is submitted. In addition to including the results of the preclinical studies, the IND will also include a protocol detailing, among other things, the objectives of the clinical trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated if the first phase lends itself to an efficacy determination. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, places the IND on clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before clinical trials can begin. A clinical hold may occur at any time during the life of an IND and may affect one or more specific studies or all studies conducted under the IND.

All clinical trials must be conducted under the supervision of one or more qualified investigators in accordance with current Good Clinical Practices. They must be conducted under protocols detailing the objectives of the trial, dosing procedures, subject selection and exclusion criteria and the safety and effectiveness criteria to be evaluated. Each protocol and any amendments must be submitted to the FDA as part of the IND, and progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently in other situations, including the occurrence of serious adverse events. An institutional review board, or an IRB at each institution participating in the clinical trial must review and approve the protocol and any amendments before a clinical trial commences or continues at that institution, approve the information regarding the clinical trial and the consent form that must be provided to each trial subject or his or her legal representative, monitor the study until completed and otherwise comply with IRB regulations.
Human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- **Phase 1.** The drug is initially introduced into healthy human subjects and tested for safety, dosage tolerance, absorption, metabolism, distribution and elimination. In the case of some products for severe or life-threatening diseases, such as cancer, especially when the product may be inherently too toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients.

- **Phase 2.** Clinical trials are initiated in a limited patient population intended to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage.

- **Phase 3.** Clinical trials are undertaken to further evaluate dosage, clinical efficacy and safety in an expanded patient population at geographically dispersed clinical study sites. These studies are intended to establish the overall risk-benefit ratio of the product and provide an adequate basis for regulatory approval and product labeling.

Phase 1, Phase 2 and Phase 3 testing may not be completed successfully within any specified period, if at all. The FDA or the sponsor may suspend a clinical trial at any time for a variety of reasons, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB’s requirements or if the drug has been associated with unexpected serious harm to patients.

During the development of a new drug, sponsors are given opportunities to meet with the FDA at certain points. These points may be prior to submission of an IND, at the end of Phase 2 and before an NDA is submitted. Meetings at other times may be requested. These meetings can provide an opportunity for the sponsor to share information about the data gathered to date, for the FDA to provide advice and for the sponsor and the FDA to reach agreement on the next phase of development. Sponsors typically use the End-of-Phase 2 meeting to discuss their Phase 2 clinical results and present their plans for the pivotal Phase 3 clinical trial that they believe will support approval of the new drug. If this type of discussion occurred, a sponsor may be able to request an SPA agreement, the purpose of which is to reach agreement with the FDA on the design of the Phase 3 clinical trial protocol and analysis that will form the primary basis of an efficacy claim.

According to FDA guidance for industry on the SPA agreement process, a sponsor that meets the prerequisites may make a specific request for a special protocol assessment and provide information regarding the design and size of the proposed clinical trial. The FDA has a goal of evaluating the protocol within 45 days of the request to assess whether the proposed trial is adequate and that evaluation may result in discussions and a request for additional information. An SPA agreement request must be made before the proposed clinical trial begins, and all open issues must be resolved before the clinical trial begins. If an agreement is reached, it will be documented in writing and made part of the record. The agreement will be binding on the FDA and may not be changed by the sponsor or the FDA after the trial begins, except with the written agreement of the sponsor and the FDA or if the FDA determines that a substantial scientific issue essential to determining the safety or efficacy of the drug was identified after the testing began. Also, if the sponsor makes any unilateral changes to the approved protocol, the agreement will be invalidated. An SPA agreement is intended to provide greater assurance that if the agreed upon clinical trial protocols are followed, the clinical trial endpoints are achieved, and there is a favorable risk-benefit profile, the data may serve as the primary basis for an efficacy claim in support of NDA approval. However, SPA agreements are not a guarantee of an approval of a product candidate or any permissible claims about the product candidate, and final determinations of approvability will not be made until the FDA completes its review of the entire NDA.

The Pediatric Research Equity Act, or PREA, which requires a sponsor to conduct pediatric studies for most drugs and biologicals, for a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration. Under the PREA, original NDAs, biologics license applications, or BLAs and supplements thereto must contain a pediatric assessment unless the sponsor has received a deferral or waiver. The required assessment must assess the safety and effectiveness of the product for the claimed indications in all...
relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The sponsor or the FDA may request a deferral of pediatric studies for some or all of the pediatric subpopulations. A deferral may be granted for several reasons, including a finding that the drug or biologic is ready for approval for use in adults before pediatric studies are complete or that additional safety or effectiveness data needs to be collected before the pediatric studies begin. The FDA must send a non-compliance letter to any sponsor that fails to submit the required assessment, keep a deferral current or submit a request for approval of a pediatric formulation. In our End-of-Phase 2 meeting with the FDA regarding omadacycline, we agreed to initiate an initial pediatric study prior to submission of the NDA, because serious and resistant ABSSSI and CABP also occur in children. Omadacycline could be a useful new antibiotic for this patient population. We have an agreement with the FDA to not study children under the age of eight, because tetracyclines are known to cause deposits in tooth enamel leading to tooth staining in this population.

Concurrent with clinical trials, companies usually complete additional animal safety studies and must also develop additional information about the chemistry and physical characteristics of the drug and finalize a process for manufacturing the product in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the drug candidate and the manufacturer must develop methods for testing the quality, purity and potency of the final drugs. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the drug candidate does not undergo unacceptable deterioration over its shelf-life.

The results of product development, preclinical studies and clinical trials, along with descriptions of the manufacturing process, analytical tests conducted on the chemistry of the drug, proposed labeling and other relevant information are submitted to the FDA as part of an NDA requesting approval to market the product. The submission of an NDA is subject to the payment of user fees, but a waiver of such fees may be obtained under specified circumstances. The FDA reviews all NDAs submitted to ensure that they are sufficiently complete for substantive review before it accepts them for filing. It may request additional information rather than accept an NDA for filing. In this event, the NDA must be resubmitted with the additional information. The resubmitted application also is subject to review before the FDA accepts it for filing.

Once the submission is accepted for filing, the FDA begins an in-depth review. NDAs receive either standard or priority review. A drug representing a significant improvement in treatment, prevention or diagnosis of disease may receive priority review. The FDA may refuse to approve an NDA if the applicable regulatory criteria are not satisfied or may require additional clinical or other data. Even if such data are submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval and issue a complete response letter. The FDA reviews an NDA to determine, among other things, whether a product is safe and effective for its intended use and whether its manufacturing complies with cGMP requirements to assure and preserve the product’s safety, identity, strength, quality and purity. The FDA may refer the NDA to an advisory committee for review and recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendation of an advisory committee, but it generally follows such recommendation. Before approving an NDA, the FDA will inspect the facility or facilities where the product is manufactured and tested.

The FDA may require, as a condition of approval, Risk Evaluation and Mitigation Strategies (REMS), restricted distribution and use, enhanced labeling, special packaging or labeling, expedited reporting of certain adverse events, pre-approval of promotional materials, restrictions on direct-to-consumer advertising or commitments to conduct additional research post-approval. The FDA will issue a complete response letter if the agency decides not to approve the NDA in its present form. The complete response letter usually describes all of the specific deficiencies in the NDA identified by the FDA. If a complete response letter is issued, the applicant may either resubmit the NDA, addressing all of the deficiencies identified in the letter, or withdraw the application.
Expedited Review and Approval

The FDA has various programs, including Fast Track and priority review, which are intended to expedite or simplify the process for reviewing drugs. Even if a drug qualifies for one or more of these programs, the FDA may later decide that the drug no longer meets the conditions for qualification or that the time period for FDA review or approval will not be shortened. Generally, drugs that may be eligible for these programs are those for serious or life-threatening conditions, those with the potential to address unmet medical needs and those that offer meaningful benefits over existing treatments. For example, Fast Track is a process designed to facilitate the development and expedite the review of drugs to treat serious diseases and fill an unmet medical need. Priority review is designed to give drugs that offer major advances in treatment, or provide a treatment where no adequate therapy exists, an expedited review within eight months as compared to a standard review time of 12 months. Although Fast Track and priority review do not affect the standards for approval, the FDA will attempt to facilitate early and frequent meetings with a sponsor of a Fast Track-designated drug and expedite review of the application for a drug designated for priority review.

The GAIN Act is intended to provide incentives for the development of new QIDPs. A new drug that is designated as a QIDP after a request by the sponsor that is made before an NDA is submitted will be eligible, if approved, for an additional five years of exclusivity beyond any period of exclusivity to which it would have previously been eligible. In addition, a QIDP will receive priority review and Fast Track designation. QIDPs are defined as antibacterial or antifungal drugs intended to treat serious or life-threatening infections that are resistant to treatment, or that treat qualifying resistant pathogens identified by the FDA. Examples of pathogens that may be designated as a qualifying pathogen include MRSA, vancomycin-resistant Enterococcus and multi-drug resistant gram-negative bacteria. Omadacycline (both IV and oral formulations) has been designated as a QIDP for cUTI, ABSSSI and CABP.

Beyond GAIN Act

In addition to the GAIN Act, the United States Congress has initiated a significant number of legislative proposals to provide further incentives in anti-infective development. Such legislation includes the following:

- The Antibiotic Development to Advance Patient Treatment Act of 2013, or ADAPT Act, was introduced in July 2014 to provide an accelerated antibiotic development pathway;
- The Developing an Innovative Strategy for Antimicrobial Resistant Microorganisms Act of 2014, or DISARM Act, was introduced in January 2015 to provide a new antibiotics reimbursement framework; and
- The 21st Century Cures Act was introduced in January 2015 to provide a voucher option for QIDP designated antibiotics.

Patent Term Restoration and Marketing Exclusivity

Depending upon the timing, duration and specifics of FDA approval of the use of our drugs, some of our U.S. patents may be eligible for limited patent term extension under the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product’s approval date. The patent term restoration period is generally one-half the time between the effective date of an IND, and the submission date of an NDA, plus the time between the submission date of an NDA and the approval of that application. Only one patent applicable to an approved drug is eligible for the extension, and the extension must be applied for prior to expiration of the patent and within applicable deadlines. The U.S. Patent and Trademark Office (the “USPTO”), in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, we intend to apply for restoration of patent term for omadacycline beyond
its current composition of matter expiration date, depending on the expected length of clinical trials and other factors involved in the submission of the omadacycline NDA.

Market exclusivity provisions under the FDCA also can delay the submission or the approval of certain applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to gain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not accept for review an ANDA, or a 505(b)(2) NDA submitted by another company for another version of such drug where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement. The FDCA also provides three years of marketing exclusivity for an NDA, 505(b)(2) NDA or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example, for new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the conditions associated with the new clinical investigations and does not prohibit the FDA from approving ANDAs for drugs containing the original active agent. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA. However, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the preclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

Pediatric Exclusivity

The Best Pharmaceuticals for Children Act provides for an additional six months of marketing exclusivity if a sponsor conducts clinical trials in children in response to a written request from the FDA, or a Written Request. If the Written Request does not include studies in neonates, the FDA is required to include its rationale for not requesting those studies. The FDA may request studies on approved or unapproved indications in separate Written Requests. The issuance of a Written Request does not require the sponsor to undertake the described studies. To date, we have not received any Written Requests.

Post-approval Requirements

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product may result in restrictions on the product or even complete withdrawal of the product from the market. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further FDA review and approval. In addition, the FDA may require testing and surveillance programs to monitor the effect of approved products that have been commercialized, and the FDA has the power to prevent or limit further marketing of a product based on the results of these post-marketing programs. The FDA and other authorities also strictly regulate the promotional claims that may be made about prescription products, and our product labeling, advertising, and promotion will be subject to continuing regulatory review. If approved, physicians nevertheless may prescribe our products to their patients in a manner that is inconsistent with the approved label or that is off-label. Positive clinical trial results for any approved products that are also subject to further review for additional indications increase the risk that the approved product may be used off-label. If we are found to have improperly promoted off-label uses, we may be subject to significant sanctions, civil and criminal fines, and injunctions prohibiting us from engaging in specified promotional conduct.

Moreover, any drug products manufactured or distributed pursuant to FDA approvals are subject to continuing regulation by the FDA, including, among other things:

- record-keeping requirements;
- reporting of adverse experiences with the drug;
Drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and some state agencies for compliance with cGMP requirements and other laws.

From time to time, legislation is drafted, introduced and passed in Congress that could significantly change the statutory provisions governing the approval, manufacturing and marketing of products regulated by the FDA. In addition, FDA regulations and guidance are often revised or reinterpreted by the agency in ways that may significantly affect our business and our products. It is impossible to predict whether legislative changes will be enacted, or FDA regulations, guidance or interpretations changed or what the impact of such changes, if any, may be.

Other Healthcare Laws

We may be subject to additional healthcare regulation and enforcement by the federal government and by authorities in the states and foreign jurisdictions in which we conduct our business. Such laws include, without limitation, state and federal anti-kickback, false claims, false statements, civil monetary penalties, privacy and security and physician payment transparency laws.

The number and complexity of both federal and state laws continues to increase, and additional governmental resources are being added to enforce these laws and to prosecute companies and individuals who are believed to be violating them. While it is too early to predict what effect these changes will have on our business, we anticipate that government scrutiny of pharmaceutical sales and marketing practices will continue for the foreseeable future and subject us to the risk of government investigations and enforcement actions. If our operations are found to be in violation of any of such laws or any other governmental regulations that apply to us, we may be subject to penalties, including, without limitation, administrative, civil and criminal penalties, damages, fines, the curtailment or restructuring of our operations, exclusion from participation in federal and state healthcare programs and imprisonment, any of which could adversely affect our ability to operate our business and financial results.

Foreign Regulation

In addition to regulations in the United States, we will be subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of our products. Whether or not we obtain FDA approval for a product, we must obtain approval by the comparable regulatory authorities of foreign countries or economic areas, such as the European Union, before we may commence clinical trials or market products in those countries or areas. The approval process and requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from place to place, and the time may be longer or shorter than that required for FDA approval.

Under European Union regulatory systems, a company may submit marketing authorization applications either under a centralized or decentralized procedure. The centralized procedure is compulsory for medicinal products produced by biotechnology or those medicinal products containing new active substances for specific indications such as the treatment of AIDS, cancer, neurodegenerative disorders, diabetes, viral diseases and
designated orphan medicines, and is optional for other medicines that are highly innovative. Under the centralized procedure, a marketing application is submitted to the EMA, where it will be evaluated by the Committee for Medicinal Products for Human Use, and a favorable opinion typically results in the grant by the European Commission of a single marketing authorization that is valid for all European Union member states within 67 days of receipt of the opinion. The initial marketing authorization is valid for five years, but once renewed is usually valid for an unlimited period. The decentralized procedure provides for approval by one or more “concerned” member states based on an assessment of an application performed by one member state, known as the “reference” member state. Under the decentralized procedure, an applicant submits an application, or dossier, and related materials to the reference member state and concerned member states. The reference member state prepares a draft assessment and drafts of the related materials within 120 days after receipt of a valid application. Within 90 days of receiving the reference member state’s assessment report, each concerned member state must decide whether to approve the assessment report and related materials. If a member state does not recognize the marketing authorization, the disputed points are eventually referred to the European Commission, whose decision is binding on all member states.

Coverage and Reimbursement

Sales of our products will depend, in part, on the extent to which our products will be covered by third-party payors, such as government health programs, commercial insurance and managed healthcare organizations. The process for determining whether a third-party payor will provide coverage for a drug product typically is separate from the process for setting the price of a drug product or for establishing the reimbursement rate that the payor will pay for the drug product once coverage is approved. Third-party payors may limit coverage to specific drug products on an approved list, also known as a formulary, which might not include all of the FDA-approved drugs for a particular indication. A decision by a third-party payor not to cover Intermezzo or our product candidates could reduce physician utilization of our products once approved. Moreover, a third-party payor’s decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development. Additionally, coverage and reimbursement for drug products can differ significantly from payor to payor. One third-party payor’s decision to cover a particular drug product or service does not ensure that other payors will also provide coverage for the medical product or service, or will provide coverage at an adequate reimbursement rate. As a result, the coverage determination process will require us to provide scientific and clinical support for the use of our products to each payor separately and will be a time-consuming process.

These third-party payors are increasingly reducing reimbursements for medical products and services. Additionally, the containment of healthcare costs has become a priority of federal and state governments, and the prices of drugs have been a focus in this effort. The U.S. government, state legislatures and foreign governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit our net revenue and results. Decreases in third-party reimbursement for our product candidates or a decision by a third-party payor to not cover our product candidates could reduce physician usage of the product candidate and have a material adverse effect on our sales, results of operations and financial condition.

In addition, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. There can be no assurance that any country that has price controls or reimbursement limitations for

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pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products. Historically, products launched in the European Union do not follow price structures of the United States and generally tend to be significantly lower.

Health Care Reform

In the United States, there have been and continue to be a number of significant legislative initiatives to contain healthcare costs. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or MMA, established the Medicare Part D program, or Part D, to provide a voluntary prescription drug benefit to Medicare beneficiaries. Under Part D, Medicare beneficiaries may enroll in prescription drug plans offered by private entities that will provide coverage of certain outpatient prescription drugs. Unlike the Medicare Part A and Part B programs, Part D coverage is not standardized. Part D prescription drug plan sponsors are not required to pay for all covered Part D drugs, and each drug plan can develop its own drug formulary that identifies which drugs it will cover and at what tier or level. However, Part D prescription drug formularies must include drugs within each therapeutic category and class of covered Part D drugs, though not necessarily all the drugs in each category or class. Any formulary used by a Part D prescription drug plan must be developed and reviewed by a pharmacy and therapeutic committee. Government payment for some of the costs of prescription drugs may increase demand for products for which we receive marketing approval. However, any negotiated prices for Intermezzo or our products covered by a Part D prescription drug plan will likely be lower than the prices we might otherwise obtain. Alternatively, Medicare beneficiaries may obtain prescription drug coverage under a Medicare Advantage plan, administered by a commercial health plan under a contract with the Centers for Medicare & Medicaid Services, or CMS. Moreover, while the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own payment rates. Any reduction in payment that results from the MMA may result in a similar reduction in payments from non-governmental payors.

The American Recovery and Reinvestment Act of 2009 provided funding for the federal government to compare the effectiveness of different treatments for the same illness. A plan for the research is developed by the U.S. Department of Health & Human Services, the Agency for Healthcare Research and Quality and the National Institutes for Health, and periodic reports on the status of the research and related expenditures are made to Congress. Although the results of the comparative effectiveness studies are not intended to mandate coverage policies for public or private payors, it is not clear what effect, if any, the research will have on the sales of Intermezzo or our product candidates if any such products or the conditions that they are intended to treat are the subject of a study. It is also possible that comparative effectiveness research demonstrating benefits in a competitor’s product could adversely affect the sales of Intermezzo or our product candidates. If third-party payors do not consider our products to be cost-effective compared to other available therapies, they may not cover our products after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products on a profitable basis.

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the ACA, is expected to have a significant impact on the healthcare industry. ACA requires certain manufacturers to disclose their financial relationships with physicians (and their family members) and teaching hospitals and expands coverage for the uninsured while at the same time containing overall healthcare costs. With regard to pharmaceutical products, among other things, ACA expanded and increased industry rebates for drugs covered under Medicaid programs and made changes to the coverage requirements under Part D. We cannot predict the impact of ACA on pharmaceutical companies as many of the ACA reforms require the promulgation of detailed regulations implementing the statutory provisions, some of which has not yet occurred.

Other legislative changes have been proposed and adopted in the United States since ACA was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction
of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation’s automatic reduction to several
government programs. This included aggregate reductions of Medicare payments to providers of 2% per fiscal year, which went into effect in April 2013 and,
due to legislative amendments, will remain in effect through 2024 unless additional Congressional action is taken. In addition, in January 2013, President
Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, further reduced Medicare payments to several categories of
healthcare providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

Employees

As of February 28, 2015, we had 13 full-time employees, nine of whom were primarily engaged in research and development activities. A total of five
employees have an M.D. or Ph.D. degree. None of our employees are represented by a labor union, and we consider our employee relations to be good.

Financial and Segment Information

We operate our business as a single segment, as defined by generally accepted accounting principles. Our financial information is included in the
consolidated financial statements and the related notes.

Available Information

We are a reporting company under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and file reports, proxy statements and other
information with the Securities and Exchange Commission, or the SEC. The public may read and copy any of our filings at the SEC’s Public Reference Room
at 100 F Street N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-
0330. Because we make filings with the SEC electronically, you may access this information at the SEC’s Internet site: www.sec.gov. This site contains
reports, proxies and information statements and other information regarding issuers that file electronically with the SEC.

Our internet web site address is www.paratekpharm.com. We make available, free of charge at the “Investors” portion of our web site, annual reports on
Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or
15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Reports of beneficial
ownership filed pursuant to Section 16(a) of the Exchange Act are also available on our web site. Information in, or that can be accessed through, this web
site is not part of this Annual Report on Form 10-K.
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Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below and all information contained in this report before you decide to purchase our common stock. If any of the possible adverse events described below actually occurs, we may be unable to conduct our business as currently planned and our financial condition and operating results could be harmed. In addition, the trading price of our common stock could decline due to the occurrence of any of the events described below, and you may lose all or part of your investment.

We have incurred significant losses since inception and anticipate that we will incur losses for the foreseeable future. We have no products approved for commercial sale, and to date we have not generated any revenue or profit from product sales. We may never achieve or sustain profitability.

In connection with our current primary business, we have not yet submitted any product candidates for approval by regulatory authorities, and we do not currently have rights to any products that have been approved for marketing in any territory. Our net loss for 2014 and 2013 was $17.8 million and $4.7 million, respectively. As of December 31, 2014, our accumulated deficit was $197.9 million. We expect to continue to incur losses for the foreseeable future, and we expect these losses to increase as we continue our clinical development of, and seek regulatory approvals for, our product candidates, prepare to commercialize any approved products and add infrastructure and personnel to support our product development efforts and operations. The net losses and negative cash flows incurred to date, together with expected future losses, have had, and likely will continue to have, an adverse effect on our stockholders’ equity (deficit) and working capital. The amount of future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenue.

Because of the numerous risks and uncertainties associated with pharmaceutical product development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to generate any revenues or achieve profitability. For example, our expenses could increase if we are required by the FDA, or other regulatory agencies outside the United States, to perform studies in addition to those that we currently expect to perform, or if there are any delays in completing our currently planned clinical trials or in the development of any of our product candidates.

To become and remain profitable, we must succeed in developing and commercializing products with significant market potential. This will require us to be successful in a range of challenging activities for which we are only in the pre-registration, pre-clinical and clinical stages, including developing product candidates, obtaining regulatory approval for them and manufacturing, marketing and commercializing approved products. We may never succeed in these activities and may never generate revenue from product sales that is significant enough to achieve profitability. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods. Our failure to become or remain profitable would depress the market value of our common stock and could impair our ability to raise capital, expand our business, develop other product candidates or continue our operations.

We will require substantial additional funding, which may not be available to us on acceptable terms, or at all, and, if not available, may require us to delay, scale back or cease our product development programs or operations.

We are advancing our lead product candidate, omadacycline, through clinical development, and we may, in the future, advance other product candidates into clinical development. Developing pharmaceutical products, including conducting preclinical studies and clinical trials, is expensive. We currently plan to seek regulatory approval of omadacycline in two indications, and in order to obtain such regulatory approval, we will be required to conduct clinical trials for each indication. We will require additional funding to complete the development and initiate commercialization of omadacycline and to continue to advance the development of our other product candidates. We have incurred significant losses since inception and anticipate that we will incur losses for the foreseeable future. We have no products approved for commercial sale, and to date we have not generated any revenue or profit from product sales. We may never achieve or sustain profitability.
candidates, and such funding may not be available on acceptable terms or at all. Although it is difficult to predict our liquidity requirements, based upon our current operating plan, we anticipate that our existing cash and milestone payments from our license agreement with Actavis will enable us to fund our operating expenses and capital expenditure requirements through the unblinding of the top line results of the Phase 3 ABSSSI clinical trial, which we currently expect to occur in the third quarter of 2016. Because successful development of our product candidates is uncertain, we are unable to estimate the actual funds we will require to complete research and development and to commercialize our product candidates.

Our future funding requirements will depend on many factors, including but not limited to:

- the progress of clinical development of omadacycline;
- the number and characteristics of other product candidates that we may pursue;
- the scope, progress, timing, cost and results of research, preclinical development and clinical trials;
- the costs, timing and outcome of seeking and obtaining FDA and non-U.S. regulatory approvals;
- the costs associated with manufacturing and establishing sales, marketing and distribution capabilities;
- our ability to maintain, expand and defend the scope of our intellectual property portfolio, including the amount and timing of any payments we may be required to make in connection with the licensing, filing, defense and enforcement of any patents or other intellectual property rights;
- our need to hire additional management, scientific, operations and medical personnel;
- the effect of competing products that may limit market penetration of our product candidates;
- our need to implement additional internal systems and infrastructure, including financial and reporting systems; and
- the economic and other terms, timing and success of our existing licensing arrangements and any collaboration, licensing, or other arrangements into which we may enter in the future, including the timing of receipt of any milestone or royalty payments under these agreements.

As of December 31, 2014, we had cash and cash equivalents totaling $95.9 million, working capital of $97.6 million and an accumulated deficit of $197.9 million. These figures include the $93.0 million in proceeds we received from our October 2014 financing. Our net loss for 2014 and 2013 was $17.8 million and $4.7 million, respectively.

Until we generate a sufficient amount of product revenue to finance our cash requirements, which we may never do, we expect to finance future cash needs primarily through a combination of public or private equity offerings, debt financings, strategic collaborations and grant funding. There can be no assurance that we would be successful in securing additional funds on acceptable terms. If additional funds are not available, we may be forced to cease operations, significantly reduce operating expenses or delay, curtail or eliminate one or more of our development programs or our business operations.

**Raising additional capital may cause dilution to our stockholders, restrict our operations or require us to relinquish rights.**

To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of these new securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing, if available at all, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds
through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, product candidates or future revenue streams or grant licenses on terms that are not favorable to us. We cannot assure you that we will be able to obtain additional funding if and when necessary. If we are unable to obtain adequate financing on a timely basis, we could be required to grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Risks Related to Regulatory Review and Approval of Our Product Candidates

If we fail to obtain FDA approval of and to commercialize our most advanced product candidate, omadacycline, our business would be materially harmed.

We have invested a significant portion of our time, financial resources and collaboration efforts in the development of our most advanced product candidate, omadacycline. Accordingly, our ability to generate revenue and our future success depend substantially on our ability to successfully obtain regulatory approval for and commercialize omadacycline. We have completed one Phase 2 clinical trial and one Phase 3 non-registration clinical trial of the IV and oral formulations of omadacycline in cSSSI. As is typical for Phase 2 clinical trial designs, and the limited number of patients enrolled in the Phase 3 non-registration clinical trial, neither of these studies were designed to have, nor have had, a sufficient number of patients to establish statistical non-inferiority compared to linezolid. In order to successfully obtain regulatory approval for omadacycline, we are currently planning to conduct two Phase 3 clinical trials, one in cABSSSI and one in moderate to severe CABP. Prior to the FDA’s issuance of guidance in March 2010 for clinical trials of antibiotics for the treatment of serious bacterial skin infections, the initial disease indication we were targeting was cSSSI, which was revised as a result of the FDA’s guidance to be cABSSSI. We have written agreements with the FDA in the form of two separate SPA agreements, one for cABSSSI and one for CABP, covering our planned Phase 3 clinical trial designs. An SPA agreement documents the FDA’s general agreement that the design and planned analysis of the Phase 3 clinical trial reviewed under the SPA process, if the clinical trial is successfully completed, will support an NDA submission. An SPA agreement is intended to provide assurance that if the agreed upon clinical trial protocols are followed, the clinical trial endpoints are achieved and there is a favorable benefit-risk profile, the data may serve as the primary basis for an efficacy claim in support of an NDA. However, SPA agreements are not a guarantee of approval of a product candidate or any permissible claims about the product candidate, and final determinations of approvability will not be made until the FDA completes its review of the entire NDA. Therefore, even if all the conditions of our SPA agreements appear to be met, we cannot predict whether the FDA will interpret the data and results in the same way that we do, nor whether it will ultimately approve omadacycline for the treatment of cABSSSI and/or CABP. In addition, the FDA is afforded the ability to modify and ignore a SPA agreement, in light of other factors not necessarily related to omadacycline.

Except for our collaboration with Actavis for our product candidate, sarecycline, we are not currently developing any other product candidates.

If we are unable to obtain FDA approval for and successfully commercialize omadacycline for cABSSSI, CABP or any other indication, we may never realize revenue from this product candidate. As a result, our business, financial condition and results of operations would be materially harmed.

If clinical trials for our product candidate, omadacycline, are prolonged, delayed or stopped, we may be unable to obtain regulatory approval and commercialize omadacycline on a timely basis, which would require us to incur additional costs, raise additional capital and delay our receipt of any product revenue.

We plan to commence a single Phase 3 clinical trial of omadacycline for the treatment of cABSSSI and a single Phase 3 clinical trial of omadacycline for the treatment of CABP, which we expect to commence in mid-2015 and late-2015, respectively. Based on our current expectations, we anticipate completing these two registration trials in 2016 and 2017, respectively. Should both clinical trials successfully meet their endpoints, we plan on submitting an NDA for the treatment of cABSSSI and CABP in 2018. However, we do not know whether
these planned clinical trials will be initiated or completed on schedule, if at all. The commencement of these planned clinical trials could be substantially delayed or prevented by several factors, including:

- changes in the regulatory guidance for development in ABSSSI and CABP by the FDA or other regulatory agencies regarding the scope or design of our clinical trials;
- the limited number of, and competition for, suitable sites to conduct our clinical trials, many of which may already be engaged in other clinical trial programs, including some that may be for the same indication as our product candidates;
- any delay or failure to obtain regulatory approval or agreement to commence a clinical trial in any of the countries where enrollment is planned;
- clinical holds on, or other regulatory objections to, a new or ongoing clinical trial;
- delay or failure to obtain sufficient supplies of the product candidate for our clinical trials;
- delay or failure to obtain sufficient supplies of the comparator antibiotic for our clinical trials;
- delay or failure to reach agreement on acceptable clinical trial agreement terms or clinical trial protocols with prospective sites or clinical research organizations, or CROs, or local regulatory authorities, the terms of which can be subject to extensive negotiation and may vary significantly among different sites or CROs; and
- delay or failure to obtain IRB/ethics committee approval to conduct a clinical trial at a prospective site or within a specific region or country.

The completion of our clinical trials could also be substantially delayed or prevented by several factors, including:

- slower than expected rates of patient recruitment and enrollment;
- failure of patients to complete the clinical trial;
- unforeseen safety issues, including severe or unexpected drug-related adverse effects experienced by patients;
- lack of omadacycline efficacy evidenced during clinical trials;
- termination of our clinical trials by one or more clinical trial sites;
- inability or unwillingness of patients or clinical investigators to follow our clinical trial protocols;
- inability to monitor patients adequately during or after treatment by us and/or our CROs; and
- the need to repeat or terminate clinical trials as a result of inconclusive or negative results or unforeseen complications during clinical trial testing.

In particular, our ability to enroll patients in our clinical trials in sufficient numbers and on a timely basis will be subject to a number of factors, including the size of the patient population needed, the nature of the protocol, the proximity of patients to clinical sites, the availability of effective treatments for the relevant indication and the eligibility criteria for the clinical trial. For example, in the planned Phase 3 clinical trials of omadacycline in ABSSSI and CABP patients who have previously taken potentially effective antibiotics for the treatment of an infection within 72 hours of receiving the first dose of study medication will be excluded from the ABSSSI clinical trial and limited to no more than 25% of the total enrollment for the CABP clinical trial. Depending upon a region’s or a clinical site’s standard of care for the administration of antibiotics, this could affect our ability to enroll patients in these clinical trials in a timely fashion.

Changes in regulatory requirements and guidance may also occur, and we may need to amend clinical trial protocols to reflect these changes with appropriate regulatory authorities. Amendments may require us to resubmit clinical trial protocols to regulatory agencies/IRBs/ethics committees for re-examination, which may
impact the costs, timing or successful completion of a clinical trial. For example, we stopped our previous Phase 3 clinical trial of omadacycline after the FDA notified us that its guidance relating to the conduct of studies in cSSSI would be modified to change the eligibility criteria, revise the disease indication from cSSSI to ABSSSI and change the primary efficacy endpoint for clinical trials in this indication from a TOC assessment to an ECR assessment. As a result of these changes, we chose to terminate enrollment in the previous Phase 3 clinical trial and, following discussion with the FDA, design two new Phase 3 clinical trials, one for ABSSSI and one for CABP, taking into account the revised FDA regulatory guidance. Our clinical trials may be suspended or terminated at any time by the FDA, other regulatory authorities, the IRB overseeing the clinical trial at issue, any of our clinical trial sites with respect to that site or us due to a number of factors, including:

- failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols;
- unforeseen safety issues or any determination that a clinical trial presents unacceptable health risks;
- lack of adequate funding to continue the clinical trial due to unforeseen costs or other business decisions; and
- upon a breach or pursuant to the terms of any agreement with, or for any other reason by, current or future collaborators that have responsibility for the clinical development of any of our product candidates.

Any failure or significant delay in completing clinical trials for our product candidates would adversely affect our ability to obtain regulatory approval and our commercial prospects and ability to generate product revenue will be diminished.

The results of previous clinical trials may not be predictive of future results, and the results of our current and planned clinical trials may not satisfy the requirements of the FDA or non-U.S. regulatory authorities.

We currently have no products approved for sale, and we cannot guarantee that we will ever have marketable products. Clinical failure can occur at any stage of clinical development. Clinical trials may produce negative or inconclusive results, and we or any future partners may decide, or regulators may require us, to conduct additional clinical or preclinical testing which would delay submission of an NDA and regulatory approval. We will be required to demonstrate with substantial evidence through well-controlled clinical trials that our product candidates are safe and effective for use in a diverse population before we can seek regulatory approvals for their commercial sale. Success in early stage clinical trials does not mean that future larger registration clinical trials will be successful, because product candidates in later-stage clinical trials may fail to demonstrate sufficient safety and efficacy to the satisfaction of the FDA and non-U.S. regulatory authorities despite having progressed through early stage clinical trials. Product candidates that have shown promising results in early-stage (pre-Phase 3) clinical trials may still suffer significant setbacks in subsequent registration clinical trials.

In addition, the design of a clinical trial can determine whether its results will support approval of a product and flaws in the design of a clinical trial may not become apparent until the clinical trial is underway, well advanced or completed. Further, if omadacycline or our other product candidates are found to be unsafe or lack efficacy, we will not be able to obtain regulatory approval for them and our business would be harmed. A number of companies in the pharmaceutical industry, including those with greater resources and experience than us, have suffered significant setbacks in advanced clinical trials, even after obtaining promising results in earlier stage clinical trials.

Our randomized Phase 2 and Phase 3 non-registration clinical trials of omadacycline were completed prior to the FDA's change in its guidance regarding the endpoints for clinical trials in serious skin infections from a TOC endpoint to an ECR endpoint. Our results in our randomized Phase 2 and Phase 3 non-registration clinical trials of omadacycline in cSSSI, which evaluated the response of serious skin infections to omadacycline at the TOC, may not be predictive of the results to be obtained in our proposed Phase 3 clinical trials of omadacycline in ABSSSI or in other indications such as CABP, which will evaluate the response of serious skin infections and
moderate-to-severe CABP to omadacycline using the ECR endpoint. Because these earlier clinical trials did not enroll a sufficient number of patients to achieve statistical significance, the retrospective analyses of ECR endpoints for these clinical trials may not be indicative of the performance or success of omadacycline in larger registration studies in ABSSSI or in CABP. In some instances, there can be significant variability in safety and/or efficacy results between different clinical trials of the same product candidate due to numerous factors, including changes in clinical trial protocols, differences in size, type and geographic distribution of the patient populations, adherence to the dosing regimen and other clinical trial protocols and the rate of dropout among clinical trial participants. We do not know whether any Phase 2, Phase 3 or other clinical trials we or any of our collaborators may conduct, or have conducted in the past, will demonstrate consistent or adequate efficacy and safety to obtain regulatory approval to market our product candidates.

Further, our and our partners’ product candidates may not be approved even if they achieve their primary endpoints in Phase 3 clinical trials or registration trials. The FDA or other non-U.S. regulatory authorities may disagree with our clinical trial design and our interpretation of data from preclinical studies and clinical trials even when we have SPA agreements. In addition, any of these regulatory authorities may change requirements for the approval of a product candidate even after reviewing and providing comments or advice on a protocol for a pivotal Phase 3 clinical trial that has the potential to result in FDA or other agencies’ approval. In addition, any of these regulatory authorities may also approve a product candidate for fewer or more limited indications than we request or may grant approval contingent on the performance of costly post-marketing clinical trials. In addition, the FDA or other non-U.S. regulatory authorities may not approve the labeling claims that we believe would be supported by the clinical data, or be necessary or desirable for the successful commercialization of our product candidates.

The regulatory approval process is expensive, time consuming and uncertain and may prevent us or our partners from obtaining approvals for the commercialization of our product candidates.

The research, testing, manufacturing, labeling, approval, selling, marketing and distribution of drug products are subject to extensive regulation by the FDA and other U.S. and non-U.S. regulatory authorities. Regulations differ from country to country, which will require us to expend additional resources in each market for which a separate regulatory approval is required. We are not permitted to market our product candidates in the United States or in other countries until we receive approval of an NDA from the FDA or marketing approval from applicable regulatory authorities outside the United States. Our primary product candidates, omadacycline and sarecycline, are still in development and are subject to the risks of failure inherent in drug development. Neither we nor our partners have submitted an application for or received marketing approval for any of our product candidates. Obtaining approval of an NDA can be a lengthy, expensive and uncertain process. In addition, failure to comply with FDA and non-U.S. regulatory requirements may, either before or after product approval, if any, subject us to administrative or judicially imposed sanctions, including:

- restrictions on the products, manufacturers or manufacturing process;
- warning letters;
- civil and criminal penalties;
- injunctions;
- suspension or withdrawal of regulatory approvals;
- product seizures, detentions or import bans;
- voluntary or mandatory product recalls and publicity requirements;
- total or partial suspension of production;
- imposition of restrictions on operations, including costly new manufacturing requirements; and
- refusal to approve pending NDAs or supplements to approved NDAs.
The FDA and foreign regulatory authorities also have substantial discretion in the drug approval process. The number of preclinical studies and clinical trials that will be required for regulatory approval varies depending on the product candidate, the disease or condition that the product candidate is designed to address and the regulations applicable to any particular drug candidate. Regulatory agencies can delay, limit or deny approval of a product candidate for many reasons, including:

- a product candidate may not be deemed safe or effective;
- the results may not confirm the positive results from earlier preclinical studies or earlier stage clinical trials;
- regulatory agencies may not find the data from preclinical studies and clinical trials sufficient;
- regulatory agencies might not approve our third-party manufacturer’s processes or facilities; or
- regulatory agencies may change their approval policies or adopt new regulations.

Any delay in obtaining or failure to obtain required approvals could materially adversely affect our ability to generate revenue from omadacycline or any other particular product candidate, which likely would result in significant harm to our financial position. Furthermore, any regulatory approval to market a product may be subject to limitations on the indicated uses for which we may market the product. These limitations may limit the size of the market opportunity for the product.

Even if we or our partners obtain regulatory approvals for our product candidates, the terms of approvals and ongoing regulation of our products may limit how we manufacture and market our product candidates, which could materially impair our ability to generate revenue.

Once regulatory approval has been granted, an approved product and its manufacturer and marketer are subject to ongoing review and regulation. Any approved product may only be promoted for its approved uses. In addition, if the FDA and/or non-U.S. regulatory authorities approve any of our product candidates, among other things, the labeling, packaging, adverse event reporting, storage, advertising and promotion for the product will be subject to extensive regulatory requirements. In addition, approved products, manufacturers and manufacturers’ facilities are required to comply with extensive FDA requirements, including ensuring that quality control and manufacturing procedures conform to cGMP regulations, which include requirements relating to quality control and quality assurance as well as the corresponding maintenance of records and documentation and reporting requirements. As such, we and our contract manufacturers will be subject to ongoing review and periodic inspections to assess compliance with cGMPs. Accordingly, assuming regulatory approval for one or more of our product candidates, we and others with whom we work will continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production and quality control. Further, regulatory agencies must approve these manufacturing facilities before they can be used to manufacture our products. We and our partners will also be required to report adverse reactions and production problems, if any, to the FDA and to comply with requirements concerning, among other things, advertising and promotion for our products. Promotional communications with respect to prescription drugs are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product’s approved label. Accordingly, we will not be able to promote our products for indications or uses for which they are not approved. If a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, or disagrees with the promotion, marketing or labeling of a product, it may impose restrictions on that product, us or our partners, including requiring withdrawal of the product from the market. If we fail to comply with the regulatory requirements of the FDA and other U.S. and non-U.S. regulatory authorities, or if previously unknown problems with our products, manufacturers or manufacturing processes are discovered, we could be subject to significant penalties.

If we are not able to maintain regulatory compliance, we would likely not be permitted to manufacture and market any future product candidates and may not achieve or sustain profitability. Further, the cost of compliance with post-approval regulations may have a negative effect on our operating results and financial condition.
Our product candidates may have undesirable side effects that may delay or prevent marketing approval, or, if approval is received, require them to be taken off the market, include safety warnings or otherwise limit their sales.

Although our product candidates, omadacycline and sarecycline, have undergone or will undergo safety testing in laboratory animals, not all adverse effects of drugs can be predicted or anticipated from these preclinical safety and toxicology studies. Unforeseen side effects from either of our product candidates could arise either during clinical development or, if approved by regulatory authorities, after the approved product has been marketed. Each of omadacycline and sarecycline are still in clinical development, and our other product candidates, which are in the pre-clinical phase, are not currently being further developed. Many of the most widely used antibiotics are associated with treatment-limiting adverse events, including in some instances, kidney damage, allergic reactions or sudden cardiovascular death due to cardiac arrhythmia. While clinical trials to date for omadacycline and sarecycline appear to have shown a favorable safety profile, the results from the Phase 3 registration clinical trials may not confirm these preliminary observations. The results of future clinical trials may show that our product candidates, including omadacycline and sarecycline, cause undesirable or unacceptable side effects, which could interrupt, delay or halt clinical trials, and result in delay of, or failure to obtain, marketing approval from the FDA and other regulatory authorities, or result in marketing approval from the FDA and other regulatory authorities with restrictive label warnings or potential product liability claims. If any of our product candidates receive marketing approval and we or others later identify undesirable or unacceptable side effects caused by such products:

- regulatory authorities may require the addition of labeling statements, specific warnings, a contraindication or field alerts to physicians and pharmacies;
- we may be required to change the way the product is administered, conduct additional clinical trials or change the labeling of the product;
- we may be subject to limitations on how we may promote the product;
- sales of the product may decrease significantly;
- regulatory authorities may require us or our partners to take our approved product off the market;
- we may be subject to litigation or product liability claims; and
- our reputation may suffer.

Any of these events could prevent us, our current partners or our potential future partners from achieving or maintaining market acceptance of the affected product or could substantially increase commercialization costs and expenses, which in turn could delay or prevent us from generating significant revenue from the sale of our products.

Coverage and reimbursement decisions by third-party payors may have an adverse effect on pricing and market acceptance. If there is not sufficient reimbursement for our products, it is less likely that our products will be widely used.

Even if our product candidates are approved for sale by the appropriate regulatory authorities, market acceptance and sales of these products and our partners’ products will depend on coverage and reimbursement policies. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which drugs they will cover and establish reimbursement levels. We cannot be certain that coverage will be available and reimbursement will be adequate for any products that we or our partners develop and commercialize. Also, we cannot be certain that coverage and reimbursement policies will not reduce the demand for, or the price paid for, our or our partners’ products. Patients who are prescribed medications for the treatment of their conditions, and their prescribing physicians, generally rely on third-party payors to reimburse all of part of the costs associated with their prescription drugs. Patients are unlikely to use our or our partners’ products unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of such products. Therefore, if coverage is not available or reimbursement is limited, we and our partners may not be able to successfully commercialize any of our approved products.
The process for determining whether a third-party payor will provide coverage for a drug product typically is separate from the process for setting the price of a drug product or for establishing the reimbursement rate that the payor will pay for the drug product once coverage is approved. Third-party payors may limit coverage to specific drug products on an approved list, also known as a formulary, which might not include all of the FDA-approved drugs for a particular indication. A decision by a third-party payor not to cover our product candidates could reduce physician utilization of our products once approved. Moreover, a third-party payor’s decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development. Additionally, coverage and reimbursement for drug products can differ significantly from payor to payor. One third-party payor’s decision to cover a particular drug product or service does not ensure that other payors will also provide coverage for the medical product or service, or will provide coverage at an adequate reimbursement rate. As a result, the coverage determination process will require us to provide scientific and clinical support for the use of our products to each payor separately and will be a time-consuming process.

Healthcare legislative reform measures may have a material adverse effect on our business and results of operations.

The United States and several foreign jurisdictions are considering, or have already enacted, a number of legislative and regulatory proposals to change the healthcare system in ways that could affect our or our partners’ ability to sell any of our future approved products profitably. Among policymakers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and/or expanding access to healthcare. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives. We expect to experience pricing pressures in connection with the sale of any products that we or our partners develop due to the trend toward managed healthcare, the increasing influence of health maintenance organizations and additional legislative proposals.

In March 2010, the ACA became law in the United States. The stated goal of the ACA is to reduce the cost of healthcare and substantially change the way healthcare is financed by both governmental and private insurers. The ACA, among other things, addressed a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected, increased the minimum Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program and extended the rebate program to individuals enrolled in Medicaid managed care organizations, established annual fees and taxes on manufacturers of certain branded prescription drugs. The ACA also established a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer’s outpatient drugs to be covered under Medicare Part D. While we cannot predict what impact on federal reimbursement policies this legislation will have in general or on our business specifically, the ACA may result in downward pressure on pharmaceutical reimbursement, which could negatively affect market acceptance of, and the price we may charge for, any products that we or our partners develop due to the trend toward managed healthcare, the increasing influence of health maintenance organizations and additional legislative proposals.

Other legislative changes have been proposed and adopted in the United States since the ACA was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation’s automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of 2% per fiscal year, which went into effect in April 2013 and, due to legislative amendments, will remain in effect through 2024 unless additional Congressional action is
taken. In addition, in January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, further reduced Medicare payments to several categories of healthcare providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. If we or our partner Actavis ever obtain regulatory approval and commercialize omadacycline or sarecycline these new laws may result in additional reductions in Medicare and other healthcare funding, which could harm our customers and accordingly, our financial operations.

If we do not obtain protection under the Hatch-Waxman Amendments and similar foreign legislation by extending the term of patents covering each of our product candidates, our business may be materially harmed.

Depending upon the timing, duration and conditions of FDA marketing approval of our product candidates, one or more of our U.S. patents may be eligible for limited patent term extension under the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent term extension of up to five years for a patent covering an approved product as compensation for effective patent term lost during product development and the FDA regulatory review process. However, we may not receive an extension if we fail to apply within applicable deadlines, fail to apply prior to expiration of relevant patents or otherwise fail to satisfy applicable requirements. Moreover, the length of the extension could be less than our request. If we are unable to obtain patent term extension or the term of any such extension is less than we request, the period during which we can enforce our patent rights for that product may not extend beyond the current patent expiration dates and our competitors may obtain approval to market competing products sooner. As a result, our revenue could be reduced, possibly materially.

If we or our partners market products in a manner that violates fraud and abuse and other healthcare laws, or if we or our partners violate government price reporting laws, we or our partners may be subject to administrative civil and/or criminal penalties.

In addition to FDA restrictions on marketing of pharmaceutical products, several other types of state and federal healthcare laws, including those commonly referred to as “fraud and abuse” laws have been applied in recent years to restrict certain marketing practices in the pharmaceutical industry. These laws include, among others, false claims and anti-kickback statutes. At such time, if ever, as we or any of our partners market any of our future approved products, it is possible that some of our or our partner’s business activities could be subject to challenge under one or more of these laws. The laws that may affect our ability to operate include:

- federal false claims, false statements and civil monetary penalties laws prohibiting, among other things, any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government or knowingly making, or causing to be made, a false statement to get a false claim paid;
- the federal Anti-Kickback Statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce, or in return for, purchasing, leasing, ordering or arranging for the purchase, lease or order of any healthcare item or service reimbursable under Medicare, Medicaid or other federally financed healthcare programs. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers and formulary managers on the other. Although there are several statutory exceptions and regulatory safe harbors protecting certain common activities from prosecution, the exceptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchasing or recommending may be subject to scrutiny if they do not qualify for an exception or safe harbor. In addition, we and/or our partners may be subject to data privacy and security regulation, including the Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act, and their respective implementing regulations, which impose specified requirements relating to the privacy, security and transmission of individually identifiable health information;
the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private), knowingly and willfully embezzling or stealing from a health care benefit program, willfully obstructing a criminal investigation of a healthcare offense and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it to have committed a violation;

federal data privacy and security regulation, including HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, and their respective implementing regulations, which impose specified requirements relating to the privacy, security and transmission of individually identifiable health information;

the federal Physician Payments Sunshine Act and its implementing regulations, which imposed annual reporting requirements for certain manufacturers of drugs, devices, biologicals and medical supplies for payments and “transfers of value” provided to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members; and

analogous state and foreign laws, such as state anti-kickback and false claims laws, which may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry’s voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government or otherwise restrict payments that may be made to healthcare providers; state and foreign laws that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; and state and foreign laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Efforts to ensure that our and our partners’ business arrangements with third parties will comply with applicable healthcare laws and regulations may involve substantial costs. It is possible that governmental authorities will conclude that our or our partners’ business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws.

Pharmaceutical and other healthcare companies have been prosecuted under these laws for a variety of promotional and marketing activities, such as: providing free trips, free goods, sham consulting fees and grants and other monetary benefits to prescribers; reporting to pricing services inflated average wholesale prices that were then used by federal programs to set reimbursement rates; engaging in off-label promotion; and submitting inflated best price information to the Medicaid Rebate Program to reduce liability for Medicaid rebates. If our or our partners’ operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we or our partners may be subject to significant civil, criminal and administrative penalties, including, without limitation, damages, fines, imprisonment, exclusion from participation in government healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations, which could significantly harm our business.
Risks Related to Our Business

We face significant competition and if our competitors develop and market products that are more effective, safer or less expensive than our product candidates, our commercial opportunities will be negatively impacted.

The life sciences industry is highly competitive and subject to rapid and significant technological change. We are currently developing products that will compete with other drugs and therapies that currently exist or are being developed. Products that we may develop in the future are also likely to face competition from other drugs and therapies, some of which we may not currently be aware. We have competitors both in the United States and internationally, including major multinational pharmaceutical companies, established biotechnology companies, specialty pharmaceutical companies, universities and other research institutions. Many of our competitors have significantly greater financial, manufacturing, marketing, drug development, technical and human resources than we do. Large pharmaceutical companies, in particular, have extensive experience in clinical testing, obtaining regulatory approvals, recruiting patients and manufacturing pharmaceutical products. These companies also have significantly greater research, development and marketing capabilities than we do and may also have products that have been approved or are in late stages of development, and collaborative arrangements in our target markets with leading companies and research institutions. Established pharmaceutical companies may also invest heavily to accelerate discovery and development of novel compounds or to in-license novel compounds that could make the product candidates that we develop obsolete or less competitive. As a result of all of these factors, our competitors may succeed in obtaining patent protection and/or FDA approval or discovering, developing and commercializing antibiotics before we do so for any of our product candidates.

The GAIN Act is intended to provide incentives for the development of new QIDPs. These incentives may result in more competition in the market for new antibiotics and may cause pharmaceutical and biotechnology companies with more resources than we have to shift their efforts toward the development of products that could be competitive with our product candidates.

The competition in the market for antibiotics such as omadacycline is intense. If approved, omadacycline will face competition from commercially available antibiotics such as vancomycin, marketed as a generic by Abbott Laboratories and others; linezolid, sold under the brand name Zyvox by Pfizer Inc.; daptomycin, sold under the brand name Cubicin by Cubist Pharmaceuticals, Inc.; dalbavancin, approved in May 2014 and marketed by Durata Therapeutics, Inc. as Dalvance; tedizolid, marketed as Sivextro by Cubist Pharmaceuticals, Inc.; oritavancin, approved in August 2014 and marketed by The Medicines Company as Orbtic; quinupristin/dalfopristin, sold under the brand name Synercid by Pfizer, Inc.; tigecycline, sold under the brand name Tygacil by Pfizer, Inc.; telavancin, sold as Vibativ by Theravance, Inc.; ceftaroline, sold under the brand name Teflaro by Forest Laboratories, Inc.; and generic trimethoprim/sulfamethoxazole.

Vancomycin has been a widely used and well known antibiotic for over 40 years and is sold in a relatively inexpensive generic IV form. Vancomycin, daptomycin, quinupristin/dalfopristin, trimethoprim/sulfamethoxazole, ceftaroline, tigecycline, linezolid and telavancin are all approved treatments for serious gram-positive infections such as ABSSSI. Additionally, ceftaroline is approved for CABP; moxifloxacin is approved for CABP, intra-abdominal infections, acute exacerbations of chronic bronchitis and acute bacterial sinusitis; levofloxacin and ceftriaxone are approved for many of the same uses as moxifloxacin as well as for urinary tract infections; azithromycin and clarithromycin are primarily approved for upper and lower respiratory tract infections, including CABP; daptomycin is an approved treatment for cSSSI and bacteremia; tigecycline is an approved treatment for cSSSI, CABP and intra-abdominal infections; linezolid is an approved treatment for pneumonia; and vancomycin is an approved treatment for both bacteremia and pneumonia. If we are unable to obtain regulatory approval of omadacycline for some or all of the indications for which our competitors are approved, we may not be able to compete effectively with such antibiotics.

In addition, if approved, omadacycline may face additional competition from antibiotics currently in clinical development. Other antibiotics currently in development include cefobiprole, under development by Basilea Pharmaceutical AG and approved in 13 European countries; solithromycin, under development by Cempra, Inc.; NXL-103, under development by AstraZeneca PLC; eravacycline, under development by Tetraphase
Pharmaceuticals; delafloxacin and radezolid, under development by Melinta Pharmaceuticals, Inc.; INJ-Q2, under development by Furiex; and BC-3781 under development by Nabriva, which, if approved, would compete in the antibiotic market. In addition, our product candidates may each face competition from product candidates that could receive regulatory approval before our product candidates in countries outside the United States and the European Union. If we are unable to demonstrate points of differentiation between our product candidates and competing products, we may not be able to successfully commercialize our product candidates, our commercial opportunities will be negatively impacted and our results of operations will suffer.

We and our partner, Actavis, will also face competition in the acne markets where generic tetracyclines such as doxycycline and minocycline are available in every market around the world. Branded generic versions of tetracycline derivatives are sold by several companies.

In addition, many universities and private and public research institutes may become active in our target indications. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large, established companies.

We believe that our ability to successfully compete will depend on, among other things:

- the results of our and our partners’ registration clinical trials, in particular our two Phase 3 registration clinical trials for omadacycline—one in ABSSSI and one in CABP;
- our and our partners’ ability to recruit and enroll patients for our and our partners’ clinical trials;
- the efficacy, safety and reliability of our and our partners’ product candidates;
- our and our partners’ ability to reliably manufacture any of our formulations;
- the speed at which we and our partners develop our product candidates;
- our and our partners’ ability to commercialize and market, or find partners to help or exclusively commercialize and market, any of our product candidates that receive regulatory approval;
- our and our partners’ ability to design and successfully execute appropriate clinical trials;
- our and our partners’ ability to maintain a productive relationship with regulatory authorities;
- the timing and scope of regulatory approvals;
- the effectiveness of our, our current partners’ or any future partners’ marketing and sales capabilities;
- the price of our products;
- coverage and adequate levels of reimbursement under private and governmental health insurance plans, including Medicare;
- our and our partners’ ability to protect and maintain intellectual property rights related to our product candidates;
- our and our partners’ ability to manufacture and sell commercial quantities at a reasonable cost of any approved products to the market; and
- acceptance of any approved products by physicians and other healthcare providers.

If our competitors market products that are more effective, safer or less expensive than, or that reach the market sooner than, our or any of our partners’ future products, if any, we may not achieve commercial success. In addition, the biopharmaceutical industry is characterized by rapid technological change. If we fail to stay at the forefront of technological change, we may be unable to compete effectively. Technological advances or products developed by our competitors may render our technologies or product candidates obsolete, less competitive or not economical.
In addition, in the event that our or any of our partners’ products receives regulatory approval, price competition may inhibit the acceptance of our products, physicians may be reluctant to switch from existing products to our products, physicians may switch to other newly approved drug products, or physicians may choose to reserve our products for use in limited circumstances.

If the FDA or other applicable regulatory authorities approve generic products that compete with any of our or any of our partners’ product candidates, or if existing generic antibiotics are viewed as being equally effective to our or any of our partners’ product candidates, the sales of our product candidates would be adversely affected.

Once an NDA or marketing authorization application outside the United States is approved, the product covered thereby becomes a “listed drug” that can, in turn, be cited by potential competitors in support of approval of an ANDA in the United States. Agency regulations and other applicable regulations and policies provide incentives to manufacturers to create modified, non-infringing versions of a drug to facilitate the approval of an ANDA or other application for generic substitutes in the United States and in nearly every pharmaceutical market around the world. These manufacturers might only be required to conduct a relatively inexpensive study to show that their product has the same active ingredient(s), dosage form, strength, route of administration and conditions of use, or labeling, as our product candidate and that the generic product is bioequivalent to ours, meaning it is absorbed in the body at the same rate and to the same extent as our product candidate. These generic equivalents, which must meet the same quality standards as branded pharmaceuticals, would be significantly less costly than ours to bring to market, and companies that produce generic equivalents are generally able to offer their products at lower prices. Thus, after the introduction of a generic competitor, a significant percentage of the sales of any branded product is typically lost to the generic product. Accordingly, competition from generic equivalents to ours or any of our partners’ future products, if any, would materially adversely impact our future revenue, profitability and cash flows and substantially limit our ability to obtain a return on the investments we have made in our or any of our partners’ product candidates, including omadacycline. For example, vancomycin has been available in generic form for many years, and Zyvox (linezolid) is expected to become available in generic form when certain patents covering it expire in 2015. We cannot yet ascertain what impact these generic products and any future approved generic products will have on any sales of our products, if approved.

The success of our business may be dependent on the actions of our collaborative partners.

An element of our business and funding strategy is to enter into collaborative arrangements with established pharmaceutical and biotechnology companies who will finance or otherwise assist in the development, manufacture and marketing of products incorporating our technology, and who also provide us with funding in the form of milestone payments for progress in clinical development or regulatory approval. For example, we have exclusively licensed rights to sarecycline for the treatment of acne in the United States to Actavis, and Actavis is responsible for all clinical development, registration and commercialization in the United States of sarecycline for the treatment of acne. In addition, we have granted Actavis an exclusive license to develop and commercialize sarecycline for the treatment of rosacea in the United States, which converted to a non-exclusive license in December 2014 after Actavis did not exercise its development option with respect to rosacea. There are currently no clinical trials in rosacea underway.

Accordingly, our prospects will depend in part upon our ability to attract and retain collaborative partners and to develop technologies and products that achieve the criteria for milestone payments. When we collaborate with a third party for development and commercialization of a product candidate, we can expect to relinquish some or all of the control over the future success of that product candidate to the third party. In addition, our collaborative partners may have the right to abandon research or development projects and terminate applicable agreements, including funding obligations, prior to or upon the expiration of the agreed upon terms. We cannot assure you that we will be successful in establishing or maintaining collaborative arrangements on acceptable terms or at all, that collaborative partners will not terminate funding before completion of projects, that our product candidates will achieve the criteria for milestone payments, that our collaborative arrangements will result in successful product commercialization, or that we will derive any revenue from such arrangements. For example, we previously entered into a license and collaboration agreement with Novartis for the development of
omadacycline, which was terminated. To the extent that we are not able to develop and maintain collaborative arrangements, we would need substantial additional capital to undertake research, development and commercialization activities on our own, we may be forced to limit the number of our product candidates we can commercially develop or the territories in which we commercialize them, and we might fail to commercialize products or programs for which a suitable collaborator cannot be found.

Reliance on collaborative relationships poses a number of risks, including the following:

- our collaborators may not perform their obligations as expected or in compliance with applicable laws;
- the prioritization, amount and timing of resources dedicated by our collaborators to their respective collaborations with us is not under our control;
- some product candidates discovered in collaboration with us may be viewed by our collaborators as competitive with their own product candidates or products;
- our collaborators may elect not to proceed with the development of product candidates that we believe to be promising;
- disagreements with collaborators, including disagreements over proprietary rights, contract interpretation or the preferred course of development, might cause delays or termination of the research, development or commercialization of product candidates, might lead to additional responsibilities for us with respect to product candidates, or might result in litigation or arbitration, any of which would be time-consuming and expensive;
- some of our collaborators might develop independently, or with others, products that could compete with our products;
- a delay in the development timelines for sarecycline would result in a potential loss of development milestones and future royalties (if any) from the partnership; and
- if the rights to sarecycline are returned to us, we will need to establish a new development partnership to further sarecycline development internally. There can be no assurance that we would be able to find such a partner.

If we are not able to establish and sustain additional partnerships, we may have to alter our development and commercialization plans, which could harm our business.

We anticipate that we will require additional funding to complete the NDA and the EMA Market Authorization Application registration filings and commercialization of omadacycline and to continue the development of any of our other product candidates. For some of our product candidates, we may decide to collaborate with pharmaceutical and biotechnology companies for the development and potential commercialization of those product candidates, as we have done with Actavis for sarecycline.

We face significant competition in seeking appropriate collaborators. Whether or not we reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator’s resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator’s evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of approval by the FDA or similar regulatory authorities outside the United States, the potential market for the product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the patent position protecting the product candidate, the potential of competing products, the need to seek licenses or sub-licenses to third-party intellectual property and industry and market conditions generally. The collaborator may also consider alternative product candidates or technologies and whether collaboration on an alternative product could be more attractive than a collaboration with us. We may also be restricted under future license agreements from entering into agreements on certain terms with potential collaborators. Collaborations
are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators.

We may not be able to negotiate collaborations on a timely basis, on acceptable terms or at all. If we are unable to do so, it may delay completion of development and potential commercialization of our products. If we elect to increase our expenditures to fund development, registration or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop our product candidates or bring them to market and generate product revenue.

Further, even if we are able to enter into collaborations, we must be able to sustain a mutually beneficial working relationship with our collaborators in order to achieve the intended benefits of those collaborations. In the past, certain of our collaborators, including Novartis, have terminated their partnering relationships with us due to delays and uncertainties in connection with the FDA regulatory pathway for approval of omadacycline for the ABSSSI and CABP indications. This past history may affect our ability to attract and enter into collaboration arrangements with future partners or collaborators for the development of omadacycline.

We rely and will continue to rely on outsourcing arrangements for manufacturing of our product candidates. Reliance on third-party manufacturers could delay approval or commercialization of our products.

We do not currently own or operate manufacturing facilities for the production of any of our product candidates, nor do we intend to manufacture the pharmaceutical products that we plan to sell. We currently depend on third-party contract manufacturers for the supply of the active pharmaceutical ingredients for our product candidates, including drug substance for our preclinical research and clinical trials. To date, we have obtained starting materials for our supply of omadacycline from a limited number of third-party manufacturers and have purchased all of our drug supplies on a purchase order basis. We intend to enter into long-term supply agreements with these manufacturers for commercial supplies. We are currently in discussions with these and other third-party manufacturers for clinical trial and commercial supplies. We may not be able to reach agreement with any of these contract manufacturers, or to identify and reach arrangement on satisfactory terms with other contract manufacturers, to manufacture omadacycline or any of our other product candidates. Additionally, we anticipate that the facilities used by any contract manufacturer to manufacture any of our product candidates will be the subject of an inspection before the FDA and other regulatory authorities approve an NDA or marketing authorization for the product candidate manufactured at that facility. We will depend on these third-party manufacturing partners for compliance with the FDA’s manufacturing requirements for finished products. If our manufacturers cannot successfully manufacture material that conforms to our specifications and the FDA and other regulatory authorities’ cGMP requirements, our product candidates will not be approved or, if already approved, may be subject to recalls. While third-party manufacturers of our product candidates, including omadacycline, have previously passed FDA and other regulatory agency inspections, we cannot provide assurance that they will pass such inspections in the future.

Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured the product candidates itself, including:

- the possibility of a breach of the manufacturing agreements by the third parties because of factors beyond our control;
- the possibility of termination or nonrenewal of the agreements by the third parties before we are able to arrange for a qualified replacement third-party manufacturer;
- the possibility that we may not be able to secure a manufacturer or manufacturing capacity in a timely manner and on satisfactory terms in order to meet our manufacturing needs; and
the possibility that the third parties may not be able to respond adequately to unexpected changes in demand forecasts that may result in either lost revenue or excessive inventory with decreasing shelf-life.

Any of these factors could cause the delay of approval or commercialization of our products, cause us to incur higher costs or prevent us from commercializing our product candidates successfully. Furthermore, if any of our product candidates are approved and contract manufacturers fail to continuously meet FDA compliance standards or fail to deliver the required commercial quantities of finished product on a timely basis and at commercially reasonable prices, and we are unable to find one or more replacement manufacturers capable of production at a substantially equivalent cost, in substantially equivalent volumes and quality and on a timely basis, we would likely be unable to meet demand for our products and could lose potential revenue. It may take one or more years to establish an alternative source of supply for our product candidates and to have any such new source approved by the FDA or any other relevant regulatory authorities.

We currently have no sales or distribution infrastructure with respect to our product candidates. If we are unable to develop our sales, marketing and distribution capability on our own or through collaborations with marketing partners, we will not be successful in commercializing our product candidates.

We currently have no sales or distribution capabilities within our organization. If our product candidate omadacycline is approved, we intend either to establish a sales and marketing organization with technical expertise and supporting distribution capabilities to commercialize omadacycline, or to outsource this function to a third party. Either of these options would be expensive and time consuming. Some or all of these costs may be incurred in advance of any approval of omadacycline. In addition, we may not be able to hire a sales force in the United States that is large enough or has adequate expertise in the medical markets that we intend to target. Any failure or delay in the development of our internal sales, marketing and distribution capabilities would adversely impact the commercialization of omadacycline.

With respect to our existing and future product candidates, we may choose to collaborate with third parties that have direct sales forces and established distribution systems, either to augment our own sales force and distribution systems or as an alternative to our own sales force and distribution systems. To the extent that we enter into co-promotion or other licensing arrangements, our product revenue may be lower than if we directly marketed or sold any approved products. In addition, any revenue we receive will depend in whole or in part upon the efforts of these third parties, which may not be successful and are generally not within our control. If we are unable to enter into these arrangements on acceptable terms or at all, we may not be able to successfully commercialize any approved products. If we are not successful in commercializing any approved products, either on our own or through collaborations with one or more third parties, our future product revenue will suffer, and we may incur significant additional losses.

Independent clinical investigators and CROs that we engage to conduct our clinical trials may not devote sufficient time or attention to our and our partners’ clinical trials or be able to repeat their past success.

We expect to depend on independent clinical investigators and CROs to participate in and conduct our clinical trials, including our planned Phase 3 clinical trials of omadacycline in ABSSSI and CABP. CROs may also assist us and our partners in the collection and analysis of data. There is a limited number of third-party service providers that specialize or have the expertise required to achieve our business objectives. Identifying, qualifying and managing performance of third-party service providers can be difficult, time consuming and cause delays in our or our partners’ development programs. These investigators and CROs will not be our employees, and we will not be able to control, other than by contract, the amount of resources, including time, that they devote to our product candidates and clinical trials. If independent investigators fail to devote sufficient resources to the development of our product candidates, or if their performance is substandard, it may delay or compromise the prospects for approval and commercialization of any product candidates that we and our partners develop.
addition, the use of third-party service providers requires us to disclose our proprietary information to these parties, which could increase the risk that this information will be misappropriated. Further, the FDA requires that we and our partners comply with standards, commonly referred to as current Good Clinical Practice, for conducting, recording and reporting clinical trials to assure that data and reported results are credible and accurate and that the rights, safety, integrity and confidentiality of clinical trial subjects are protected. Failure of clinical investigators or CROs to meet their obligations to us or comply with current Good Clinical Practices could adversely affect the clinical development of our product candidates and harm our business.

Our success is currently dependent on the successful development and commercialization of our most advanced product candidates, omadacycline and sarecycline.

Our success is currently dependent on the successful development and commercialization of our most advanced product candidates, omadacycline and sarecycline, which is currently being developed by Actavis. We are not currently developing any of our other product candidates that are in the pre-clinical phase. If omadacycline and sarecycline are not successfully developed and commercialized, we will not have any product candidates under development from which we might generate revenue. We currently have no such plans to develop any other product candidates and will need additional financing to fund such development should we decide to do so in the future.

Even if approved, if omadacycline or sarecycline does not achieve broad market acceptance among physicians, patients, the medical community and third-party payors, our revenue generated from their sales will be limited.

The commercial success of our product candidates will depend upon their acceptance among physicians, patients and the medical community. The degree of market acceptance of our product candidates will depend on a number of factors, including:

- limitations or warnings contained in a product candidate’s FDA or foreign regulatory approved labeling;
- changes in the standard of care for the targeted indications for any of our product candidates;
- limitations in the approved clinical indications for our product candidates;
- demonstrated clinical safety and efficacy compared to other products;
- lack of significant adverse side effects;
- sales, marketing and distribution support;
- availability of coverage and adequate reimbursement from governmental or private third-party payors, such as Medicare or managed care plans;
- timing of market introduction and perceived effectiveness of competitive products;
- the degree of cost-effectiveness of our product candidates;
- availability of alternative therapies at similar or lower cost, including generics and over-the-counter products;
- the extent to which the product candidate is approved for inclusion on formularies of hospitals, and third-party payors, including managed care organizations;
- whether the product is designated under physician treatment guidelines as a therapy for particular infections;
- adverse publicity about our product candidates or favorable publicity about competitive products;
- convenience and ease of administration of our products; and
- potential product liability claims.
If our product candidates are approved, but do not achieve an adequate level of acceptance by physicians, patients and the medical community, we and our partners may not generate sufficient revenue from these products, and we may not become or remain profitable. In addition, efforts to educate the medical community and third-party payors on the benefits of our product candidates may require significant resources and may never be successful.

Even if we obtain FDA approval of our current or any future product candidates, we or our partners may never obtain approval or commercialize our products outside of the United States, which would limit our ability to realize their full market potential.

In order to market any products outside of the United States, we must establish and comply with numerous and varying regulatory requirements of other countries regarding clinical trial design, safety and efficacy. Clinical trials conducted in one country may not be accepted by regulatory authorities in other countries, and regulatory approval in one country does not mean that regulatory approval will be obtained in any other country. Approval procedures vary among countries and can involve additional product testing and validation and additional administrative review periods. Seeking foreign regulatory approvals could result in significant delays, difficulties and costs for us and may require additional preclinical studies or clinical trials. Satisfying these and other regulatory requirements is costly, time consuming, uncertain and subject to unanticipated delays. In addition, our failure to obtain regulatory approval in any country may delay or have negative effects on the process for regulatory approval in other countries. We and our partners do not have any product candidates approved for sale in any jurisdiction, including international markets, and we do not have experience in obtaining regulatory approval in international markets. If we or our partners fail to comply with regulatory requirements in international markets or to obtain and maintain required approvals, our target market will be reduced and our ability to realize the full market potential of our products will be harmed. Further, while we have obtained SPA agreements with the FDA for our Phase 3 registration clinical trial designs for omadacycline in ABSSSI and CABP, these agreements are not binding with any international regulatory authorities.

Bacteria might develop resistance to any of our antibiotic product candidates, which would decrease the efficacy and commercial viability of those product candidates.

Drug resistance is primarily caused by the genetic mutation of bacteria resulting from suboptimal exposure to antibiotics where the drug does not eradicate all of the bacteria. While antibiotics have been developed to treat many of the most common infections, the extent and duration of their use worldwide has resulted in new mutated strains of bacteria resistant to current treatments. Our product candidate omadacycline is being developed to treat patients infected with drug-resistant bacteria. If physicians, rightly or wrongly, associate the resistance issues of older generations of tetracyclines with omadacycline, physicians might not prescribe omadacycline for treating a broad range of infections. In addition, bacteria might develop resistance to omadacycline if such bacteria are improperly dosed or treated repeatedly with omadacycline over multiple years, causing the efficacy of omadacycline to decline, which would negatively affect our potential to generate revenue from omadacycline.

If any product liability lawsuits are successfully brought against us or any of our collaborative partners, we may incur substantial liabilities and may be required to limit commercialization of our product candidates.

We face an inherent risk of product liability lawsuits related to the testing of our product candidates in seriously ill patients and will face an even greater risk if product candidates are approved by regulatory authorities and introduced commercially. Product liability claims may be brought against us or our partners by participants enrolled in our clinical trials, patients, healthcare providers or others using, administering or selling any of our future approved products. If we cannot successfully defend ourselves against any such claims, we may incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any of our future approved products;
- injury to our reputation;
- withdrawal of clinical trial participants;
termination of clinical trial sites or entire clinical trial programs;

• significant litigation costs;

• substantial monetary awards to or costly settlements with patients or other claimants;

• product recalls or a change in the indications for which they may be used;

• loss of revenue;

• diversion of management and scientific resources from our business operations; and

• the inability to commercialize our product candidates.

If any of our product candidates are approved for commercial sale, we will be highly dependent upon consumer perceptions of us and the safety and quality of our products. We could be adversely affected if we are subject to negative publicity. We could also be adversely affected if any of our products or any similar products distributed by other companies prove to be, or are asserted to be, harmful to patients. Also, because of our dependence upon consumer perceptions, any adverse publicity associated with illness or other adverse effects resulting from patients’ use or misuse of our products or any similar products distributed by other companies could have a material adverse impact on our results of operations.

We currently hold $10.0 million in product liability insurance coverage in the aggregate annually, with a per incident limit of $10.0 million, which may not be adequate to cover all liabilities that we may incur. We may need to increase our insurance coverage when we begin the commercialization of our product candidates. Insurance coverage is becoming increasingly expensive. As a result, we may be unable to maintain or obtain sufficient insurance at a reasonable cost to protect us against losses that could have a material adverse effect on its business. These liabilities could prevent or interfere with our product development and commercialization efforts. A successful product liability claim or series of claims brought against us, particularly if judgments exceed our insurance coverage, could decrease our cash resources and adversely affect our business, financial condition and results of operation.

If we fail to attract and retain key management and scientific personnel, we may be unable to successfully develop or commercialize our product candidates.

Our industry has experienced a high rate of turnover of management personnel in recent years. We are to a certain extent dependent on the members of our senior management team, such as Michael F. Bigham, our Chief Executive Officer and the Chairman of our board of directors, and Evan Loh, M.D., our President and Chief Medical Officer, for our business success. The employment agreements with our senior management team can be terminated by us or them at any time, with notice. The departure of any of our executive officers could result in a significant loss in the knowledge and experience that we, as an organization, possess and could cause significant delays, or outright failure, in the execution of our strategies and development and approval of our product candidates.

Our success depends in part on our continued ability to attract, retain and motivate highly qualified management, development and clinical personnel. We may not be able to attract or retain such qualified personnel due to the intense competition for qualified personnel among biotechnology, pharmaceutical and other businesses. If we are not able to attract and retain the necessary personnel to accomplish our business objectives, we may experience constraints that will impede significantly our development objectives and timelines, our ability to raise additional capital and our ability to implement our business strategy.

We consult with scientific and clinical advisors who assist us in formulating our development and clinical strategies. These advisors are not our employees and may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to us. Typically, these advisors will not enter into non-compete agreements with us. If a conflict of interest arises between their work for us and their work for another entity, we may lose their services. In addition, our advisors may have arrangements with other companies to assist those companies in developing products or technologies that may compete with our own products or technologies.
We depend on various consultants and advisors for the success and continuation of our development efforts.

We work extensively with various consultants and advisors, who provide advice and/or services in various business and development functions, including clinical development, operations and strategy, regulatory matters, legal and finance. The potential success of our drug development programs depends, in part, on continued collaborations with certain of these consultants and advisors. Our consultants and advisors are not our employees and may have commitments and obligations to other entities that may limit their availability to us. We do not know if we will be able to maintain such relationships or that such consultants and advisors will not enter into other arrangements with competitors, any of which could have a detrimental impact on our development objectives and our business.

We will need to grow our organization, and we may experience difficulties in managing this growth, which could disrupt our operations.

As of February 28, 2015, we had 13 full-time employees. Assuming our development and commercialization plans and strategies develop, we expect to expand our employee base for managerial, operational, sales, marketing, financial and other resources. Future growth would impose significant added responsibilities on members of management, including the need to identify, recruit, maintain, motivate and integrate additional employees. Also, our management may need to divert a disproportionate amount of their attention away from our day-to-day activities and devote a substantial amount of time to managing these growth activities. We may not be able to effectively manage the expansion of our operations that may result in weaknesses in our infrastructure, give rise to operational mistakes, loss of business opportunities, loss of employees and reduced productivity among remaining employees. Our expected growth could require significant capital expenditures and may divert financial resources from other projects, such as the development of existing and additional product candidates. If our management is unable to effectively manage our expected growth, our expenses may increase more than expected, our ability to generate and/or grow revenue could be reduced and we may not be able to implement our business strategy. Our future financial performance and our ability to commercialize omadacycline and our other product candidates and compete effectively with others in our industry will depend, in part, on our ability to effectively manage any future growth.

Our and our partners’ business may become subject to economic, political, regulatory and other risks associated with international operations.

Our business is subject to risks associated with conducting business internationally, in part due to a number of our suppliers and collaborative and clinical trial relationships being located outside the United States. Accordingly, our future results could be harmed by a variety of factors, including:

- economic weakness, including inflation or political instability, in particular foreign economies and markets;
- differing regulatory requirements for drug approvals in foreign countries;
- differing regulatory requirements for drug product pricing and reimbursement;
- potentially reduced protection for intellectual property rights;
- difficulties in compliance with non-U.S. laws and regulations;
- changes in non-U.S. regulations and customs, tariffs and trade barriers;
- changes in non-U.S. currency exchange rates and currency controls;
- changes in a specific country’s or region’s political or economic environment;
- trade protection measures, import or export licensing requirements or other restrictive actions by U.S. or non-U.S. governments;
- negative consequences from changes in tax laws;
• compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
• workforce uncertainty in countries where labor unrest is more common than in the United States;
• difficulties associated with staffing and managing foreign operations, including differing labor relations;
• production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
• business interruptions resulting from geo-political actions, including war and terrorism, or natural disasters, including earthquakes, typhoons, floods and fires.

These risks may materially adversely affect our ability to attain or sustain profitable operations.

If we do not comply with laws regulating the protection of the environment and health and human safety, our business could be adversely affected.

Our research and development involves the use of potentially hazardous materials and chemicals. Our operations may have produced hazardous waste products. Although we believe that our safety procedures for handling and disposing of these materials complied with the standards mandated by local, state and federal laws and regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. We are also subject to numerous environmental, health and workplace safety laws and regulations and fire and building codes, including those governing laboratory procedures, exposure to blood-borne pathogens, use and storage of flammable agents and the handling of biohazardous materials. Although we have always maintained workers’ compensation insurance as prescribed by the Commonwealth of Massachusetts to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of these materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us. Additional federal, state and local laws and regulations affecting our operations may be adopted in the future. We may incur substantial costs to comply with, and substantial fines or penalties if we violate, any of these laws or regulations.

Our employees, contractors, partners, principal investigators, CROs, consultants and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

We are exposed to the risk that our employees, contractors, partners, principal investigators, CROs, consultants and vendors may engage in fraudulent conduct or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or disclosure of unauthorized activities to us that violates: FDA regulations, including those laws requiring the reporting of true, complete and accurate information to the FDA, federal and state healthcare fraud and abuse laws and regulations, laws that require the reporting of financial information or data timely, completely or accurately. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Third-party misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply
with these laws or regulations. If any such actions are instituted against us resulting from this misconduct, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant civil, criminal and administrative penalties, including, without limitation, damages, fines, imprisonment, exclusion from participation in government healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations, which could significantly harm our business.

We enter into various contracts in the normal course of our business in which we indemnify the other party to the contract. In the event we have to perform under these indemnification provisions, it could have a material adverse effect on our business, financial condition and results of operations.

In the normal course of business, we periodically enter into academic, commercial, service, collaboration, licensing, consulting and other agreements that contain indemnification provisions. With respect to our academic and other research agreements, we typically indemnify the institution and related parties from losses arising from claims relating to the products, processes or services made, used, sold or performed pursuant to the agreements for which we have secured licenses, and from claims arising from our or our sub licensees’ exercise of rights under the agreement. With respect to our commercial agreements, we indemnify our vendors from any third-party product liability claims that could result from the production, use or consumption of the product, as well as for alleged infringements of any patent or other intellectual property right by a third party. With respect to consultants, we indemnify them from claims arising from the good faith performance of their services.

Should our obligation under an indemnification provision exceed applicable insurance coverage or if we were denied insurance coverage, our business, financial condition and results of operations could be adversely affected. Similarly, if we are relying on a collaborator to indemnify us and the collaborator is denied insurance coverage or does not have assets available to indemnify us, our business, financial condition and results of operations could be adversely affected.

Our business and operations would suffer in the event of computer system failures.

Despite the implementation of security measures, our internal computer systems, and those of our CROs, our partners and other third parties on which we rely, are vulnerable to damage from computer viruses, unauthorized access, natural disasters, fire, terrorism, war and telecommunication and electrical failures. In addition, our systems safeguard important confidential personal data regarding our subjects. If a computer failure were to occur and cause interruptions in our operations, it could result in a material disruption of our drug development programs. For example, the loss of clinical trial data from completed, ongoing or planned clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach results in a loss of or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the further development of omadacycline and other product candidates could be delayed.

We may be unable to sell Intermezzo and may not receive revenue from the assignment of the TO-2070 assets pursuant to the SNBL Termination Agreement.

The success of sales of Intermezzo in the United States is dependent on the ability of Purdue Pharma to successfully commercialize Intermezzo pursuant to the Purdue License Agreement. The terms of the Purdue License Agreement provide that Purdue Pharma can terminate the agreement for any reason at any time upon advance notice of 180 days. If the Purdue License Agreement is terminated, our ability to generate revenue from sales of Intermezzo will be harmed. We do not intend to develop or commercialize Intermezzo ourselves. If the Purdue License Agreement is terminated and we decide to commercialize Intermezzo, we will be required to develop our own sales and marketing organization, fund any future clinical studies or other required regulatory activities (including any post-approval studies), and bear increased litigation expenses due to ANDA proceedings. We do not currently have the infrastructure in place or adequate resources to launch a commercial
product and implementing such infrastructure would require substantial time and resources. The value of Intermezzo, including the royalty stream, has been significantly impaired by the recent unfavorable ruling in the ANDA litigation (see the section titled “Legal Proceedings—Intermezzo Patent Litigation”). Alternatively, we may enter into another strategic collaboration in order to commercialize Intermezzo in the United States.

The manner in which Purdue Pharma commercializes Intermezzo, including the amount and timing of Purdue Pharma’s investment in commercial activities and pricing of Intermezzo, will have a significant impact on the ultimate success of Intermezzo in the United States, and the success of the overall commercial arrangement with Purdue Pharma. If Purdue Pharma deems Intermezzo to have insufficient market potential, it may continue to decrease its commercialization efforts, which would likely result in decreased sales of Intermezzo and negatively impact our business and operating results. During the first quarter of 2014, Purdue Pharma discontinued use of the Purdue Pharma sales force to actively market Intermezzo to healthcare professionals. Consequently, sales of the product have since declined.

Although we assigned all of our rights, interest and title to the TO-2070 assets to SNBL in exchange for a portion of certain future net revenue received by SNBL, up to an aggregate of $2.0 million, we are dependent upon the ability of SNBL to successfully license the TO-2070 assets. The manner in which SNBL licenses the TO-2070 assets, including the amount and timing of SNBL’s investment in marketing and licensing activities, will have a significant impact on our ability to receive revenue pursuant to the SNBL Termination Agreement. If SNBL deems TO-2070 to have insufficient licensing potential, SNBL may decrease efforts to seek a licensing partner, which would likely decrease any future revenue that we would receive pursuant to the SNBL Termination Agreement.

Risks Related to Our Intellectual Property

If we are unable to obtain and enforce patent protection for our product candidates and related technology, our business could be materially harmed.

Issued patents may be challenged, invalidated or circumvented. In addition, court decisions may introduce uncertainty in the enforceability or scope of patents owned by biotechnology companies. The legal systems of certain countries do not favor the aggressive enforcement of patents, and the laws of foreign countries may not allow us to protect our inventions with patents to the same extent as the laws of the United States. Because patent applications in the United States and many foreign jurisdictions are typically not published until 18 months after filing, or in some cases not at all, and because publications of discoveries in scientific literature lag behind actual discoveries, we cannot be certain that we were the first to make the inventions claimed in issued patents or pending patent applications, or that we were the first to file for protection of the inventions set forth in our patents or patent applications. As a result, we may not be able to obtain or maintain protection for certain inventions. If such inventions or related inventions are successfully patented by others, we may be required to obtain licenses under third-party patents to market our product candidates, as described in greater detail below. Therefore, enforceability and scope of our patents in the United States and in foreign countries cannot be predicted with certainty, and, as a result, any patents that we own or license may not provide sufficient protection against competitors. We may not be able to obtain or maintain patent protection from our pending patent applications, from those we may file in the future, or from those we may license from third parties. Moreover, even if we are able to obtain patent protection, such patent protection may be of insufficient scope to achieve our business objectives.

Our strategy depends on our ability to identify and seek patent protection for our discoveries. This process is expensive and time consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner or in all jurisdictions where protection may be commercially advantageous. Despite our efforts to protect our proprietary rights, unauthorized parties may be able to obtain and use information that we regard as proprietary. The issuance of a patent does not ensure that it is valid or enforceable, so even if we obtain patents, they may not be valid or enforceable against third parties. In
addition, the issuance of a patent does not give us the right to practice the patented invention. Third parties may have blocking patents that could prevent us from marketing our own patented product and practicing our own patented technology. Third parties may also seek to market generic versions of any approved products by submitting ANDAs to the FDA in which they claim that patents owned or licensed by us are invalid, unenforceable and/or not infringed. Alternatively, third parties may seek approval to market their own products similar to or otherwise competitive with our products. In these circumstances, we may need to defend and/or assert our patents, including by filing lawsuits alleging patent infringement. In any of these types of proceedings, a court or other agency with jurisdiction may find our patents invalid and/or unenforceable. Even if we have valid and enforceable patents, these patents still may not provide protection against competing products or processes sufficient to achieve our business objectives.

The patent position of pharmaceutical or biotechnology companies, including ours, is generally uncertain and involves complex legal and factual considerations. The standards that the USPTO and its foreign counterparts use to grant patents are not always applied predictably or uniformly and can change. There is also no uniform, worldwide policy regarding the subject matter and scope of claims granted or allowable in pharmaceutical or biotechnology patents. The laws of some foreign countries do not protect proprietary information to the same extent as the laws of the United States, and many companies have encountered significant problems and costs in protecting their proprietary information in these foreign countries. Outside of the United States, patent protection must be sought in individual jurisdictions, further adding to the cost and uncertainty of obtaining adequate patent protection outside of the United States. Accordingly, we cannot predict whether additional patents protecting our technology will issue in the United States or in foreign jurisdictions, or whether any patents that do issue will have claims of adequate scope to provide competitive advantage. Moreover, we cannot predict whether third parties will be able to successfully obtain claims or the breadth of such claims. The allowance of broader claims may increase the incidence and cost of patent interference proceedings, opposition proceedings and/or reexamination proceedings, the risk of infringement litigation and the vulnerability of the claims to challenge. On the other hand, the allowance of narrower claims does not eliminate the potential for adversarial proceedings and may fail to provide a competitive advantage. Our issued patents may not contain claims sufficiently broad to protect us against third parties with similar technologies or products or provide us with any competitive advantage. Moreover, even after they have issued, our patents and any patent for which we have licensed or may license rights may be challenged, narrowed, invalidated or circumvented. If our patents are invalidated or otherwise limited or will expire prior to the commercialization of our product candidates, other companies may be better able to develop products that compete with our products which could adversely affect our competitive business position, business prospects and financial condition. The following are examples of litigation and other adversarial proceedings or disputes that we could become a party to involving our patents or patents licensed to us:

- we or our partners may initiate litigation or other proceedings against third parties to enforce our patent rights;
- third parties may initiate litigation or other proceedings seeking to invalidate patents owned by or licensed to us or to obtain a declaratory judgment that their product or technology does not infringe our patents or patents licensed to us;
- third parties may initiate opposition or reexamination proceedings challenging the validity or scope of our patent rights, requiring us or our partners to participate in such proceedings to defend the validity and scope of our patents;
- there may be a challenge or dispute regarding inventorship or ownership of patents currently identified as being owned by or licensed to us;
- the USPTO may initiate an interference between patents or patent applications owned by or licensed to us and those of our competitors, requiring us or our collaborators to participate in an interference proceeding to determine the priority of invention, which could jeopardize our patent rights; or
third parties may submit ANDAs to the FDA seeking approval to market generic versions of our future approved products prior to expiration of relevant patents owned by or licensed to us, requiring us to defend our patents, including by filing lawsuits alleging patent infringement.

These lawsuits and proceedings would be costly and could affect our results of operations and divert the attention of our managerial and scientific personnel. There is a risk that a court or administrative body would decide that our patents are invalid or not infringed by a third party’s activities or that the scope of certain issued claims must be further limited. An adverse outcome in a litigation or proceeding involving our own patents could limit our ability to assert our patents against these or other competitors and may curtail or preclude our ability to exclude third parties from making and selling similar or competitive products. Any of these occurrences could adversely affect our competitive business position, business prospects and financial condition. An adverse outcome in a dispute involving inventorship or ownership of our patents could, for example, subject us to additional royalty obligations and expand the number of product candidates that are subject to the royalty and other obligations of our license agreement with Tufts.

The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

- others may be able to develop a platform that is similar to, or better than, ours in a way that is not covered by the claims of our patents;
- others may be able to make compounds that are similar to our product candidates but that are not covered by the claims of our patents;
- we might not have been the first to make the inventions covered by our pending patent applications;
- we might not have been the first to file patent applications for these inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies;
- we may be unable to effectively protect our trade secrets;
- any patents that we obtain may not provide us with any competitive advantages or may ultimately be found invalid or unenforceable;
- we may not develop additional proprietary technologies that are patentable; or
- the patents of others may have an adverse effect on our business.

Our commercial success depends significantly on our ability to operate without infringing the patents and other proprietary rights of third parties.

Our and our partners’ success will depend in part on our ability to operate without infringing the proprietary rights of third parties. Other entities may have or obtain patents or proprietary rights that could limit our ability to manufacture, use, sell, offer for sale or import our future approved products or impair our competitive position. Patents that we believe we do not infringe, but that we may ultimately be found to infringe, could be issued to third parties. In addition, to the extent that a third party develops new technology that covers our product candidates, we and our partners may be required to obtain licenses to that technology, which licenses may not be available or may not be available on commercially reasonable terms. Third parties may have or obtain valid and enforceable patents or proprietary rights that could block us from developing product candidates using our technology. Our failure to obtain a license to any technology that we require may materially harm our business, financial condition and results of operations. Moreover, our or our partners’ failure to maintain a license to any technology that we requires may also materially harm our business, financial condition and results of operations. Furthermore, we would be exposed to a threat of litigation.
In the pharmaceutical industry, significant litigation and other proceedings regarding patents, patent applications, trademarks and other intellectual property rights have become commonplace. The types of situations in which we may become a party to such litigation or proceedings include:

- we or our partners may initiate litigation or other proceedings against third parties seeking to invalidate the patents held by those third parties or to obtain a judgment that our products or processes do not infringe those third parties’ patents;
- if our competitors file patent applications that claim technology also claimed by us, we or our collaborators may be required to participate in interference or opposition proceedings to determine the priority of invention, which could jeopardize our patent rights and potentially provide a third party with a dominant patent position;
- if third parties initiate litigation claiming that our processes or products infringe their patent or other intellectual property rights, we and our collaborators will need to defend against such proceedings;
- if third parties initiate litigation claiming that our brand names infringe their trademarks, we and our collaborators will need to defend against such proceedings; and
- if a license to necessary technology is terminated, the licensor may initiate litigation claiming that our processes or products infringe or misappropriate their patent or other intellectual property rights and/or that we breached our obligations under the license agreement, and we and our collaborators would need to defend against such proceedings.

These lawsuits would be costly and could affect our results of operations and divert the attention of our managerial and scientific personnel. There is a risk that a court would decide that we or our partners are infringing the third party’s patents and would order us or our collaborators to stop the activities covered by the patents. In that event, we or our partners may not have a viable alternative to the technology protected by the patent and may need to halt work on the affected product candidate. In addition, there is a risk that a court will order us or our partners to pay the other party damages. An adverse outcome in any litigation or other proceeding could subject us to significant liabilities to third parties and require us to cease using the technology that is at issue or to license the technology from third parties. We may not be able to obtain any required licenses on commercially acceptable terms or at all. Any of these outcomes could have a material adverse effect on our business.

The pharmaceutical and biotechnology industries have produced a significant number of patents, and it may not always be clear to industry participants, including us, which patents cover various types of products or methods of use. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. If we are sued for patent infringement, we would need to demonstrate that our products or methods either do not infringe the patent claims of the relevant patent or that the patent claims are invalid, and we may not be able to do this. Proving invalidity is difficult. For example, in the United States, proving invalidity requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents. Even if we are successful in these proceedings, we may incur substantial costs and divert management’s time and attention in pursuing these proceedings, which could have a material adverse effect on us. If we are unable to avoid infringing the patent rights of others, we may be required to seek a license, defend an infringement action or challenge the validity of the patents in court. Patent litigation is costly and time consuming. We may not have sufficient resources to bring these actions to a successful conclusion. In addition, if we do not obtain a license, do not develop or obtain non-infringing technology, fail to defend an infringement action successfully or have infringed patents declared invalid, we may incur substantial monetary damages, encounter significant delays in bringing our product candidates to market and be precluded from manufacturing or selling our product candidates.

The cost of any patent litigation or other proceeding, even if resolved in our favor, could be substantial. Some of our competitors may be able to sustain the cost of such litigation and proceedings more effectively than
we can because of their substantially greater resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace. Patent litigation and other proceedings may also absorb significant management time.

**If we or our partners fail to comply with our obligations under our intellectual property licenses with third parties, we could lose license rights that are important to our business.**

We are currently party to an intellectual property license agreement with Tufts. The license agreement imposes, and we expect that future license agreements may impose, various diligence, milestone payment, royalty, insurance and other obligations on us. For example, we are required to use our best efforts to develop and commercialize licensed products under the agreement. If we fail to comply with our obligations under the license, Tufts may have the right to terminate the license agreement, in which event we might not be able to market any product that is covered by the agreement, such as omadacycline. Termination of the license agreement or reduction or elimination of our licensed rights may result in us having to negotiate a new or reinstated license with less favorable terms. If Tufts were to terminate its license agreement with us for any reason, our business could be materially harmed. In the event that we are unable to maintain the Tufts license, we may lose the ability to exclude third parties from offering substantially identical products for sale and may even risk the threat of a patent infringement lawsuit from our former licensor based on our continued use of its intellectual property. Either of these events could adversely affect our competitive business position and harm our business.

Under our license agreement with Tufts, we are responsible for prosecution and maintenance of the licensed patents and patent applications, including payment of necessary government fees. In the event that any of the licensed patents or patent applications unintentionally lapse or are otherwise materially diminished in value, our relationship with Tufts could be harmed. This could result in termination of the license, loss of the rights to control prosecution of the licensed patents and patent applications and/or liability to Tufts for any loss.

**If we or our partners are unable to protect the confidentiality of our proprietary information and know-how, the value of our technology and products could be adversely affected.**

In addition to patent protection, we also rely on other proprietary rights, including protection of trade secrets, know-how and confidential and proprietary information. To maintain the confidentiality of trade secrets and proprietary information, we enter into confidentiality agreements with our employees, consultants, collaborators and others upon the commencement of their relationships with us. These agreements require that all confidential information developed by the individual or made known to the individual by us during the course of the individual’s relationship with us be kept confidential and not disclosed to third parties. Our agreements with employees and our personnel policies also provide that any inventions conceived by the individual in the course of rendering services to us shall be our exclusive property. However, we may not obtain these agreements in all circumstances, and individuals with whom we have these agreements may not comply with their terms. In the event of unauthorized use or disclosure of our trade secrets or proprietary information, these agreements, even if obtained, may not provide meaningful protection, particularly for our trade secrets or other confidential information. To the extent that our employees, consultants or contractors use technology or know-how owned by third parties in their work for us, disputes may arise between us and those third parties as to the rights in related inventions. To the extent that an individual who is not obligated to assign rights in intellectual property to us is rightfully an inventor of intellectual property, we may need to obtain an assignment or a license to that intellectual property from that individual. Such assignment or license may not be available on commercially reasonable terms or at all.

Adequate remedies may not exist in the event of unauthorized use or disclosure of our confidential information. The disclosure of our trade secrets would impair our competitive position and may materially harm our business, financial condition and results of operations. Costly and time consuming litigation could be
necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position. In addition, others may independently discover trade secrets and proprietary information, and the existence of our own trade secrets affords no protection against such independent discovery.

As is common in the biotechnology and pharmaceutical industries, we employ individuals who were previously or concurrently employed at research institutions and/or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. We may be subject to claims that these employees, or we, have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers or that patents and applications we have filed to protect inventions of these employees, even those related to one or more of our product candidates, are rightfully owned by their former or concurrent employer. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

**Obtaining and maintaining our patent protection depends on compliance with various procedural, documentary, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.**

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications will be due to the USPTO and various foreign patent offices at various points over the lifetime of the patents and/or applications. We have systems in place to remind us to pay these fees, and we rely on our outside counsel to pay these fees when due. Additionally, the USPTO and various foreign patent offices require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. We employ reputable law firms and other professionals to help us comply, and in many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with rules applicable to the particular jurisdiction. However, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. If such an event were to occur, it could have a material adverse effect on our business. In addition, we are responsible for the payment of patent fees for patent rights that we have licensed from other parties. If any licensor of these patents does not itself elect to make these payments, and we fail to do so, we may be liable to the licensor for any costs and consequences of any resulting loss of patent rights.

**Risks Related to Our Common Stock.**

**The trading price of our common stock is volatile.**

The trading price of our common stock could be subject to significant fluctuations. Market prices for securities of early-stage pharmaceutical, biotechnology and other life sciences companies have historically been particularly volatile. Some of the factors that may cause the trading price of our common stock to fluctuate include:

- our ability to obtain regulatory approvals for omadacycline or other product candidates, and delays or failures to obtain such approvals;
- failure of any of our product candidates, if approved, to achieve commercial success;
- issues in manufacturing our approved products, if any, or product candidates;
- the results of our current and any future clinical trials of our product candidates;
- the entry into, or termination of, key agreements, including key commercial partner agreements;
- the initiation of, material developments in, or conclusion of litigation to enforce or defend any of our intellectual property rights or defend against the intellectual property rights of others;
- announcements by commercial partners or competitors of new commercial products, clinical progress or the lack thereof, significant contracts, commercial relationships or capital commitments;
• adverse publicity relating to the antibiotics and insomnia markets, including with respect to other products and potential products in such markets;
• the introduction of technological innovations or new therapies that compete with our potential products;
• the loss of key employees;
• changes in estimates or recommendations by securities analysts, if any, who cover our common stock;
• general and industry-specific economic conditions that may affect our research and development expenditures;
• changes in the structure of healthcare payment systems; and
• period-to-period fluctuations in our financial results.

Moreover, the stock markets in general have experienced substantial volatility that has often been unrelated to the operating performance of individual companies. These broad market fluctuations may also adversely affect the trading price of our common stock.

In the past, following periods of volatility in the market price of a company’s securities, stockholders have often instituted class action securities litigation against those companies. Such litigation, if instituted, could result in substantial costs and diversion of management attention and resources, which could significantly harm our profitability and reputation.

We do not anticipate that we will pay any cash dividends in the foreseeable future.

On May 14, 2014, we announced that our board of directors had approved a special cash dividend of $15.96 per share. Cash was distributed for this dividend to our stockholders of record at the close of business on May 26, 2014. On October 14, 2014, we announced that our board of directors had approved a special dividend of $8.01 per share and the right to receive, on a pro rata basis, 100% of any royalty income received by us prior to the second anniversary of the closing date of the Merger pursuant to the Purdue Collaboration Agreement. Cash was distributed for this dividend to our stockholders of record at the close of business on October 24, 2014.

Other than future special dividends of any royalty income we may receive pursuant to the Purdue Collaboration Agreement, we expect that we will retain our future earnings to fund the development and growth of our business. As a result, capital appreciation, if any, of our common stock will be your sole source of gain, if any, for the foreseeable future.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us more difficult and may prevent attempts by our stockholders to replace or remove our management.

Provisions in our certificate of incorporation and bylaws may delay or prevent an acquisition or a change in management. These provisions include a classified board of directors, a prohibition on actions by written consent of our stockholders and the ability of the board of directors to issue preferred stock without stockholder approval. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the DGCL, which prohibits stockholders owning in excess of 15% of our voting stock from merging or combining with us. Although we believe these provisions collectively will provide for an opportunity to receive higher bids by requiring potential acquirors to negotiate with our board of directors, they would apply even if the offer may be considered beneficial by some stockholders. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove then current management by making it more difficult for stockholders to replace members of the board of directors, which is responsible for appointing the members of management.

Future sales of shares by existing stockholders could cause the trading price of our common to decline.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market, the trading price of the our common stock could decline. As of February 28, 2015,
approximately 3.5 million shares of common stock are held by our directors, executive officers and other affiliates and are subject to volume limitations under Rule 144 under the Securities Act, and various vesting agreements. In addition, approximately 1.3 million shares of common stock that are subject to outstanding options as of February 28, 2015 will become eligible for sale in the public market to the extent permitted by the provisions of various vesting agreements and Rules 144 and 701 under the Securities Act. If these additional shares are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

Because our recent merger resulted in an ownership change under Section 382 of the Internal Revenue Code for Transcept, Transcept's pre-merger net operating loss carryforwards and certain other tax attributes are subject to limitations. The net operating loss carryforwards and other tax attributes of the former Paratek entity and us may also be subject to limitations as a result of ownership changes.

If a corporation undergoes an “ownership change” within the meaning of Section 382 of the Internal Revenue Code of 1986, as amended (“Section 382”), the corporation’s net operating loss carryforwards and certain other tax attributes arising from before the ownership change are subject to limitations on use after the ownership change. In general, an ownership change occurs if there is a cumulative change in the corporation’s equity ownership by certain stockholders that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws. The Merger resulted in an ownership change for Transcept and, accordingly, Transcept’s net operating loss carryforwards and certain other tax attributes are subject to limitations on their use after the Merger. Old Paratek’s net operating loss carryforwards may also be subject to limitation as a result of prior shifts in equity ownership and/or the Merger. Additional ownership changes in the future could result in additional limitations on Transcept’s, Old Paratek’s and our net operating loss carryforwards, and other tax attributes, which could have a material adverse effect on cash flow and results of operations.

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed alleged trade secrets of former employers.

Certain of our former employees were previously employed at universities or other biotechnology or pharmaceutical companies, including competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that these employees or we ourselves inadvertently or otherwise used or disclosed trade secrets or other proprietary information. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key research personnel or their work product could hamper or prevent us or a collaboration partner’s ability to develop or commercialize certain potential products, which could severely harm the business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

If we fail to continue to meet all applicable NASDAQ Global Market requirements and NASDAQ determines to delist our common stock, the delisting could adversely affect the market liquidity of our common stock and the market price of our common stock could decrease.

Our common stock is listed on The NASDAQ Global Market. In order to maintain our listing, we must meet minimum financial, operating and other requirements, including requirements for a minimum amount of capital, a minimum price per share and active operations. If we are unable to comply with NASDAQ’s listing standards, NASDAQ may delist our common stock. If our common stock is delisted for any reason, it could reduce the value of our common stock and our liquidity. Delisting could also adversely affect our ability to obtain financing for the continuation of our operations or to use our common stock in acquisitions.
If securities or industry analysts do not publish research or reports or publish inaccurate or unfavorable research about us, the trading price and trading volume of our common stock could decline.

The trading market for our common stock is influenced by the research and reports that securities or industry analysts publish about us, our business and our common stock. As of February 28, 2015, we had research coverage by a single securities analyst. If the analyst who covers us downgrades our common stock or publishes inaccurate or unfavorable research regarding us or our business model, technology or stock performance, the trading price of our common stock would likely decline. If one or more of these analysts ceases coverage of us or fails to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause the trading price or trading volume of our common stock to decline. Moreover, the unpredictability of our financial results likely reduces the certainty, and therefore reliability, of the forecasts by securities or industry analysts of our future financial results, adding to the potential volatility of the trading price of our common stock.

Failure to maintain effective internal control over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act of 2002 could have a material adverse effect on the trading price of our common stock.

Section 404 of the Sarbanes-Oxley Act of 2002 and the related rules and regulations of the SEC require an annual management assessment of the effectiveness of our internal control over financial reporting and, depending on our public float, a report by our independent registered public accounting firm attesting to the effectiveness of our internal control over financial reporting at the end of the fiscal year. We will conduct our first annual management assessment of the effectiveness of our internal control over financial reporting as of December 31, 2015. If we fail to maintain the adequacy of our internal control over financial reporting as such standards are modified, supplemented or amended from time to time, we may not be able to ensure that we can conclude on an ongoing basis that we have effective internal control over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act of 2002 and the related rules and regulations of the SEC. If we cannot in the future favorably assess, or, if required, our independent registered public accounting firm is unable to provide an unqualified attestation report on, the effectiveness of our internal control over financial reporting, investor confidence in the reliability of our financial reports may be adversely affected, which could have a material adverse effect on the trading price of our common stock.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our headquarters are located in Boston, Massachusetts, where we occupy approximately 15,088 square feet of office space under a lease that expires in 2016. Beginning in January 2015, we also rent on a monthly basis approximately 600 square feet of office space in King of Prussia, Pennsylvania. We believe that our facilities are sufficient to meet our current needs and that suitable additional space will be available as and when needed.

Item 3. Legal Proceedings

Intermezzo Patent Litigation

In July 2012, we received notifications from three companies, Actavis Elizabeth LLC, or Actavis, Watson Laboratories, Inc.—Florida, or Watson, and Novel Laboratories, Inc., or Novel, in September 2012 from each of Par Pharmaceutical, Inc. and Par Formulations Private Ltd., together, the Par Entities, in February 2013 from Dr. Reddy’s Laboratories, Inc. and Dr. Reddy’s Laboratories, Ltd., together, Dr. Reddy’s, and in July 2013 from TWi Pharmaceuticals, Inc., or Twi, stating that each has filed with the FDA an Abbreviated New Drug Application, or ANDA, that references Intermezzo.

- Actavis & Watson: In the July 2012 notifications, Actavis and Watson indicated that the company’s ANDA includes Paragraph IV patent certifications to our U.S. Patent Nos. 7,658,945 (expiring
April 15, 2027) and 7,682,628 (expiring February 16, 2025) (together, the “‘945 and ‘628 Patents”). On November 28, 2012, Watson withdrew its ANDA, and, as a result of such withdrawal, on December 18, 2012, we and Purdue agreed to voluntarily dismiss the action without prejudice and on December 20, 2012 a court order was entered to such effect. The dismissal of Watson’s ANDA had no effect on the ANDA filed by Actavis, a wholly owned subsidiary of Watson Pharmaceuticals, Inc. On January 24, 2013, Actavis notified us that it has included Paragraph IV patent certifications to our U.S. Patent Nos. 8,242,131 (expiring August 20, 2029) and 8,252,809 (expiring February 16, 2025) (together, the “‘131 and ‘809 Patents”).

- **Novel**: In the July 2012 notifications, Novel indicated that its ANDA includes Paragraph IV patent certifications to the ‘945 and ‘628 Patents. On December 10, 2012, Novel notified us that it has included Paragraph IV patent certifications to the ‘131 and ‘809 Patents.
- **Par Entities**: The ANDAs submitted by the Par Entities each include Paragraph IV patent certifications to the ‘945, ‘628, ‘131 and ‘809 Patents.
- **Dr. Reddy’s**: The ANDA submitted by Dr. Reddy’s includes Paragraph IV patent certifications to the ‘945, ‘628, ‘131 and ‘809 Patents.
- **TWi**: The ANDA submitted by TWi includes Paragraph IV patent certifications to the ‘945, ‘628, ‘131 and ‘809 Patents.

In August 2012, September 2012, and October 2012, respectively, we joined Purdue Pharma in filing actions against Actavis, Watson and certain of their affiliates, Novel, and the Par Entities, in each action alleging patent infringement and seeking injunctive and other relief. In December 2012, we and Purdue Pharma agreed to voluntarily dismiss the action against Watson without prejudice following its withdrawal of its ANDA application on November 28, 2012. On December 20, 2012, a court order was entered to such effect. The dismissal of Watson’s ANDA had no effect on the ANDA filed by Actavis, a wholly owned subsidiary of Watson Pharmaceuticals, Inc. After receiving the supplemental notifications referenced above, we and Purdue Pharma amended our pending complaints against Actavis and Novel to also allege infringement of the ‘131 and ‘809 patents, as well as the ‘628 patent previously asserted against those companies. The actions against the Par Entities alleged infringement of the ‘131 and ‘809 patents. In September 2013, we and Purdue Pharma agreed to voluntarily dismiss the action against one of the two Par Entities, Par Formulations Private Ltd., following that Par Entity’s withdrawal of its ANDA. The action against the other Par Entity, Par Pharmaceutical, Inc., remains pending and continues to allege infringement of the ‘131 and ‘809 patents. On November 24, 2014, the Company joined Purdue in filing a stipulation with Par Pharmaceutical in the Consolidated Action (described below) that (a) the Company, Purdue, and Par agreed to be bound by any final judgment in the Consolidated Action concerning the validity or enforceability of the ‘131 patent, (b) Par agreed to stipulate to infringement of any claim of the ‘131 patent asserted against it Par’s then-pending motion for summary judgment was denied (as it was, on November 25, 2014). Under the stipulation, Paratek, Purdue, and Par agreed to stay the New Jersey action against Par. The Court entered the stipulation on November 25, 2014.

In April 2013, we joined Purdue Pharma in filing an action against Dr. Reddy’s, alleging patent infringement of the ‘628, ‘131, and ‘809 patents, and seeking injunctive and other relief. The New Jersey court has consolidated our actions against each of the above-referenced generic companies into a single action.

In August 2013, we joined Purdue Pharma in filing two actions against TWi. The first action against TWi was filed on August 20, 2013 in the U.S. District Court for the District of New Jersey, and the second action against TWi was filed on August 22, 2013 in the U.S. District Court for the Northern District of Illinois. Each action alleges patent infringement of the ‘131 and ‘809 patents, and seeks injunctive and other relief. On October 17, 2013, TWi filed answers and counterclaims in both New Jersey and Illinois, in both cases seeking declarations of non-infringement and invalidity as to the ‘945, ‘628, ‘131, and ‘809 patents, as well as other relief. On January 13, 2014, the Illinois action against TWi was stayed pending dismissal of the New Jersey action against TWi, or further order of the Illinois court. On January 24, 2014, we and Purdue provided TWi with
a covenant not to sue TWi based on its current ANDA formulation under the ‘945 or ‘628 patents, and on February 28, 2014, we and Purdue filed a motion to dismiss TWi’s counterclaims pertaining to the ‘945 or ‘628 patents based on the tendering of that covenant not to sue. On April 9, 2014, the New Jersey court denied the motion of Paratek and Purdue. On July 22, 2014, the New Jersey court entered a consent decree and partial final judgment of non-infringement in TWi’s favor on the ‘945, ‘628, and ‘809 patents. The action against TWi remains pending as to the ‘131 patent.

On February 26, 2014, the United States District Court for the District of New Jersey, or the District Court, consolidated the action against TWi with the existing Consolidated Action against Actavis, Novel, Par Pharmaceutical, and Dr. Reddy’s. On November 26, 2014, we joined Purdue in filing a stipulation with TWi in the Consolidated Action that (a) Paratek, Purdue, and TWi agreed be bound by any final judgment in the Consolidated Action concerning the infringement, validity, or enforceability of the ‘131 patent, (b) TWi agreed to stipulate to infringement of any claim of the ‘131 patent asserted against it that any defendant in the Consolidated Action was found to infringe and (c) TWi would be deemed not to infringe any such claim that all defendants in the Consolidated Action were found not to infringe. Under the stipulation, Paratek, Purdue, and TWi agreed to stay the New Jersey action against TWi. The Court entered the stipulation on December 1, 2014.

The District Court held a consolidated trial between December 1, 2014 and December 15, 2014 involving Paratek, Purdue, and their patent infringement claims against Actavis, Novel, and Dr. Reddy’s. The District Court then received post-trial briefing and held a February 13, 2015 post-trial hearing. On March 27, 2015, the District Court issued an order and accompanying opinion finding that: (a) the asserted claims of the ‘628 patent, the ‘131 patent, and ‘809 patent are invalid as obvious; (b) Actavis, Novel, and Dr. Reddy’s infringe the ‘131 patent; (c) Novel infringes the ‘628 patent; and (d) Novel and Dr. Reddy’s infringe the ‘809 patent. The District Court’s March 27, 2015 order also directed the parties to submit a proposed form of final judgment consistent with the Court’s findings. We are considering our options in response to the District Court’s findings; however, we do not currently expect that this ruling will adversely affect our financial condition or our business.

As a result of the District Court’s findings, we anticipate that the intangible assets representing Intermezzo product rights will be impaired and the related contingent obligation will be reduced during the first quarter of 2015 in light of an expected decline in Intermezzo sales. See Note 3—Merger Agreement to the notes to our consolidated financial statements for description of the Intermezzo product rights and related contingent obligations. We expect that the patents and patent applications related to the Intermezzo portfolio, if issued, and if the appropriate maintenance, renewal, annuity or other governmental fees are paid, would expire in 2025, excluding any additional terms from patent term adjustments or patent term extensions under the Hatch-Waxman Amendments.

**Patent Term Adjustment Suit**

In January 2013, we and Purdue Pharma filed suit in the Eastern District of Virginia against the USPTO in connection with certain changes to the Leahy-Smith America Invents Act. We and Purdue Pharma are seeking recalculation of the patent term adjustment of the ‘131 Patent. Purdue Pharma has agreed to bear the costs and expenses associated with this litigation. In June of 2013, the judge granted a joint motion to stay the proceedings pending decisions in a number of appeals to the Federal Circuit, including Novartis AG v. Lee 740 F.3d 593 (Fed. Cir. 2014), on which an opinion was issued in January 2014. Since having issued final rules implementing another case filed by Novartis, the USPTO has been working through the civil action cases in order received and issuing remand decisions. Our case is on remand until the USPTO makes its decision on the recalculation of the patent term adjustment.

**Stockholder Suit**

On October 2, 2014, Continuum Capital, on behalf of itself and a putative class of similarly situated stockholders of the Company, filed a lawsuit in the California Superior Court for Contra Costa County, or the Superior Court, against us and our then current board members (only one of whom remains as a director) as well as against the entity then known as Paratek Pharmaceuticals, Inc., or Old Paratek. The complaint alleges that the
then Transcept board members breached fiduciary duties to Transcept stockholders in connection with the Merger announced on June 30, 2014, and that Transcept and its then board of directors failed to make adequate disclosures in soliciting stockholder approval of the Merger, and that Old Paratek aided and abetted the alleged breaches. After expedited discovery, the parties agreed in principal to a settlement and release of all claims by a defined class of pre-merger stockholders of Transcept. In furtherance of the settlement, we supplemented our disclosures regarding the Merger and agreed to pay a negotiated plaintiffs’ attorneys’ fee of $0.6 million. The settlement is subject to the approval of the settlement and fee award, and a dismissal of the action with prejudice each by the Superior Court. The defendants denied any wrongdoing and agreed to settle the action to eliminate the burden and expense of further litigation. On March 4, 2015, the Superior Court entered a preliminary approval order setting May 21, 2015 for the final settlement hearing and directed that notice be provided to the class. In the event the settlement is not consummated, we intend to vigorously defend all claims asserted.

Other Legal Proceedings

From time to time we are involved in legal proceedings arising in the ordinary course of business. We believe there is no other litigation pending that could have, individually or in the aggregate, a material adverse effect on our results of operations or financial condition.

Item 4. Mine Safety Disclosures

None.
PART II

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock is traded on The NASDAQ Global Market under the symbol “PRTK.” Between February 2, 2009 and October 30, 2014, our common stock was traded under the symbol “TSPT.” Prior to February 2, 2009, our common stock was traded under the symbol “NOVC.” On October 30, 2014, in connection with the Merger, we completed a 1-for-12 reverse stock split. The share-related information presented in this Annual Report on Form 10-K has been adjusted to reflect the reverse stock split but not for dividends declared and paid.

The following table sets forth the range of high and low sales prices of our common stock for the quarterly periods indicated as reported by The NASDAQ Global Market.

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<thead>
<tr>
<th>Year ended December 31, 2013</th>
<th>Sales Price</th>
<th></th>
<th>Sales Price</th>
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<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>First quarter</td>
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<td>$54.00</td>
<td></td>
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<td>Second quarter</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Third quarter</td>
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</tr>
<tr>
<td>Fourth quarter</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Year ended December 31, 2014</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First quarter</td>
<td>$41.76</td>
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<td>Second quarter</td>
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<tr>
<td>Third quarter</td>
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<td>$23.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fourth quarter</td>
<td>$39.80</td>
<td>$16.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On October 30, 2014, Transcept completed a business combination with Paratek. Transcept securities listed on The NASDAQ Global Market, trading under the ticker symbol “TSPT,” were suspended for trading as of the close of business on Thursday, October 30, 2014 and trading of Paratek securities on The NASDAQ Global Market under the ticker symbol “PRTK” commenced on Friday, October 31, 2014.

The closing price of our common stock as reported by The NASDAQ Global Market on February 27, 2015 was $29.23 per share. As of February 27, 2015, there were approximately 236 holders of record of our common stock.

Dividend Policy

On May 14, 2014, we announced that our board of directors had approved a special cash dividend of $15.96 per share. This dividend was paid to our stockholders of record at the close of business on May 26, 2014.

On October 14, 2014, we announced that our board of directors had approved a special dividend of $8.01 per share and the right to receive, on a pro rata basis, 100% of any royalty income received by us prior to the second anniversary of the closing date of the Merger pursuant to the Purdue License Agreement. The dividend was paid to our stockholders of record at the close of business on October 24, 2014.

Other than future special dividends of any royalty income we may receive pursuant to the Purdue Collaboration Agreement, we do not anticipate that we will pay any additional cash dividends on our common stock in the foreseeable future.
Table of Contents

Recent Sales of Unregistered Securities
We did not sell any unregistered securities during the fourth quarter of 2014.

Issuer Purchases of Equity Securities
There were no repurchases of our common stock during the fourth quarter of 2014.
Item 6. Selected Financial Data

Prior to October 30, 2014 we were known as Transcept Pharmaceuticals, Inc. On October 30, 2014, we completed the Merger with Paratek Pharmaceuticals, Inc., a private company, or Old Paratek. For accounting purposes, Paratek Pharmaceuticals was deemed to be the acquired entity in the Merger, and the Merger was accounted for as a reverse acquisition. In connection with the Merger, we changed our name to Paratek Pharmaceuticals, Inc. and effected a 1-for-12 reverse stock split of our common stock. Our consolidated financial statements reflect the historical results of Old Paratek prior to the Merger and that of the combined company following the Merger, and do not include the historical results of Transcept Pharmaceuticals, Inc. prior to the completion of the Merger. All share and per share disclosures have been retroactively adjusted to reflect the exchange of shares in the Merger, and the 1-for-12 reverse stock split of our common stock on October 30, 2014.

The following selected financial data has been derived from our audited consolidated financial statements. The information below is not necessarily indicative of the results of future operations and should be read in conjunction with Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and Item 1A, “Risk Factors,” of this Annual Report on Form 10-K, and the consolidated financial statements and related notes thereto included in Item 8 of this Annual Report on Form 10-K, in order to fully understand factors that may affect the comparability of the information presented below. All per share amounts reflect the conversion of Old Paratek common stock to our common stock on October 30, 2014 at the rate of 0.0675 shares of common stock, after giving effect to the 1-for-12 reverse stock split, for each share of Old Paratek common stock outstanding on October 30, 2014.

<table>
<thead>
<tr>
<th>Year Ended December 31,</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>(in thousands, except per share data)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Consolidated Statements of Operations Data:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue</td>
<td>$ 4,342</td>
<td>$ 478</td>
</tr>
<tr>
<td>Research and development</td>
<td>5,014</td>
<td>4,631</td>
</tr>
<tr>
<td>General and administrative</td>
<td>5,848</td>
<td>3,387</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>12,140</td>
<td>8,018</td>
</tr>
<tr>
<td>Loss from operations</td>
<td>(7,798)</td>
<td>(7,540)</td>
</tr>
<tr>
<td>Non-operating (expense) income, net</td>
<td>(10,037)</td>
<td>2,887</td>
</tr>
<tr>
<td>Net loss</td>
<td>(17,835)</td>
<td>(4,653)</td>
</tr>
<tr>
<td>Unaccreted dividends on convertible preferred stock</td>
<td>(1,927)</td>
<td>(6,766)</td>
</tr>
<tr>
<td>Net loss attributable to common stockholders</td>
<td>$(19,762)</td>
<td>$(11,419)</td>
</tr>
<tr>
<td>Net loss per share, basic and diluted</td>
<td>$(7.82)</td>
<td>$(185.13)</td>
</tr>
<tr>
<td>Weighted average common shares outstanding, basic and diluted</td>
<td>2,529</td>
<td>62</td>
</tr>
<tr>
<td><strong>Selected Consolidated Balance Sheet Data:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>$ 95,856</td>
<td>$ 1,212</td>
</tr>
<tr>
<td>Total assets</td>
<td>109,967</td>
<td>1,285</td>
</tr>
<tr>
<td>Working capital (deficiency)</td>
<td>97,588</td>
<td>(33,577)</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>3,741</td>
<td>34,829</td>
</tr>
<tr>
<td>Long-term obligations, less current portion</td>
<td>11,002</td>
<td>224</td>
</tr>
<tr>
<td>Convertible preferred stock</td>
<td>—</td>
<td>80,565</td>
</tr>
<tr>
<td>Common stock and additional paid-in capital</td>
<td>293,090</td>
<td>65,698</td>
</tr>
<tr>
<td>Accumulated deficit</td>
<td>(197,866)</td>
<td>(180,031)</td>
</tr>
<tr>
<td>Total stockholders’ equity (deficit)</td>
<td>95,224</td>
<td>(114,333)</td>
</tr>
</tbody>
</table>
Management’s Discussion and Analysis of Financial Condition and Results of Operations

The following Management’s Discussion and Analysis of Financial Condition and Results of Operations contains certain statements that are not strictly historical and are “forward-looking” statements within the meaning of the Private Securities Litigation Reform Act of 1995 and involve a high degree of risk and uncertainty. Actual results may differ materially from those projected in the forward-looking statements due to other risks and uncertainties. All forward-looking statements included in this section are based on information available to us as of the date hereof, and we assume no obligation to update any such forward-looking statement, except as required by law.

Prior to October 30, 2014, we were known as Transcept Pharmaceuticals, Inc. On October 30, 2014, we completed a business combination, referred to as the Merger, with Paratek Pharmaceuticals, Inc., a private company. For accounting purposes, Transcept Pharmaceuticals was deemed to be the acquired entity in the Merger.

Company Overview

We are a pharmaceutical company focused on the development and commercialization of innovative antibacterial therapeutics based upon tetracycline chemistry. We have used our expertise in microbial biology and tetracycline chemistry to create chemically diverse and biologically distinct small molecules derived from the tetracycline class of molecules. Our two lead antibacterial product candidates are omadacycline and sarecycline.

Omadacycline is ready to advance into Phase 3, the final stage of clinical development. Omadacycline is a new broad-spectrum antibiotic being developed for potential use as a monotherapy for serious community-acquired bacterial infections where antibiotic resistance is of concern. We believe omadacycline will be used in the emergency room, hospital and community care settings. We have designed omadacycline to provide potential advantages over existing antibiotics, including activity against resistant bacteria, broad spectrum antibacterial activity, IV and oral formulations with once-daily dosing, and a favorable safety and tolerability profile. We believe that omadacycline has the potential to become the primary antibiotic choice of physicians for use as a monotherapy for acute bacterial skin and skin structure infections, or ABSSSI, community-acquired bacterial pneumonia, or CABP, urinary tract infections, UTI, and other serious community-acquired bacterial infections, where resistance is of concern.

Our second late-stage, lead antibacterial product candidate, sarecycline, previously known as WC3035, is a novel, once-daily, tetracycline-derived compound designed for use in the treatment of acne and rosacea. We believe that, based upon the data generated to-date, sarecycline possesses favorable anti-inflammatory activity, plus narrow-spectrum antibacterial activity relative to other tetracycline-derived molecules, oral bioavailability, does not cross the blood-brain barrier, and favorable pharmacokinetic, or PK, properties that we believe make it particularly well-suited for the treatment of inflammatory acne in the community setting. We have exclusively licensed rights to sarecycline for the treatment of acne in the United States to Warner Chilcott, now Actavis plc, while retaining rights in the rest of the world. Actavis has informed us that sarecycline entered Phase 3 clinical trials in December 2014 for acne. We have also granted Actavis an exclusive license to develop and commercialize sarecycline for the treatment of rosacea in the United States which converted to a non-exclusive license in December 2014 after Actavis did not exercise its development option with respect to rosacea. There are currently no clinical trials in rosacea underway. In addition, Actavis has announced that upon the closing their merger with Allergan Inc. and, subject to board approval and ratification, the new combined company will be called Allergan.

To date, we have devoted substantially all of our resources to research and development efforts, including conducting clinical trials for our product candidates, protecting our intellectual property and providing general and administrative support for these operations. We have not yet submitted any product candidates for approval by regulatory authorities, and we do not currently have rights to any products that have been approved for
marketing in any territory. We have not generated any revenue from product sales and to date have financed our operations primarily through private placements of our common and convertible preferred stock, note financings, research and development collaborations and, to a lesser extent, through government grants, foundation support, line of credit financings, and equipment lease financings.

We have incurred significant losses since our inception in 1996, and our accumulated deficit at December 31, 2014 was $197.9 million. Our net loss for 2014 and 2013 was $17.8 million and $4.7 million, respectively. Substantially all of our net losses resulted from costs incurred in connection with our research and development programs, general and administrative costs associated with our operations and noncash items primarily associated with our note financings. The net losses and negative cash flows incurred to date, together with expected future losses, have had, and likely will continue to have, an adverse effect on our stockholders’ equity (deficit) and working capital. The amount of future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate offsetting revenue, if any.

We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future. We expect our clinical development expenses to increase in connection with our ongoing activities, particularly as we continue our clinical development of, and seeks regulatory approvals for, our product candidates, prepare for and begin commercialization of any approved products, and add infrastructure and personnel to support our product development efforts.

We do not expect to generate revenue from product sales unless and until we or our partner Actavis successfully complete development and obtain marketing approval for one or more of our product candidates. Accordingly, we anticipate that we will need to raise additional capital, in addition to the cash resources received as part of the Merger, in order to complete the development and commercialization of omadacycline and to advance the development of our other product candidates. Until we can generate a sufficient amount of product revenue to finance our cash requirements, we expect to finance our future cash needs primarily through a combination of equity offerings, debt financings and strategic collaborations. We may be unable to raise capital when needed or on attractive terms, which would force us to delay, limit, reduce or terminate our research and development programs or commercialization efforts. We will need to generate significant revenue to achieve and sustain profitability, and we may never be able to do so.

Financial Operations Overview

Revenue

We have not yet generated any revenue from product sales. All of our revenue to date has been derived from license fees, milestone payments, reimbursements for research, development and manufacturing activities under licenses and collaborations, and grant payments received from the National Institutes of Health, or NIH, and other non-profit organizations. We do not expect to generate revenue from product sales prior to 2018, at the earliest.

Research and Development Expense

Research and development expenses consisted primarily of costs directly incurred by us for the development of our product candidates, which include:

- direct employee-related expenses, including salaries, benefits, travel and stock-based compensation expense of our research and development personnel;
- expenses incurred under agreements with clinical research organizations, or CROs, and investigative sites that will conduct our clinical trials;
- the cost of acquiring and manufacturing preclinical and clinical study materials and developing manufacturing processes;
- allocated facilities, depreciation, and other expenses, which include rent and maintenance of facilities, insurance and other supplies;
- costs associated with preclinical activities and regulatory compliance.
Research and development costs are expensed as incurred. Costs for certain development activities are recognized based on an evaluation of the progress to completion of specific tasks using information and data provided to us by our vendors and our clinical sites.

We cannot determine with certainty the duration and completion costs of the current or future clinical trials of our product candidates or if, when, or to what extent we will generate revenues from the commercialization and sale of any of our product candidates for which we or any partner obtain regulatory approval. We may never succeed in achieving regulatory approval for any of our product candidates. The duration, costs and timing of clinical trials and development of our product candidates will depend on a variety of factors, including:

- the scope, rate of progress, and expense of our ongoing, as well as any additional, clinical trials and other research and development activities;
- future clinical trial results;
- potential changes in government regulation; and
- the timing and receipt of any regulatory approvals.

A change in the outcome of any of these variables with respect to the development of a product candidate could mean a significant change in the costs and timing associated with the development of that therapeutic candidate. For example, if the FDA, or another regulatory authority were to require us to conduct clinical trials beyond those that we currently anticipate will be required for the completion of the clinical development of product candidates, or if we experience significant delays in the enrollment in any clinical trials, we could be required to expend significant additional financial resources and time on the completion of clinical development.

Our research and development activities in 2014 and 2013 were significantly curtailed as we worked within liquidity constraints. In particular, over the years we have decreased:

- external spending related to the development of omadacycline due to the delay in our clinical development program;
- payroll and benefits costs through a reduction in force and other attrition;
- facilities-related spending (as a result of the early termination of our lease on laboratory space); and
- external spending on preclinical product candidates.

However, with available cash resources subsequent to closing of the Merger, we have commenced activities to support the start of our two Phase 3 registration trials of omadacycline, one each for the treatment of ABSSSI and CABP, and a Phase 1b study in UTI and we expect our research and development expenditures to increase significantly in 2015.

We manage certain activities such as clinical trial operations, manufacture of therapeutic candidates, and preclinical animal toxicology studies through third-party CROs. The only costs we track by each product candidate are external costs such as services provided to us by CROs, manufacturing of preclinical and clinical drug product, and other outsourced research and development expenses. We do not assign or allocate to individual development programs internal costs such as salaries and benefits, facilities costs, lab supplies and the costs of preclinical research and studies. Our external research and development expenses for omadacycline, sarecycline, and other projects during 2014 and 2013, are as follows:

<table>
<thead>
<tr>
<th></th>
<th>Year Ended December 31, 2014</th>
<th>Year Ended December 31, 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omadacycline</td>
<td>$1,834</td>
<td>$144</td>
</tr>
<tr>
<td>Sarecycline</td>
<td>—</td>
<td>6</td>
</tr>
<tr>
<td>Other external research</td>
<td>24</td>
<td>—</td>
</tr>
<tr>
<td>Total external costs</td>
<td>1,858</td>
<td>150</td>
</tr>
<tr>
<td>Other research and development costs</td>
<td>3,156</td>
<td>4,481</td>
</tr>
<tr>
<td>Total</td>
<td>$5,014</td>
<td>$4,631</td>
</tr>
</tbody>
</table>

75
General and Administrative Expense

General and administrative expense consists primarily of salaries and other related costs for personnel, including benefits, and stock-based compensation in our executive, legal, patent-related, finance, business development, information technology, general operations and human resources departments.

Our general and administrative activities in 2014 and 2013 were deliberately reduced given restrained development activities and our limited financial resources. We expect, however, that our general and administrative expenses will increase in 2015 as a result of expanded infrastructure, increased payroll, consulting, legal, accounting and investor relations expenses associated with being a public company and costs incurred to seek and establish collaborations with respect to our product candidates.

Results of Operations

Revenue

<table>
<thead>
<tr>
<th>Research and development collaboration</th>
<th>Year Ended December 31,</th>
<th>2014 Compared to 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014</td>
<td>2013</td>
</tr>
<tr>
<td></td>
<td>$4,342</td>
<td>$478</td>
</tr>
</tbody>
</table>

Research and development collaboration revenue in 2014 principally relates to a $4.0 million milestone payment from Actavis for commencement of Phase 3 clinical trials of sarecycline and recognition of $0.3 million in deferred revenue upon the termination of a collaborative research, development and commercialization agreement with a leading global animal health provider. Revenue in 2013 principally relates to research and development revenue earned under various collaborations. For 2014 and 2013, revenue from Actavis represented 92% and 32% of our research and development revenue, respectively.

Research and Development Expense

<table>
<thead>
<tr>
<th>Research and development</th>
<th>Year Ended December 31,</th>
<th>2014 Compared to 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014</td>
<td>2013</td>
</tr>
<tr>
<td></td>
<td>$5,014</td>
<td>$4,631</td>
</tr>
</tbody>
</table>

The increase in research and development expense in 2014 from 2013 principally relates to an increase in compensation, recruiting and other personnel-related costs and preparation for our planned Phase 3 clinical trials of omadacycline.

General and Administrative Expense

<table>
<thead>
<tr>
<th>General and administrative</th>
<th>Year Ended December 31,</th>
<th>2014 Compared to 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014</td>
<td>2013</td>
</tr>
<tr>
<td>General and administrative</td>
<td>$5,848</td>
<td>$3,387</td>
</tr>
<tr>
<td>Merger-related costs</td>
<td>1,278</td>
<td>—</td>
</tr>
<tr>
<td>Total</td>
<td>$7,126</td>
<td>$3,387</td>
</tr>
</tbody>
</table>

The increase in general and administrative expense in 2014 from 2013 principally relates to a $1.5 million increase in professional and consulting services (e.g., legal, accounting, and audit), a $0.8 million increase in compensation, recruiting and other personnel-related costs, and a $0.3 million increase in insurance premiums associated with being a public company. During 2014 we also incurred direct merger-related third-party costs of $1.3 million.
Other Income and Expense

<table>
<thead>
<tr>
<th>Other income and expense:</th>
<th>Year Ended December 31,</th>
<th>2014</th>
<th>2013</th>
<th>$ Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest expense, net</td>
<td>$ (718)</td>
<td>$ (294)</td>
<td>$ (424)</td>
<td>$ (424)</td>
<td>144%</td>
</tr>
<tr>
<td>Loss on exchange of non-convertible notes for common stock</td>
<td>(9,020)</td>
<td>—</td>
<td>(9,020)</td>
<td>—</td>
<td>nm</td>
</tr>
<tr>
<td>(Loss) gain on mark-to-market of notes and warrants</td>
<td>(120)</td>
<td>8,051</td>
<td>(8,171)</td>
<td>(9,020)</td>
<td>101%</td>
</tr>
<tr>
<td>Loss on issuances of notes and associated equity</td>
<td>—</td>
<td>4,988</td>
<td>4,988</td>
<td>—</td>
<td>nm</td>
</tr>
<tr>
<td>Other (losses) and gains, net</td>
<td>(179)</td>
<td>118</td>
<td>(297)</td>
<td>(817)</td>
<td>252%</td>
</tr>
<tr>
<td>Total</td>
<td>$(10,037)</td>
<td>$ 2,887</td>
<td>$(12,924)</td>
<td>—</td>
<td>nm</td>
</tr>
</tbody>
</table>

Interest expense, net

Interest expense is principally non-cash interest accruing on our convertible and non-convertible notes outstanding during 2014 and 2013, as well as on an outstanding obligation to Novartis. In connection with the Merger; however, the notes were all exchanged for common stock and interest will no longer accrue on them. Our obligation to Novartis was also renegotiated in June 2014 and interest no longer accrues on it.

(Losses) and Gains Associated with Notes and Warrants

In 2014 and 2013, we engaged in several fundraising and re-capitalization transactions which gave rise to substantial non-operating gains and losses. With the completion of the October 2014 re-capitalization in connection with the Merger we do not expect these non-cash gains and losses to continue.

During 2014, we recognized a $9.0 million non-cash loss on the exchange of non-convertible notes for common stock in connection with the Merger and October 2014 recapitalization transactions.

During 2013, we recorded a gain of $8.0 million related to the change in fair value of the convertible notes, and we recorded losses of $2.0 million upon the issuance of notes issued in 2013 and $2.9 million upon the issuance of equity associated with the notes issued in 2013.

Liquidity and Capital Resources

Prior to the Merger and recapitalization in October 2014 we were subject to significant liquidity constraints. During 2014 and 2013 we significantly curtailed our research and development and other operating activities as we worked within financial constraints. We have financed our operations primarily through private placements of convertible preferred stock, note financings, research and development collaborations and, to a lesser extent, through government grants, foundation support, lines of credit and equipment lease financing.

As of December 31, 2014, we had cash of $95.9 million. We are working to initiate a pivotal registration program, including two Phase 3 registration trials of omadacycline, one each for the treatment of CABP and ABSSSI in 2015.

The following table summarizes our cash provided by and (used in) operating, investing and financing activities (in thousands):

<table>
<thead>
<tr>
<th>Year Ended December 31</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net cash used in operating activities</td>
<td>$(18,533)</td>
<td>$(6,359)</td>
</tr>
<tr>
<td>Net cash provided by investing activities</td>
<td>13,667</td>
<td>396</td>
</tr>
<tr>
<td>Net cash provided by financing activities</td>
<td>99,510</td>
<td>6,159</td>
</tr>
</tbody>
</table>
Operating Activities

Cash used in operating activities for 2014 of $18.5 million was primarily the result of our $17.8 million net loss less $10.7 million of non-cash items (principally comprised of a loss on exchange of non-convertible notes for common stock), and $11.4 million net use of working capital primarily in our payment of net liabilities. Our $18.5 million use of cash in operating activities for 2014 compares to $6.4 million of cash used in operating activities in 2013. During 2014 and 2013, we significantly curtailed our research and development and other operating activities as we worked within financial constraints.

Investing Activities

Net cash provided by investing activities for 2014 is primarily the result of the net cash acquired in the October 2014 Merger. Other investing activities in 2014 and 2013 include purchases and sales of equipment and a security deposit associated with an operating lease.

Financing Activities

Net cash provided by financing activities for 2014 is primarily comprised of the following:

• $89.8 million from the October 2014 issuance of 8,068,766 shares of common stock concurrent with the Merger with Transcept and other re-capitalization activities;
• $5.1 million from a bridge loan from Transcept over the course of the third quarter of 2014 in advance of the Merger; and
• $5.5 million from the issuance of senior secured, non-convertible promissory notes in March 2014.

The $99.5 million net cash provided in 2014 compares to $6.2 million in 2013. Cash provided by financing activities during 2013 was principally from the issuance of $4.8 million in convertible notes.

Future Funding Requirements

We have not generated any revenue from product sales. We do not know when, if ever, we will generate any revenue from product sales. We do not expect to generate any revenue from product sales unless and until we or our partner Actavis obtain regulatory approval of and commercialize omadacycline, sarecycline or any of our other product candidates. At the same time, we expect our expenses to increase in connection with ongoing development activities, particularly as we continue the research, development and clinical trials of, and seek regulatory approval for, our product candidates. We also expect to incur additional costs associated with operating as a public company. In addition, subject to obtaining regulatory approval of any of our product candidates, we anticipate that we will need substantial additional funding in connection with our continuing operations to support commercial activities associated with our lead product candidate, omadacycline.

We have not completed development of any product candidates. We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future. We anticipate that our expenses will increase substantially as we:

• initiate and conduct our Phase 3 registration trials of omadacycline;
• seek regulatory approvals for any of our product candidates that successfully complete registration trials;
• establish a sales, marketing and distribution infrastructure and increases to our manufacturing capabilities to commercialize any products for which we may obtain regulatory approval; and
• add operational, financial and management information systems and personnel, including personnel to support our product development and planned commercialization efforts.
Based upon our current operating plan, we anticipate that our cash and milestone payments from our license agreement with Actavis will enable us to fund our operating expenses and capital expenditure requirements through the unblinding of the top line results of the Phase 3 ABSSSI clinical trial, which we currently expect to occur in the third quarter of 2016. We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates, and the extent to which we enter into collaborations with third parties to participate in the development and commercialization of our product candidates, we are unable to estimate the amounts of increased capital outlays and operating expenditures associated with our current and anticipated clinical trials. Our future capital requirements will depend on many factors, including:

- the progress of clinical development of omadacycline;
- the number and characteristics of other product candidates that we pursue;
- the scope, progress, timing, cost and results of research, preclinical development and clinical trials;
- the costs, timing and outcome of seeking and obtaining FDA and non-U.S. regulatory approvals;
- the costs associated with manufacturing and establishing sales, marketing and distribution capabilities;
- our ability to maintain, expand and defend the scope of our intellectual property portfolio, including the amount and timing of any payments we may be required to make in connection with the licensing, filing, defense and enforcement of any patents or other intellectual property rights;
- our need and ability to hire additional management, scientific and medical personnel;
- the effect of competing products that may limit market penetration of our product candidates;
- our need to implement additional internal systems and infrastructure, including financial and reporting systems; and
- the economic and other terms, timing and success of our existing licensing arrangements and any collaboration, licensing or other arrangements into which we may enter in the future, including the timing of receipt of any milestone or royalty payments under these arrangements.

Until we can generate a sufficient amount of product revenue to finance our cash requirements, we expect to finance our future cash needs primarily through a combination of equity offerings, debt financings, strategic collaborations and grant funding. We do not have any committed external sources of funds other than our collaboration with Actavis, which is terminable by Actavis upon prior written notice. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect stockholders’ rights. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

**Off-Balance Sheet Arrangements**

During 2013 and 2014 we did not engage in any off-balance sheet financing activities, including the use of structured finance, special purpose entities or variable interest entities.
Critical Accounting Policies and Significant Judgments and Estimates

Our management’s discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles, or U.S. GAAP. The preparation of our consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, as well as the reported revenue and expenses during the reporting periods. We evaluate our estimates and judgments on an ongoing basis. Estimates relate to aspects of our revenue recognition, accrued expenses, tax valuation reserves, useful lives and carrying values of our long-lived tangible and intangible assets, and, historically, fair value of our common stock as a private company. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Our actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are more fully described in Note 2 to the consolidated financial statements included in Item 8 of this Annual Report on Form 10-K, we believe that the following accounting policies are the most critical to assist stockholders and investors reading the consolidated financial statements in fully understanding and evaluating our financial condition and results of operations.

Revenue Recognition

We enter into product development agreements with collaborators for the research and development of therapeutic products. The terms of these agreements may include nonrefundable signing and licensing fees, funding for research, development and manufacturing, milestone payments, and royalties on any product sales derived from collaborations. We assess these multiple elements in accordance with FASB ASC 605 Revenue Recognition, in order to determine whether particular components of the arrangement represent separate units of accounting.

In January 2011, we adopted authoritative guidance on revenue recognition for multiple element arrangements. This guidance, which applies to multiple element arrangements entered into or materially modified on or after January 1, 2011, amends the criteria for separating and allocating consideration in a multiple element arrangement by modifying the fair value requirements for revenue recognition and eliminating the use of the residual method. The fair value of deliverables under the arrangement may be derived using a best estimate of selling price if vendor-specific objective evidence and third-party evidence are not available. Deliverables under the arrangement will be separate units of accounting provided that a delivered item has value to the customer on a stand-alone basis and if the arrangement does not include a general right of return relative to the delivered item and delivery or performance of the undelivered item is considered probable and substantially in the control of the vendor.

We recognized upfront license payments as revenue upon delivery of the license only if the license has stand-alone value and the fair value of the undelivered performance obligations can be determined. If the fair value of the undelivered performance obligations could be determined, such obligations are accounted for separately as the obligations are fulfilled. If the license is considered to either not have stand-alone value or have stand-alone value but the fair value of any of the undelivered performance obligations cannot be determined, the arrangement is accounted for as a single unit of accounting, and the license payments and payments for performance obligations are recognized as revenue over the estimated period of when the performance obligations will be performed.

Whenever we determined that an arrangement should be accounted for as a single unit of accounting, we determined the period over which the performance obligations will be performed and revenue will be recognized. If we could not reasonably estimate the timing and the level of effort to complete our performance obligations
under the arrangement, then we recognized revenue under the arrangement on a straight-line basis over the period that we expected to complete our performance obligations, which was reassessed at each subsequent reporting period.

Our collaboration agreements also include additional payments upon the achievement of performance-based milestones. As milestones are achieved, a portion of the milestone payment, equal to the percentage of the total time that we have performed the performance obligations to date over the total estimated time to complete the performance obligations, multiplied by the amount of the milestone payment, is recognized as revenue upon achievement of such milestone. The remaining portion of the milestone will be recognized over the remaining performance period. If we have no future obligations under the collaboration agreement, the milestone payments are recognized as revenue in the period the milestone is achieved. Milestones that are tied to regulatory approval are not considered probable of being achieved until such approval is received. Milestones tied to counterparty performance are not included in our revenue model until the performance conditions are met.

To date, we have not received any royalty payments or recognized any royalty revenue. We will recognize royalty revenue upon the sale of the relevant products, provided we have no remaining performance obligations under the arrangement.

We also adopted guidance that permits the recognition of revenue contingent upon the achievement of a milestone in its entirety, in the period in which the milestone is achieved, only if the milestone meets certain criteria and is considered to be substantive. As such, we plan to recognize revenue in the period in which the milestone is achieved, only if the milestone is considered to be substantive based on the following criteria:

a. The milestone is commensurate with either of the following:
   - The vendor’s performance to achieve the milestone.
   - The enhancement of the value of the delivered item or items as a result of a specific outcome resulting from the vendor’s performance to achieve the milestone.

b. The milestone relates solely to past performance.

c. The milestone is reasonable relative to all of the deliverables and payment terms (including other potential milestone consideration) within the arrangement.

We did not enter into any significant multiple element arrangements or materially modify any of our other existing multiple element arrangements during the years ended December 31, 2014 or 2013.

We record deferred revenue when payments are received in advance of the culmination of the earnings process. This revenue is recognized in future periods when the applicable revenue recognition criteria have been met.

**Accrued Expenses**

As part of the process of preparing our consolidated financial statements, we are required to estimate our accrued expenses. This process involves reviewing open contracts and purchase orders, communicating with our personnel to identify services that have been performed for us and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of the actual cost. The majority of our service providers invoice us periodically in arrears for services performed or when contractual milestones are met. We make estimates of our accrued expenses as of each balance sheet date in our consolidated financial statements based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. Examples of estimated expenses include fees paid to:

- clinical research organizations, or CROs, in connection with clinical trials;
- contract manufacturing organizations, or CMOs, with respect to clinical material supply;
vendors in connection with preclinical development and operational activities; and

legal and other professional service providers.

We base our expenses on our estimates of the services received and efforts expended pursuant to contractual arrangements with CROs, professional service firms and other vendors. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. There may be instances in which payments made to our vendors will exceed the level of services provided and result in a prepayment of expense. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual or prepaid accordingly. Although we do not expect our estimates to be materially different from amounts actually incurred, if our estimates of the status and timing of services performed differs from the actual status and timing of services performed we may report amounts that are too high or too low in any particular period. To date, there have been no material differences from our estimates to the amount actually incurred.

Research and Development Expenses

We charge costs of our research and development to expense as incurred. Research and development expenses consist of the costs incurred in performing research and development activities, including personnel-related costs, stock-based compensation, facilities, research-related overhead, clinical trial costs, contracted services, manufacturing, license fees and other external costs. We account for nonrefundable advance payments for goods and services that will be used in future research and development activities as expenses when the service has been performed or when the goods have been received rather than when the payment is made.

Income Taxes

We account for income taxes under the asset and liability method. Under this method, deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted rates in effect for the year in which these temporary differences are expected to be recovered or settled. Valuation allowances are provided if, based on the weight of available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

We provide reserves for potential payments of tax to various tax authorities related to uncertain tax positions and other issues. Reserves are based on a determination of whether and how much of a tax benefit taken by us in our tax filing is more likely than not to be realized following resolution of any potential contingencies present related to the tax benefit. Potential interest and penalties associated with such uncertain tax positions are recorded as components of income tax expense. To date, we have not taken any uncertain tax positions or recorded any reserves, interest or penalties.

Valuation of Goodwill and Other Long-Lived Intangible Assets

Our finite-lived intangible and fixed assets are stated at cost less accumulated amortization and depreciation. We calculate amortization and depreciation expenses by the straight-line method using estimated useful lives of the related assets. We review finite-lived assets for impairment whenever events or changes in circumstances occur that indicate that the carrying amount of an asset (or asset group) may not be recoverable. Our impairment review is based on an estimate of the undiscounted cash flows at the lowest level for which identifiable cash flows exist and impairment occurs when the book value of the asset exceeds the estimated future undiscounted cash flows generated by the asset. When an impairment is indicated, a charge is recorded for the difference between the book value of the asset and its fair value. Depending on the asset, estimated fair value may be determined either by use of a discounted cash flow model, or by reference to estimated selling values of assets in a similar condition.
As to finite-lived assets, we have noted no significant events or changes in circumstances indicating the carrying value of the assets may not be recoverable. As such, no follow-on detail reviews or tests have been conducted, and no impairment charges have been recorded nor changes to original estimates of useful lives made.

Goodwill impairment occurs when the carrying amount of a reporting unit’s goodwill exceeds its implied fair value. We would then record an impairment charge being the difference between the carrying amount and the implied fair value of the reporting unit’s goodwill. We test for goodwill impairment annually, on October 1, unless there are indications during an interim period that these assets are more likely than not to have become impaired.

**Valuation of Financial Instruments—Derivative Liability**

In accordance with FASB ASC Topic 815, *Accounting for Derivative Instruments and Hedging Activities*, we accounted for our derivative liability associated with our Convertible Notes based on estimated fair values at the time of the transaction. The difference between the fair value of the derivative liability and the proceeds received was recorded as other expense at the closing. At each reporting period, any change in fair value of the incremental value of the derivative liability was reported as other expense or income. We measured the fair value of the derivative liability based upon a contemporaneous valuation and utilized a probability-weighted discounted cash flow methodology.

**Stock-Based Compensation**

In accordance with FASB ASC Topic 718, *Compensation—Stock Compensation*, we account for stock-based compensation by measuring and recognizing compensation expense for all stock-based awards made to employees, including stock options, based on the estimated grant date fair values. We allocate compensation expense to reporting periods over each optionee’s requisite service period, which is generally the vesting period. When applicable, we account for these equity instruments based on the fair value of the consideration received or the fair value of the equity instrument issued, whichever is more reliably measurable.

We estimate the fair value of stock-based awards to employees using the Black-Scholes option valuation model. Determining the fair value of stock-based awards requires the use of highly subjective assumptions, including volatility, the calculation of expected term, risk-free interest rate and the fair value of the underlying common stock on the date of grant, among other inputs. The assumptions used in determining the fair value of stock-based awards represent our best estimates, which involve inherent uncertainties and the application of judgment. As a result, if factors change, and different assumptions are used, our level of stock-based compensation could be materially different in the future.

The expected volatility rate that we use to value stock option grants is based on historical volatilities of a peer group of similar companies whose share prices are publicly available. The peer group includes companies in the pharmaceutical and biotechnology industries at a similar stage of development or with a similar clinical focus. Because we do not have a sufficient history to estimate the expected term, we use the average expected life of options based on comparable companies’ estimates. The risk-free interest rate assumption was based on zero coupon U.S. treasury instruments that had terms consistent with the expected term of the stock option grants. The expected dividend yield is based on our expectation of not paying dividends for the foreseeable future.

We recognize compensation expense for only the portion of options that are expected to vest. Accordingly, expected future forfeiture rates of stock options have been estimated based on our historical forfeiture rate, as adjusted for known trends. Forfeitures are estimated at the time of grant. If actual forfeiture rates vary from historical rates and estimates, additional adjustments to compensation expense may be required in future periods.
Common Stock Fair Value

Prior to the Merger with Transcept Pharmaceuticals and becoming a public company, per share estimates of the fair value of Old Paratek common stock represented the determination by its board of directors of the fair value of its common stock as of the date of grant, taking into consideration various objective and subjective factors, including those discussed below. This was principally for the purposes of issuing restricted stock and granting stock options to employees. The per share estimated fair value for stock option grants was computed based on the Black-Scholes option valuation model.

Historically, Old Paratek granted stock options at exercise prices equal to the estimated fair value of the common stock. Prior to the Merger with Transcept, there was not an active market for Old Paratek common stock and the fair value for purposes of determining the exercise price for stock option grants was determined by its board of directors, with the assistance and upon the recommendation of management, in good faith based on a number of objective and subjective factors including:

- the prices of Old Paratek convertible preferred stock sold to or exchanged between outside investors in arm’s length transactions, and the rights, preferences and privileges of the convertible preferred stock as compared to those of our common stock, including the liquidation preferences of the convertible preferred stock;
- results of operations, financial position and the status of research and development efforts, including clinical trial data for various compounds under development;
- the composition of, and changes to, the management team and board of directors;
- the likelihood of achieving a liquidity event for the holders of common stock and stock options, such as an initial public offering, given prevailing market conditions, or a strategic merger or sale of Old Paratek;
- the lack of liquidity of its common stock as a private company;
- the material risks related to the business;
- achievement of enterprise milestones, including results of clinical trials and entering into or terminating collaboration and license agreements;
- the market performance of publicly traded companies in the life sciences and biotechnology sectors, and recently completed mergers and acquisitions of companies comparable to us;
- external market conditions affecting the life sciences and biotechnology industry sectors; and
- contemporaneous valuations prepared in accordance with methodologies outlined in the American Institute of Certified Public Accountants Practice Aid, Valuation of Privately-Held-Company Equity Securities Issued as Compensation.

There were significant judgments and estimates inherent in the determination of these valuations. These judgments and estimates included assumptions regarding its future performance, including the successful completion of its clinical trials and the time to completing an initial public offering or sale, as well as the determination of the appropriate valuation methods at each valuation date. If we had made different assumptions, the valuation could have been different.

Recently Adopted Accounting Standards

In May 2014, the FASB issued ASU 2014-09 Revenue from Contracts with Customers. The amendments in this update create Topic 606, Revenue from Contracts with Customers, and supersede the revenue recognition requirements in Topic 605, Revenue Recognition, including most industry-specific revenue recognition guidance throughout the Industry Topics of the Codification. In addition, the amendments supersede the cost guidance in
Subtopic 605-35, Revenue Recognition—Construction-Type and Production-Type Contracts, and create new Subtopic 340-40, Other Assets and Deferred Costs—Contracts with Customers. In summary, the core principle of Topic 606 is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. We are currently evaluating the impact of this ASU.

In June 2014, the FASB issued ASU 2014-12 Compensation—Stock Compensation. The amendments in this update create Topic 718, Compensation—Stock Compensation. The amendments in this ASU apply to all reporting entities that grant their employees share-based payments in which the terms of the award provide that a performance target that affects vesting could be achieved after the requisite service period. The amendments require that a performance target that affects vesting and that could be achieved after the requisite service period be treated as a performance condition. This ASU is effective for annual periods and interim periods within those annual periods, beginning after December 15, 2015. Early application is permitted. The amendments should be applied prospectively to all share-based payment awards that are granted or modified on or after the effective date, or retrospectively to all awards with performance targets that are outstanding as of the beginning of the earliest annual period presented in the consolidated financial statements and to all new or modified awards thereafter. The adoption of this pronouncement is not expected to have an impact on our financial position or results of operations.

In August 2014, the FASB issues ASU 2014-15 Presentation of Financial Statements-Going Concern. The amendments in this update apply to all reporting entities and require an entity’s management, in connection with preparing financial statements for each annual and interim reporting period, to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the entity’s ability to continue as a going concern within one year after the date that the financial statements are issued (or within one year after the date that the financial statements are available to be issued when applicable). This ASU is effective for annuals period ending after December 15, 2016. Early application is permitted. We are currently evaluating the impact of this ASU.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations as of December 31, 2014 and the effect such obligations are expected to have on our liquidity and cash flow in future years (in thousands):

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Less than 1 year</th>
<th>1 to 3 years</th>
<th>3 to 5 years</th>
<th>More than 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating lease obligations</td>
<td>$1,026</td>
<td>$513</td>
<td>$513</td>
<td>$—</td>
<td>$—</td>
</tr>
<tr>
<td>Licenses</td>
<td>350</td>
<td>25</td>
<td>50</td>
<td>50</td>
<td>225</td>
</tr>
<tr>
<td>Total contractual cash obligations</td>
<td>$1,451</td>
<td>$538</td>
<td>$563</td>
<td>$50</td>
<td>$225</td>
</tr>
</tbody>
</table>

Lease

As of December 31, 2014, we have two years remaining on an operating lease agreement for our corporate office space in Boston, Massachusetts.

Licenses

Under a license agreement with Tufts University, we are required to make aggregate regulatory milestone payments of up to $300,000 associated with the filing of an NDA and approval of its first product candidate, $50,000 of which has been paid. We are also obligated to pay Tufts a minimum royalty each year if we do not sponsor at least $100,000 of research at Tufts in such year. We also agreed to pay Tufts royalties based on gross sales of products, as defined in the agreement, ranging in the low single digits depending on the applicable field.
of use for such product sale. Also, if we enter into a sublicense under the agreement, we agreed to pay Tufts a percentage, ranging from the low-to-mid teens based on the applicable field of use for such product, of the license maintenance fees or sublicense issue fees paid to us by the sublicensee and the lesser of a percentage, ranging from the low teens to the high twenties based on the applicable field of use for such product, of the royalty payments made to us by the sublicensee or the amount of royalty payments that would have been paid by us to Tufts if we had sold the product.

In September 2009, we and Novartis entered into a Collaborative Development, Manufacture and Commercialization License Agreement, or the Novartis Agreement, which provided Novartis with a global, exclusive patent and technology license for the development, manufacturing and marketing of omadacycline. The Novartis Agreement was terminated by Novartis without cause in June 2011 and the termination was effective 60 days later. We and Novartis subsequently entered into a letter agreement in January 2012, or the Novartis Letter Agreement, as amended, pursuant to which we reconciled shared development costs and expenses and granted Novartis a right of first negotiation with respect to commercialization rights of omadacycline following approval of omadacycline from the FDA, EMA or any regulatory agency. This right of negotiation exists only to the extent we had not previously granted such commercialization rights related to omadacycline to another third party as of any such approval. We also agreed to pay Novartis a 0.25% royalty based on annual net sales of our omadacycline products. There are no other payment obligations to Novartis under either the Novartis Agreement or the Novartis Letter Agreement.

Contract Service Providers

In the course of normal business operations, we also have agreements with contract service providers to assist in the performance of research and development, clinical trials, manufacturing and other activities for operating purposes which are cancelable at any time by us, generally upon 30 days prior written notice. These payments are not included in this table of contractual obligations.

We could also enter into additional collaborative research, contract research, manufacturing, supplier and contractor agreements in the future, which may require upfront payments and/or long-term commitments of cash.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Our cash as of December 31, 2014 consisted solely of cash accounts. Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of United States interest rates. However, a sudden change in market interest rates would not be expected to have a material impact on the fair market value of our cash. Accordingly, we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates on our current cash balance. We intend to invest our existing cash into an investment portfolio in 2015 and we intend to develop that portfolio according to our investment policy such that our operating results or cash flows will not be affected to any significant degree by the effect of a sudden change in market interest rates on that investment portfolio.

We contract with contract research organizations and contract manufacturers globally. We may be subject to fluctuations in foreign currency rates in connection with certain of these agreements. We currently do not hedge any such foreign currency exchange rate risk. Transactions denominated in currencies other than U.S. dollars are recorded based on exchange rates at the time such transactions arise. As of December 31, 2014, substantially all of our total liabilities were denominated in U.S. dollars.
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### Item 8. Financial Statements and Supplementary Data

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<td>Consolidated Statements of Operations</td>
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<td>Consolidated Statement of Convertible Preferred Stock and Stockholders' Equity (Deficit)</td>
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<td>Consolidated Statements of Cash Flows</td>
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The Board of Directors and Stockholders
Paratek Pharmaceuticals, Inc.

We have audited the accompanying consolidated balance sheets of Paratek Pharmaceuticals, Inc. as of December 31, 2014 and 2013, and the related consolidated statements of operations, convertible preferred stock and stockholders’ equity (deficit) and cash flows for the years then ended. Paratek Pharmaceuticals, Inc.’s management is responsible for these consolidated financial statements. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Paratek Pharmaceuticals, Inc. as of December 31, 2014 and 2013, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

/s/ CohnReznick LLP

Vienna, Virginia
April 1, 2015

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Paratek Pharmaceuticals, Inc.
Consolidated Balance Sheets
(in thousands, except for share and par value)

<table>
<thead>
<tr>
<th>Year Ended December 31,</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>$95,856</td>
<td>$1,212</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>4,434</td>
<td>—</td>
</tr>
<tr>
<td>Other current assets</td>
<td>1,039</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total current assets</strong></td>
<td>101,329</td>
<td>1,252</td>
</tr>
<tr>
<td>Restricted cash</td>
<td>2,946</td>
<td>—</td>
</tr>
<tr>
<td>Fixed assets, net</td>
<td>49</td>
<td>33</td>
</tr>
<tr>
<td>Intangible assets, net</td>
<td>4,814</td>
<td>—</td>
</tr>
<tr>
<td>Goodwill</td>
<td>829</td>
<td>—</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>$109,967</td>
<td>$1,285</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Liabilities, Convertible Preferred Stock and Stockholders’ Equity (Deficit)</strong></th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts payable</td>
<td>$489</td>
<td>$7,482</td>
</tr>
<tr>
<td>Accrued expenses</td>
<td>3,252</td>
<td>4,783</td>
</tr>
<tr>
<td>Derivative liability</td>
<td>—</td>
<td>21,022</td>
</tr>
<tr>
<td>Prefunding for financing</td>
<td>—</td>
<td>1,351</td>
</tr>
<tr>
<td>Deferred revenue</td>
<td>—</td>
<td>191</td>
</tr>
<tr>
<td><strong>Total current liabilities</strong></td>
<td>3,741</td>
<td>34,829</td>
</tr>
<tr>
<td>Intermezzo reserve</td>
<td>2,850</td>
<td>—</td>
</tr>
<tr>
<td>Contingent obligations</td>
<td>4,560</td>
<td>—</td>
</tr>
<tr>
<td>Deferred revenue</td>
<td>—</td>
<td>151</td>
</tr>
<tr>
<td>Other liabilities</td>
<td>3,592</td>
<td>73</td>
</tr>
<tr>
<td><strong>Total liabilities</strong></td>
<td>14,743</td>
<td>35,053</td>
</tr>
</tbody>
</table>

| Commitments and contingencies (Note 15)                                     |          |          |
| Convertible preferred stock                                                 | —        | 80,565   |

<table>
<thead>
<tr>
<th><strong>Stockholders’ equity (deficit)</strong></th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred stock:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undesignated preferred stock: $0.001 par value; 4,000,000 authorized; no shares issued and outstanding</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Series A Junior participating preferred stock: $0.001 par value; 1,000,000 authorized; no shares issued and outstanding</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Common stock, $0.001 par value, 100,000,000 shares authorized, 14,417,936 and 67,500 issued and outstanding at December 31, 2014 and 2013, respectively</td>
<td>14</td>
<td>—</td>
</tr>
<tr>
<td>Additional paid-in capital</td>
<td>293,076</td>
<td>65,698</td>
</tr>
<tr>
<td>Accumulated deficit</td>
<td>(197,866)</td>
<td>(180,031)</td>
</tr>
<tr>
<td><strong>Total stockholders’ equity (deficit)</strong></td>
<td>95,224</td>
<td>(114,333)</td>
</tr>
<tr>
<td><strong>Total liabilities, convertible preferred stock and stockholders’ equity (deficit)</strong></td>
<td>$109,967</td>
<td>$1,285</td>
</tr>
</tbody>
</table>

*The accompanying notes are an integral part of these consolidated financial statements.*
Paratek Pharmaceuticals, Inc.
Consolidated Statements of Operations
(in thousands, except share and per share amounts)

<table>
<thead>
<tr>
<th>Year Ended December 31,</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
</tr>
<tr>
<td>2013</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research and development collaborations</td>
</tr>
</tbody>
</table>

| Operating expenses:           |
| Research and development     | 5,014   | 4,631 |
| General and administrative    | 5,848   | 3,387 |
| Merger-related costs          | 1,278   | —     |

| Total operating expenses     | 12,140  | 8,018 |

| Loss from operations         | (7,798) | (7,540) |

| Other income and expenses:   |
| Interest expense, net        | (718)   | (294)  |
| Loss on exchange of non-convertible notes for common stock | (9,020) | — |
| (Loss) gain on mark-to-market of notes and warrants | (120) | 8,051 |
| Loss on issuance of convertible notes | — | (2,040) |
| Loss on issuance of equity associated with convertible notes | — | (2,948) |
| Other (losses) and gains, net | (179)   | 118 |

<table>
<thead>
<tr>
<th>Net loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>(17,835)</td>
</tr>
<tr>
<td>(4,653)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unaccreted dividends on convertible preferred stock</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1,927)</td>
</tr>
<tr>
<td>(6,766)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Net loss attributable to common stockholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>(19,762)</td>
</tr>
<tr>
<td>$(11,419)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Net loss per share attributable to common stockholders:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic and diluted net loss per common share</td>
</tr>
<tr>
<td>$ (7.82)</td>
</tr>
<tr>
<td>$(185.13)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weighted average common shares outstanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic and diluted</td>
</tr>
<tr>
<td>2,528,595</td>
</tr>
<tr>
<td>61,680</td>
</tr>
</tbody>
</table>

The accompanying notes are an integral part of these consolidated financial statements.
<table>
<thead>
<tr>
<th></th>
<th>Convertible Preferred Stock</th>
<th>Common Stock</th>
<th>Additional Paid-in Capital</th>
<th>Accumulated Deficit</th>
<th>Total Stockholders' Equity (Deficit)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Balances at December 31, 2012</strong></td>
<td>$ 80,565</td>
<td>52,910 $ —</td>
<td>$ 62,500</td>
<td>$(175,378)</td>
<td>$(112,878)</td>
</tr>
<tr>
<td>Issuance of common stock under stock option plan</td>
<td>—</td>
<td>4 $ —</td>
<td>1 $ —</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Stock-based compensation expense</td>
<td>—</td>
<td>— $ 249</td>
<td>— $ 249</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Issuance of common stock with 2013 Notes</td>
<td>—</td>
<td>14,586 $ —</td>
<td>2,948 $ —</td>
<td>—</td>
<td>2,948</td>
</tr>
<tr>
<td>Net loss</td>
<td>—</td>
<td>— $ —</td>
<td>— $ —</td>
<td>$(4,653)</td>
<td>$(4,653)</td>
</tr>
<tr>
<td><strong>Balances at December 31, 2013</strong></td>
<td>80,565</td>
<td>67,500 $ —</td>
<td>65,698 $(180,031)</td>
<td>$(114,333)</td>
<td></td>
</tr>
<tr>
<td>Issuance of common stock under stock option plan</td>
<td>—</td>
<td>67,500 $ —</td>
<td>290 $ —</td>
<td>—</td>
<td>290</td>
</tr>
<tr>
<td>Issuance of new Series A convertible preferred stock in exchange for previously issued preferred stock and convertible notes</td>
<td>21,140</td>
<td>— $ —</td>
<td>— $ —</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Convertible preferred stock exchanged for common stock</td>
<td>(101,705)</td>
<td>3,249,231 $ 3</td>
<td>101,702 $ —</td>
<td>—</td>
<td>101,705</td>
</tr>
<tr>
<td>Non-convertible note exchanged for common stock</td>
<td>—</td>
<td>1,335,475 $ 1</td>
<td>15,393 $ —</td>
<td>—</td>
<td>15,394</td>
</tr>
<tr>
<td>Warrants for preferred stock exchanged for warrants for common stock</td>
<td>—</td>
<td>— $ 40</td>
<td>— $ 40</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Issuance of common stock in the Merger</td>
<td>—</td>
<td>1,629,464 $ 2</td>
<td>19,784 $ —</td>
<td>—</td>
<td>19,786</td>
</tr>
<tr>
<td>Issuance of common stock, net of expenses</td>
<td>—</td>
<td>8,068,766 $ 8</td>
<td>89,753 $ —</td>
<td>—</td>
<td>89,761</td>
</tr>
<tr>
<td>Stock-based compensation expense</td>
<td>—</td>
<td>— $ 416</td>
<td>— $ 416</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Net loss</td>
<td>—</td>
<td>— $ —</td>
<td>— $ —</td>
<td>$(17,835)</td>
<td>$(17,835)</td>
</tr>
<tr>
<td><strong>Balances at December 31, 2014</strong></td>
<td>$ —</td>
<td>14,417,936 $ 14</td>
<td>$ 293,076 $ (197,866)</td>
<td>$ 95,224</td>
<td></td>
</tr>
</tbody>
</table>

The accompanying notes are an integral part of these consolidated financial statements.
### Paratek Pharmaceuticals, Inc.
#### Consolidated Statements of Cash Flows
(in thousands)

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net loss</strong></td>
<td>$(17,835)</td>
<td>$(4,653)</td>
</tr>
<tr>
<td><strong>Adjustments to reconcile net loss to net cash used in operating activities:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation and amortization</td>
<td>196</td>
<td>98</td>
</tr>
<tr>
<td>Stock-based compensation expense</td>
<td>706</td>
<td>249</td>
</tr>
<tr>
<td>Noncash interest expense</td>
<td>770</td>
<td>297</td>
</tr>
<tr>
<td>Loss on convertible note issuance</td>
<td>—</td>
<td>2,040</td>
</tr>
<tr>
<td>Loss on equity issuance associated with convertible notes</td>
<td>—</td>
<td>2,948</td>
</tr>
<tr>
<td>Loss on exchange of non-convertible notes for common stock</td>
<td>9,020</td>
<td>—</td>
</tr>
<tr>
<td>Loss (gain) on mark-to-market on convertible notes and preferred stock warrants</td>
<td>120</td>
<td>(8,051)</td>
</tr>
<tr>
<td>Other gains, net</td>
<td>(3)</td>
<td>(172)</td>
</tr>
<tr>
<td><strong>Changes in operating assets and liabilities, net of effects of merger</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts receivable and other current assets</td>
<td>(4,764)</td>
<td>203</td>
</tr>
<tr>
<td>Accounts payable and accrued expenses</td>
<td>(6,401)</td>
<td>1,448</td>
</tr>
<tr>
<td>Other liabilities and other assets</td>
<td>—</td>
<td>(575)</td>
</tr>
<tr>
<td>Deferred revenue</td>
<td>(342)</td>
<td>(191)</td>
</tr>
<tr>
<td><strong>Net cash used in operating activities</strong></td>
<td>(18,533)</td>
<td>(6,359)</td>
</tr>
<tr>
<td><strong>Investing activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash acquired in connection with the Merger</td>
<td>13,688</td>
<td>—</td>
</tr>
<tr>
<td>Other investing activities</td>
<td>(21)</td>
<td>396</td>
</tr>
<tr>
<td><strong>Net cash provided by investing activities</strong></td>
<td>13,667</td>
<td>396</td>
</tr>
<tr>
<td><strong>Financing activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proceeds from issuance of common stock, net</td>
<td>89,761</td>
<td>1</td>
</tr>
<tr>
<td>Proceeds from bridge loan—related party</td>
<td>5,100</td>
<td>—</td>
</tr>
<tr>
<td>Proceeds from issuance of non-convertible note</td>
<td>5,480</td>
<td>—</td>
</tr>
<tr>
<td>Proceeds from issuance of convertible note</td>
<td>—</td>
<td>4,806</td>
</tr>
<tr>
<td>(Refund of) prefunding for financing</td>
<td>(831)</td>
<td>1,352</td>
</tr>
<tr>
<td><strong>Net cash provided by financing activities</strong></td>
<td>99,510</td>
<td>6,159</td>
</tr>
<tr>
<td><strong>Net increase in cash</strong></td>
<td>94,644</td>
<td>196</td>
</tr>
<tr>
<td>Cash at beginning of year</td>
<td>1,212</td>
<td>1,016</td>
</tr>
<tr>
<td>Cash at end of year</td>
<td>$ 95,856</td>
<td>$ 1,212</td>
</tr>
</tbody>
</table>

**Supplemental disclosure of noncash financing activities**

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convertible preferred stock exchanged for common stock</td>
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<td>Issuance of new Series A convertible preferred stock in exchange for previously issued preferred stock and convertible notes</td>
<td>$ 21,140</td>
<td>—</td>
</tr>
<tr>
<td>Non-convertible note exchanged for common stock</td>
<td>$ 15,394</td>
<td>—</td>
</tr>
<tr>
<td>Settlement of bridge loan</td>
<td>$ 5,100</td>
<td>—</td>
</tr>
<tr>
<td>Conversion of prefunding to non-convertible note</td>
<td>$ 520</td>
<td>—</td>
</tr>
</tbody>
</table>

*The accompanying notes are an integral part of these consolidated financial statements.*
1. Organization

Paratek Pharmaceuticals, Inc. (the “Company” or “Paratek”) is a Delaware corporation with its corporate office in Boston, Massachusetts and an office in King of Prussia, Pennsylvania. The Company is a pharmaceutical company focused on the development and commercialization of innovative antibacterial therapeutics based upon tetracycline chemistry.

Prior to October 30, 2014, the name of the Company was Transcept Pharmaceuticals, Inc. (“Transcept”). On October 30, 2014, Transcept completed its business combination with Paratek Pharmaceuticals, Inc. (“Old Paratek”) in accordance with the terms of the Agreement and Plan of Merger and Reorganization, dated as of June 30, 2014, by and among Transcept, Tigris Merger Sub, Inc. (“Merger Sub”), Tigris Acquisition Sub, LLC (“Merger LLC”) and Paratek (the “Merger Agreement”), pursuant to which Merger Sub merged with and into Paratek, with Paratek surviving as a wholly-owned subsidiary of Transcept (the “Merger”), followed by the merger of Paratek with and into Merger LLC, with Merger LLC surviving as a wholly-owned subsidiary of Transcept. Also on October 30, 2014, in connection with, and prior to the completion of, the Merger, Transcept effected a 1-for-12 reverse stock split of its common stock (the “Reverse Stock Split”), and immediately following the Merger, Transcept changed its name to “Paratek Pharmaceuticals, Inc.”, and Merger LLC changed its name to “Paratek Pharma, LLC.” Following the completion of the Merger, the business conducted by Paratek Pharmaceuticals Inc. became primarily the business conducted by Paratek, which is a biopharmaceutical company focused on the development and commercialization of innovative antibacterial therapeutics based upon tetracycline chemistry. The Merger, reverse stock split and the name change of Transcept were approved by the stockholders of Transcept at a special meeting of Transcept stockholders held on October 28, 2014. These consolidated financial statements reflect the historical results of Paratek prior to the Merger, and do not include the historical results of Transcept prior to the completion of the Merger. All share and per share disclosures have been retroactively adjusted to reflect the exchange of shares in the Merger, and the 1-for-12 reverse stock split of the common stock on October 30, 2014.

Immediately prior to the Merger, Old Paratek sold 8,068,766 shares of its common stock for an aggregate purchase price of $93.0 million to certain existing Paratek stockholders and certain new investors in Paratek (the “Financing”). Immediately prior to the closing of the Financing, the $6.0 million in aggregate principal amount outstanding under, and all accrued interest on, the 2014 Notes (as defined in Note 9 below) converted into 1,335,632 shares of Old Paratek’s common stock based on a conversion price of $0.778 per share, resulting in a $9.0 million loss on exchange of non-convertible note for common stock recorded to other non-operating expenses in the year ended December 31, 2014. Further, and also immediately prior to the closing of the Financing, each share of Old Paratek’s preferred stock outstanding at that time was converted into shares of Old Paratek’s common stock at a ratio determined in accordance with Paratek’s certificate of incorporation then in effect. The parties to the Financing and to the conversion of the 2014 Notes include officers, employees and directors of Paratek, making these transactions related party in nature.

Under the terms of the Merger Agreement, Transcept issued shares of its common stock to Old Paratek’s stockholders, at an exchange rate of 0.0675 shares of common stock, after taking into account the Reverse Stock Split, in exchange for each share of Old Paratek common stock outstanding immediately prior to the Merger. Transcept also assumed all of the stock options outstanding under the Old Paratek 2014 Equity Incentive Plan, as amended (the “Paratek Plan”), and stock warrants of Old Paratek outstanding immediately prior to the Merger, with such stock options and warrants henceforth representing the right to purchase a number of shares of Transcept common stock equal to 0.0675 multiplied by the number of shares of Old Paratek common stock previously represented by such options and warrants. Transcept also assumed the Paratek Plan.
After consummation of the Merger, the Old Paratek stockholders, warrant holders and option holders owned approximately 89.6% of the fully-diluted common stock of Paratek, with Transcept’s stockholders and optionholders immediately prior to the Merger, whose shares of Paratek common stock (including shares received upon the cancellation of existing options) remain outstanding after the Merger, owning approximately 10.4% of the fully-diluted common stock of Paratek. Under generally accepted accounting principles in the United States, the Merger is treated as a “reverse merger” under the purchase method of accounting. For accounting purposes, Old Paratek is considered to have acquired Transcept.

In 2014, Transcept made bridge loans to Old Paratek in the aggregate principal amount of $5.1 million. On closing of the Merger, the outstanding principal together with accrued interest was credited in determining the proportionate amount of equity in Transcept to be held by the pre-Merger Transcept equity holders and the Old Paratek equity holders.

The Company has devoted substantially all of its resources to its research and development efforts and it has yet to generate significant revenue from product sales. Cash used in operations for the years ended December 31, 2014 and 2013 was $18.5 million and $6.4 million, respectively, and as of December 31, 2014, our accumulated deficit was $197.9 million. As of December 31, 2014 the Company’s cash balance was $95.9 million and, based upon its current operating plan, the Company anticipates that it will be able to fund its operating expenses and capital expenditure requirements through the unblinding of the top line results of the Phase 3 ABSSSI clinical trial, which the Company currently expects to occur in the third quarter of 2016.

2. Summary of Significant Accounting Policies

Basis of Presentation

The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”).

Principles of Consolidation

The accompanying consolidated financial statements include the results of operations of Paratek Pharmaceuticals, Inc. and its wholly-owned subsidiaries, Paratek Pharma, LLC and Transcept Pharma, Inc. All significant intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management of the Company to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reported period. These estimates are based on management’s best knowledge of current events and actions the Company may undertake in the future. Estimates are used in accounting for, among other items, intangible assets, goodwill, contingent liabilities, derivative liabilities, convertible preferred stock warrants, stock-based compensation arrangements, useful lives for depreciation and amortization of long-lived assets and valuation allowances on deferred tax assets. Actual results could differ from those estimates.

Restricted Cash

In accordance with the Merger Agreement, an initial amount of $3.0 million (“Intermezzo Reserve”) has been kept in a separate segregated bank account established at the closing date of the Merger. This account is utilized solely at the direction and in the discretion of the special committee of the Board of Directors (“Special Committee”) or its authorized delegates in connection with the Special Committee’s management of the Intermezzo assets and the potential Intermezzo asset disposition. The balance of the Intermezzo Reserve was $2.9 million as of December 31, 2014.
Concentration of Credit Risk

Financial instruments that subject the Company to credit risk consist primarily of cash. The Company places its cash in an accredited financial institution and this balance is above federally insured amounts. The Company has no off-balance sheet concentrations of credit risk such as foreign currency exchange contracts, option contracts or other hedging arrangements. For the years ended December 31, 2014 and 2013, Actavis represented 92% and 32% of research and development revenue, respectively. At December 31, 2014, account receivable from Actavis represented 90% of accounts receivable.

Fixed Assets

Fixed assets are stated at cost and are depreciated on a straight-line basis over the estimated useful lives of the related assets, which range from three to ten years. Leasehold improvements are depreciated over the shorter of their estimated useful lives or the term of the respective lease on a straight-line basis. Upon sale or retirement, the asset cost and related accumulated depreciation are removed from the respective accounts, and any related gain or loss is reflected in results of operations. Repair and maintenance costs are expensed as incurred.

Intangible Assets

Amortization of intangible assets with finite lives is recognized over estimated useful lives ranging from 3 to 5 years, which the Company believes reasonably represents the time period in which the economic benefits of the intangible assets are consumed or otherwise realized.

The Company evaluates its finite-lived intangible assets periodically and, when there are indications that these assets are more likely than not to have become impaired, will test for impairment. An impairment charge is recorded for the difference between the carrying amount and the fair value of the finite-lived intangible asset. Determining the fair value of a finite-lived intangible is inherently subjective in nature and often involves the use of significant estimates and assumptions based on known facts and circumstances at the time the Company performs the fair value estimation. The use of different assumptions, inputs and judgments or changes in circumstances could materially affect the results of the fair value estimation and could have a significant impact on whether or not an impairment charge is recognized and the magnitude of any such charge.

Goodwill

The Company tests for goodwill impairment annually, on October 1, unless there are indications during an interim period that these assets are more likely than not to have become impaired. The first step of the goodwill impairment test is to compare the fair value of a reporting unit to its carrying amount to determine if there is potential impairment. If the fair value of the reporting unit is less than its carrying value, the second step of the goodwill impairment test is performed to measure the amount of impairment loss.

The second step of the goodwill impairment test compares the implied fair value of a reporting unit’s goodwill with the carrying amount of that goodwill. If the carrying amount of a reporting unit’s goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized in an amount equal to that excess. The implied fair value of goodwill is determined in the same manner as the amount of goodwill recognized in a business combination. That is, the fair value of the reporting unit is allocated to all of the assets and liabilities of that unit (including any unrecognized intangible assets) as if the reporting unit had been acquired in a business combination and the fair value was the purchase price paid to acquire the reporting unit.

Determining the fair value of a reporting unit under the first step of the goodwill impairment test and determining the fair value of individual assets and liabilities of a reporting unit (including unrecognized intangible assets) under the second step of the goodwill impairment test is inherently subjective in nature and often involves the use of significant estimates and assumptions based on known facts and circumstances at the time the Company performs the valuation. The use of different assumptions, inputs and judgments or changes in

95
circumstances could materially affect the results of the valuation and could have a significant impact on whether or not an impairment charge is recognized and the magnitude of any such charge.

Accrued Expenses

The Company’s process of determining accrued expense for a financial period-end involves reviewing open contracts and purchase orders, communicating with personnel to identify services that have been performed for the Company and estimating the level of service performed and the associated cost incurred for the service when the Company has not yet been invoiced or otherwise notified of the actual cost. The majority of the Company’s service providers invoice periodically in arrears for services performed or when contractual milestones are met. The Company estimates accrued expenses at a financial period-end based on facts and circumstances known at that time and may periodically confirm the accuracy of estimates with its service providers and make adjustments if necessary.

Contingent Consideration

Contingent consideration arising from a business combination is included as part of the purchase price and is recognized at fair value as of the acquisition date. Subsequent to the acquisition date, The Company measures contingent consideration arrangements at fair value for each period until the contingency is resolved. These changes in fair value are recognized in our consolidated statements of operations. Changes in fair values reflect new information about the likelihood of the payment of the contingent consideration and the passage of time.

Convertible Preferred Stock

Convertible preferred stock is initially recorded at the proceeds received, net of issuance costs and value allocated to warrants, where applicable.

Convertible Preferred Stock Warrants

The Company accounts for free standing warrants as liabilities at their fair value. The Company’s existing warrants were exercisable into convertible preferred stock that was classified as mezzanine equity on the balance sheet and, as such, the fair value of the warrants was recorded as a liability. The Company measured the fair value at the end of each reporting period and recorded the change to other income (expense). The Company continued to record adjustments to the fair value of the warrants until the closing of the merger transaction on October 30, 2014, when they became warrants to purchase shares of common stock, at which point the warrants were no longer subject to ASC Topic 480. As of October 30, 2014, the then-current aggregate fair value of these warrants ($40), was reclassified from a liability to additional paid-in capital, a component of stockholders’ equity (deficit).

Revenue Recognition

The Company enters into product development agreements with collaborators for the research and development of therapeutic products. The terms of these agreements may include nonrefundable signing and licensing fees, funding for research, development and manufacturing, milestone payments and royalties on any product sales derived from collaborations. The Company assesses these multiple elements in accordance with the Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 605, Revenue Recognition, in order to determine whether particular components of the arrangement represent separate units of accounting.

In January 2011, the Company adopted new authoritative guidance on revenue recognition for multiple element arrangements. This guidance, which applies to multiple element arrangements entered into or materially modified on or after January 1, 2011, amends the criteria for separating and allocating consideration in a multiple
element arrangement by modifying the fair value requirements for revenue recognition and eliminating the use of the residual method. The fair value of deliverables under the arrangement may be derived using a best estimate of selling price if vendor-specific objective evidence and third-party evidence are not available. Deliverables under the arrangement will be separate units of accounting provided that a delivered item has value to the customer on a stand-alone basis, the arrangement does not include a general right of return relative to the delivered item, and delivery or performance of the undelivered item is considered probable and substantially in the control of the vendor.

The Company recognizes upfront license payments as revenue upon delivery of the license only if the license has stand-alone value. If the license does not have stand-alone value, the revenue under the arrangement is recognized as revenue over the estimated period of performance.

Whenever the Company determines that an arrangement should be accounted for as a single unit of accounting, the Company determines the period over which the performance obligations will be performed and revenue will be recognized. If the Company cannot reasonably estimate the timing and the level of effort to complete its performance obligations under the arrangement, then revenue under the arrangement is recognized on a straight-line basis over the period that the Company expects to complete its performance obligations, which is reassessed at each subsequent reporting period.

The Company’s collaboration agreements may include additional payments upon the achievement of performance-based milestones. As milestones are achieved, a portion of the milestone payment, equal to the percentage of the total time that the Company has performed the performance obligations to date over the total estimated time to complete the performance obligations, multiplied by the amount of the milestone payment, is recognized as revenue upon achievement of such milestone. The remaining portion of the milestone will be recognized over the remaining performance period. If the Company has no future obligations under the collaboration agreement, the milestone payments are recognized as revenue in the period the milestone is received. Milestones that are tied to regulatory approval are not considered probable of being achieved until such approval is received. Milestones tied to counterparty performance are not included in the Company’s revenue model until the performance conditions are met.

To date, the Company has not received any royalty payments or recognized any royalty revenue. The Company will recognize royalty revenue upon the sale of the relevant products, provided there are no remaining performance obligations under the arrangement.

The Company also adopted guidance that permits the recognition of revenue contingent upon the achievement of a milestone in its entirety, in the period in which the milestone is achieved, only if the milestone meets certain criteria and is considered to be substantive. As such, the Company plans to recognize revenue in the period in which the milestone is achieved, only if the milestone is considered to be substantive based on the following criteria:

a. The milestone is commensurate with either of the following:
   - The vendor’s performance to achieve the milestone.
   - The enhancement of the value of the delivered item or items as a result of a specific outcome resulting from the vendor’s performance to achieve the milestone.

b. The milestone relates solely to past performance.

c. The milestone is reasonable relative to all of the deliverables and payment terms (including other potential milestone consideration) within the arrangement.

The Company did not enter into any significant multiple element arrangements or materially modify any of its existing multiple element arrangements during the years ended December 31, 2014 and 2013, except for the termination of an existing collaborative research, license and commercialization agreement with a leading global animal health provider and the termination of the SNBL Agreement. For further information, see Note 5.
The Company records deferred revenue when payments are received in advance of the culmination of the earnings process. This revenue is recognized in future periods when the applicable revenue recognition criteria have been met.

Government research grants that provide for payments to the Company for work performed are recognized as revenue when the related expense is incurred. The Company’s government grant payments are nonrefundable and contain no repayment obligations.

**Research and Development Expenses**

Research and development expenses are charged to expense as incurred. Research and development expenses consist of the costs incurred in performing research and development activities, including personnel-related costs, stock-based compensation, facilities, research-related overhead, clinical trial costs, contracted services, manufacturing, license fees and other external costs. The Company accounts for nonrefundable advance payments for goods and services that will be used in future research and development activities as expenses when the service has been performed or when the goods have been received rather than when the payment is made.

**Income Taxes**

The Company accounts for income taxes under the asset and liability method. Under this method, deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted rates in effect for the year in which these temporary differences are expected to be recovered or settled. Valuation allowances are provided if, based on the weight of available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

The Company provides reserves for potential payments of tax to various tax authorities related to uncertain tax positions and other issues. Reserves are based on a determination of whether and how much of a tax benefit taken by the Company in its tax filing is more likely than not to be realized following resolution of any potential contingencies present related to the tax benefit. Potential interest and penalties associated with such uncertain tax positions are recorded as components of income tax expense. To date, the Company has not taken any uncertain tax positions or recorded any reserves, interest or penalties.

**Stock-Based Compensation**

The Company expenses the fair value of employee stock options over the vesting period. Compensation expense is measured using the fair value of the award at the grant date, net of estimated forfeitures. The fair value of each stock-based award is estimated using the Black-Scholes option valuation model and is expensed over the vesting period.

**Other Income (Expense)**

The Company records gains and losses on the change in fair value of convertible preferred stock warrants, the change in fair value of derivative liabilities and other one-time income or expense-related items in other income (expense) on the Company’s consolidated statements of operations.

**Segment and Geographic Information**

Operating segments are defined as components of an enterprise engaging in business activities for which discrete financial information is available and regularly reviewed by the chief operating decision maker in deciding how to allocate resources and in assessing performance. The Company views its operations and manages its business in one operating segment, and the Company operates in only one geographic segment.
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Recent Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the FASB or other standard-setting bodies, which are adopted by the Company as of the specified effective date. Unless otherwise discussed, the Company believes that recently issued standards that are not yet effective will not have a material impact on its financial position or results of operations upon adoption.

In May 2014, the FASB issued ASU 2014-09 Revenue from Contracts with Customers. The amendments in this update create Topic 606, Revenue from Contracts with Customers, and supersede the revenue recognition requirements in Topic 605, Revenue Recognition, including most industry-specific revenue recognition guidance throughout the Industry Topics of the Codification. In addition, the amendments supersede the cost guidance in Subtopic 605-35, Revenue Recognition—Construction-Type and Production-Type Contracts, and create new Subtopic 340-40, Other Assets and Deferred Costs—Contracts with Customers. In summary, the core principle of Topic 606 is that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The Company is currently evaluating the impact of the adoption of this ASU.

In June 2014, the FASB issued ASU 2014-12 Compensation—Stock Compensation. The amendments in this update create Topic 718, Compensation—Stock Compensation. The amendments in this ASU apply to all reporting entities that grant their employees share-based payments in which the terms of the award provide that a performance target that affects vesting could be achieved after the requisite service period. The amendments require that a performance target that affects vesting and that could be achieved after the requisite service period be treated as a performance condition. This ASU is effective for annual periods and interim periods within those annual periods, beginning after December 15, 2015. Early adoption is permitted. The amendments should be applied prospectively to all share-based payment awards that are granted or modified on or after the effective date, or retrospectively to all awards with performance targets that are outstanding as of the beginning of the earliest annual period presented in the consolidated financial statements, and to all new or modified awards thereafter. The adoption of this pronouncement is not expected to have an impact on the Company’s financial position or results of operations.

In August 2014, the FASB issues ASU 2014-15 Presentation of Financial Statements-Going Concern. The amendments in this update apply to all reporting entities and require an entity’s management, in connection with preparing financial statements for each annual and interim reporting period, to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the entity’s ability to continue as a going concern within one year after the date that the financial statements are issued (or within one year after the date that the financial statements are available to be issued when applicable). This ASU is effective for annuals period ending after December 15, 2016. Early application is permitted. The Company is currently evaluating the impact of this ASU.

3. Merger Agreement

As described in Note 1, the Company completed the Merger with Transcept on October 30, 2014 for the principal purposes of utilizing the cash resources held by Transcept to continue the development of the late-stage product candidate held by Paratek and for the access to capital markets afforded in Transcept’s public listing.
Purchase Consideration

Purchase consideration amounted to $27.2 million determined based on the fair value of the net assets exchanged detailed as follows (in thousands):

<table>
<thead>
<tr>
<th>Stock consideration</th>
<th>Purchase Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contingent obligations to former Transcept stockholders with respect to:</td>
<td></td>
</tr>
<tr>
<td>Intermezzo product rights</td>
<td>4,140</td>
</tr>
<tr>
<td>Intermezzo reserve</td>
<td>2,870</td>
</tr>
<tr>
<td>TO-2070 asset</td>
<td>440</td>
</tr>
<tr>
<td>Total purchase consideration</td>
<td>$27,236</td>
</tr>
</tbody>
</table>

Stock consideration in the Merger is determined relative to the publicly traded price of a share of Transcept’s common stock immediately prior to the Merger as adjusted for cash dividends declared by Transcept as part of the Merger. Such dividends also included the right for former Transcept shareholders to receive certain contingent amounts, in the future, consisting of:

(i) one hundred percent of any royalty income received by the Company prior to October 30, 2016, pursuant to the United States License and Collaboration Agreement, dated July 31, 2009, as amended November 1, 2011, by and between Transcept and Purdue Pharmaceutical Products L.P.;

(ii) one hundred percent of any payments received by the Company pursuant to the termination of a License Agreement with Shin Nippon Biomedical Laboratories Ltd., SNBL, which granted the Company an exclusive worldwide license to commercialize SNBL’s proprietary nasal drug delivery technology for development of TO-2070, a proprietary nasal powder drug delivery system;

(iii) ninety percent of any cash proceeds from a sale or disposition of Intermezzo (less all fees and expenses incurred by the Company in connection with such sale or disposition following the closing date); provided such sale or disposition occurs prior to October 30, 2016, and

(iv) the amount, if any, of the $3.0 million Intermezzo reserve deposited at closing which is remaining at October 30, 2016.

The contingent obligations to former Transcept stockholders as described above were recognized at fair value as of the acquisition date and subsequently remeasured as of December 31, 2014. The change in fair value was recognized in our consolidated statements of operations. The fair value of the contingent obligations to former Transcept stockholders was determined using probability-weighted scenario methodologies, employing cash-flow and sale proceeds income approaches with consideration to the potential timing of possible payments to former Transcept stockholders.

Material assumptions used to value contingent obligations to former Transcept stockholders with respect to Intermezzo product right and the associated Intermezzo reserve include:

- Probabilities associated with the various outcomes of the ongoing ANDA litigation and the potential sale of Intermezzo product rights;
- The forecasted Intermezzo product revenues and associated royalties due the Company, as well as the appropriate discount rate given consideration to the market and forecast risk involved; and
- The potential proceeds associated with, and timing of, the sale of the Company’s Intermezzo product rights.
Material assumptions used to value contingent obligations to former Transcept stockholders with respect to the TO-2070 asset include:

- Probabilities associated with SNBL licensing the TO-2070 asset under the SNBL Termination Agreement; and
- Potential proceeds associated with, and timing of, the potential payments in accordance with the SNBL Termination Agreement.

**Allocation of Purchase Consideration**

Purchase consideration was allocated to the net tangible and identifiable intangible assets acquired and the liabilities assumed based on their fair values as of October 30, 2014 detailed as follows (in thousands):

<table>
<thead>
<tr>
<th>Allocation of Purchase Consideration</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>$13,688</td>
</tr>
<tr>
<td>Bridge loan from Transcept to Paratek</td>
<td>5,100</td>
</tr>
<tr>
<td>Restricted cash—Intermezzo reserve</td>
<td>3,000</td>
</tr>
<tr>
<td>Current liabilities, net</td>
<td>(371)</td>
</tr>
<tr>
<td>Intangible assets acquired with respect to:</td>
<td></td>
</tr>
<tr>
<td>Intermezzo product rights</td>
<td>4,550</td>
</tr>
<tr>
<td>TO-2070 asset</td>
<td>440</td>
</tr>
<tr>
<td>Goodwill</td>
<td>829</td>
</tr>
<tr>
<td>Total purchase consideration</td>
<td>$27,236</td>
</tr>
</tbody>
</table>

Fair value of cash and other working capital accounts, including accounts receivable, other current assets, accounts payable and accrued expenses, approximates book value on acquisition. Fair values are based on assumptions concerning the amount and timing of estimated future cash flows and assumed discount rates, reflecting varying degrees of perceived risk.

Given the significant uncertainty concerning the ultimate disposition of both Transcept’s Intermezzo product rights and the TO-2070 asset, the Company has estimated the fair value of the acquired identifiable intangible assets probability-weighted scenario methodologies, employing cash-flow and sale proceeds income approaches with consideration to the potential timing of possible payments to former Transcept stockholders as described above with respect to the associated contingent liabilities.

The intangible asset associated with the Intermezzo product rights is being amortized over an estimated 5-year useful life. Accumulated amortization at December 31, 2014 and amortization expense for the year ended December 31, 2014 each amounted to $0.2 million. The intangible asset associated with the TO-2070 asset is being amortized over an estimated 3-year useful life. Accumulated amortization at December 31, 2014 and amortization expense for the year ended December 31, 2014 each amounted to approximately $24,000.

Goodwill resulting from the allocation of total purchase consideration represents effectively the value of Transcept’s public listing. Goodwill is not expected to be deductible for tax purposes.
Pro forma information

The following unaudited pro forma information presents a summary of the Company’s consolidated results of operations as if the Merger had taken place as of January 1, 2013 (in thousands):

<table>
<thead>
<tr>
<th>Year Ended December 31,</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pro forma combined revenues</td>
<td>$5,304</td>
<td>$(4,596)</td>
</tr>
<tr>
<td>Pro forma combined net loss</td>
<td>$(12,733)</td>
<td>$(33,090)</td>
</tr>
<tr>
<td>Pro forma basic and diluted net loss per share</td>
<td>$(1.02)</td>
<td>$(2.65)</td>
</tr>
</tbody>
</table>

Included in pro forma combined revenues for the year ended December 31, 2013, is negative net revenue consisting of $2.2 million royalty and research and development collaboration revenue offset by $6.8 million advertising expense paid to Purdue Pharma. In December 2012, the Company contributed $10.0 million to Purdue Pharma’s Intermezzo direct-to-consumer advertising campaign. This contribution was recognized as an offset against revenue as the advertising costs were incurred.

4. Net Loss Per Share Available to Common Stockholders

Basic net loss per share available to common stockholders is calculated by dividing the net loss available to common stockholders by the weighted-average number of common shares outstanding during the period, without consideration for common stock equivalents. Diluted net loss per share available to common stockholders is computed by dividing the net loss available to common stockholders by the weighted-average number of common shares outstanding for the period determined using the treasury-stock method or the as if converted method, as applicable. For purposes of this calculation, convertible preferred stock, stock options and convertible preferred stock warrants are considered to be common stock equivalents and are only included in the calculation of diluted net loss per share available to common stockholders when their effect is dilutive.

The following table presents the computation of basic and diluted net loss per share reflecting the effect of the reverse stock split in connection with the Merger (in thousands, except share and per share data):

<table>
<thead>
<tr>
<th>Year Ended December 31,</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numerator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net loss</td>
<td>$17,835</td>
<td>$4,653</td>
</tr>
<tr>
<td>Less: Unaccreted dividends on convertible preferred stock</td>
<td>1,927</td>
<td>6,766</td>
</tr>
<tr>
<td>Net loss attributable to common stockholders</td>
<td>$19,762</td>
<td>$11,419</td>
</tr>
<tr>
<td>Denominator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weighted-average common shares outstanding</td>
<td>2,528,595</td>
<td>61,680</td>
</tr>
<tr>
<td>Net loss per share—basic and diluted</td>
<td>$7.82</td>
<td>$185.13</td>
</tr>
</tbody>
</table>
The following outstanding shares subject to options and warrants to purchase common stock were antidilutive due to a net loss in the years presented and, therefore, were excluded from the dilutive securities computation as of the dates indicated below (in thousands):

<table>
<thead>
<tr>
<th>Shares subject to options to purchase common stock</th>
<th>Year Ended December 31,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014</td>
</tr>
<tr>
<td>Shares subject to warrants to purchase common stock</td>
<td>781,568</td>
</tr>
<tr>
<td>Convertible preferred stock</td>
<td>14,734</td>
</tr>
<tr>
<td>Shares subject to warrants to purchase preferred stock</td>
<td>236,250</td>
</tr>
<tr>
<td>Totals</td>
<td>796,302</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shares subject to options to purchase common stock</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shares subject to warrants to purchase common stock</td>
<td>5,761</td>
</tr>
<tr>
<td>Convertible preferred stock</td>
<td>236,250</td>
</tr>
<tr>
<td>Shares subject to warrants to purchase preferred stock</td>
<td>2,243</td>
</tr>
<tr>
<td>Totals</td>
<td>244,254</td>
</tr>
</tbody>
</table>

(1) The number of shares is based on the maximum number of shares issuable on exercise or conversion of the related securities as of the year end. Such amounts have not been adjusted for the treasury stock method or weighted average outstanding calculations as required if the securities were dilutive.

5. License and Collaboration Agreements

**Actavis**

In July 2007, the Company entered into a collaborative research and license agreement with Actavis, under which the Company granted Actavis an exclusive license to research, develop and commercialize tetracycline products for use in the United States for the treatment of acne and rosacea. Since Actavis did not exercise its development option with respect to the treatment of rosacea prior to initiation of a Phase 3 trial for the product, the license grant to Actavis converted to a non-exclusive license for the treatment of rosacea as of December 2014. Under the terms of the agreement, the Company and Actavis are responsible for, and are obligated to use, commercially reasonable efforts to conduct specified development activities for the treatment of acne and, if requested by Actavis, the Company may conduct certain additional development activities to the extent the Company determines in good faith that the Company has the necessary resources available for such activities. Actavis has agreed to reimburse the Company for costs and expenses, including third-party costs, incurred in conducting any such development activities.

Under the terms of the agreement, Actavis is responsible for and is obligated to use commercially reasonable efforts to develop and commercialize tetracycline compounds that are specified in the agreement for the treatment of acne. Actavis may elect to advance the development of sarecycline for the treatment of rosacea in accordance with the terms of the agreement so the license granted to Actavis was converted to a non-exclusive license for the treatment of rosacea. The Company has agreed during the term of the agreement not to directly or indirectly develop or commercialize any tetracycline compounds in the United States for the treatment of acne and rosacea, and Actavis has agreed during the term of the agreement not to directly or indirectly develop or commercialize any tetracycline compound included as part of the agreement for any use other than as provided in the agreement.

The Company earned an upfront fee in the amount of $4.0 million upon the execution of the agreement, $1.0 million upon filing of an initial new drug application in 2010, and $2.5 million upon initiation of Phase 2 trials in 2012. In December 2014, the Company also earned $4.0 million upon initiation of Phase 3 trials associated with the agreement. In addition, Actavis may be required to pay the Company an aggregate of approximately $17.0 million upon the achievement of specified future regulatory milestones, the next being $5.0 million upon acceptance of an NDA submission. Actavis is also obligated to pay the Company tiered royalties, ranging from the mid-single digits to the low double digits, based on net sales of tetracycline compounds developed under the agreement, with a standard royalty reduction post patent expiration for such product for the remainder of the royalty term. Actavis’ obligation to pay us royalties for each tetracycline compound it commercializes under the agreement expires on the later of the expiration of the last to expire patent that covers the tetracycline compound in the United States and the date on which generic drugs that compete with the tetracycline compound reach a certain threshold market share in the United States.

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Either the Company or Actavis may terminate the agreement for certain specified reasons at any time after Actavis has commenced development of any tetracycline compound, including if Actavis determines that it would not be commercially viable to continue to develop or commercialize the tetracycline compound and/or that it is unlikely to obtain regulatory approval of the tetracycline compound, and, in any case, no backup tetracycline compound is in development or ready to be developed and the parties are unable to agree on an extension of the development program or an alternative course of action. Either the Company or Actavis may terminate the agreement for the other party’s uncured breach of a material term of the agreement on 60 days’ notice (unless the breach relates to a payment term, which requires a 30-day notice) or upon the bankruptcy of the other party that is not discharged within 60 days. Upon the termination of the agreement by Actavis for the Company’s breach, Actavis’ license will continue following the effective date of termination, subject to the payment by Actavis of the applicable milestone and royalty payments specified in the agreement unless our breach was with respect to certain specified obligations, in which event the obligation of Actavis to pay us any further royalty or milestone payments will terminate. Upon the termination of the agreement by us for Actavis’ breach or the voluntary termination of the agreement by Actavis, Actavis’ license under the agreement will terminate.

The Company determined whether the performance obligations under this collaboration could be accounted for separately or as a single unit of accounting. The Company determined that the license, participation on steering committees and research and development services performance obligations during the research period of the CRL Agreement represented a single unit of accounting. As the Company could not reasonably estimate its level of effort, the Company recognized revenue from the upfront payment, milestone payment and research and development services payments using the contingency-adjusted performance model over the expected development period. The development period was completed in June 2010. Under this model, when a milestone was earned or research and development services were rendered, revenue was immediately recognized on a pro-rata basis in the period the milestone was achieved or services were delivered based on the time elapsed from the effective date of the agreement. Thereafter, the remaining portion was recognized on a straight-line basis over the remaining development period. The Company has determined that each potential future clinical, regulatory and commercialization milestone is substantive. In making this determination, pursuant to ASC 605-28-50-2, the Company considered and concluded that each individual milestone: (i) relates solely to the past performance of the intellectual property to achieve the milestone; (ii) is reasonable relative to all of the deliverables and payment terms in the arrangement; and (iii) is commensurate with the enhanced value of the intellectual property as a result of the milestone achievement. As the Company’s obligations under this arrangement have been completed, all future milestones, which are all considered substantive, will be recognized as revenue when achieved.

Also, the Company, at its discretion, may provide manufacturing process development services to Actavis in exchange for full-time equivalent based cost reimbursements. The Company determined that the manufacturing process development services are considered a separate unit of accounting as (i) they are set at the Company’s discretion, (ii) they have stand-alone value, as these services could be performed by third parties, and (iii) the full-time equivalent rate paid for such services rendered is considered fair value. Therefore, the Company recognizes cost reimbursements for manufacturing process development services as revenue as the services are performed.

**Tufts University**

In February 1997, the Company entered into a license agreement with Tufts University, or Tufts, under which the Company acquired an exclusive license to certain patent applications and other intellectual property of Tufts related to the drug resistance field to develop and commercialize products for the treatment or prevention of bacterial or microbial diseases or medical conditions in humans or animals or for agriculture. The Company subsequently entered into nine amendments to that agreement to include patent applications filed after the effective date of the original license agreement, to exclusively license additional technology from Tufts, to expand the field of the agreement to include disinfectant applications, and to change the royalty rate and percentage of sublicense income paid by the Company to Tufts under our sublicense agreements with specified sublicensees. The Company is obligated under the agreement to provide Tufts with annual diligence reports and a business plan and to meet certain other diligence milestones. The Company has the right to grant sublicenses of the licensed rights to third parties, which will be subject to the prior approval of Tufts unless the proposed...
The Company issued Tufts 1,024 shares of the Company’s common stock on the date of execution of the agreement, and the Company may be required to make certain payments of up to $0.3 million to Tufts upon the achievement by products developed under the agreement of specified development and regulatory approval milestones. The Company has already made a payment of $50,000 to Tufts for achieving the first milestone following commencement of the Phase 3 non-registration clinical trial for omadacycline. The Company is also obligated to pay Tufts a minimum royalty payment in the amount of $25,000 per year, if the Company does not sponsor at least $100,000 of research at Tufts in such year. In the past, the Company has opted to satisfy its minimum royalty obligations to Tufts by providing an equivalent amount of sponsored research or receiving a waiver from Tufts with respect to such obligations. The Company expects that it will satisfy its future minimum royalty obligations to Tufts by making an annual royalty payment of $25,000 to Tufts. In addition, the Company is obligated to pay Tufts royalties based on gross sales of products, as defined in the agreement, ranging in the low single digits depending on the applicable field of use for such product sale. If the Company enters into a sublicense under the agreement, the Company will be obligated to pay Tufts a percentage, ranging from the low-to-mid teens based on the applicable field of use for such product, of the license maintenance fees or sublicense issue fees paid to the Company by the sublicensee and the lesser of a percentage, ranging from the low teens to the high twenties based on the applicable field of use for such product, of the royalty payments made to the Company by the sublicensee or the amount of royalty payments that would have been paid by the Company to Tufts if the Company had sold the products.

Unless terminated earlier, the agreement will expire at the same time as the last-to-expire patent in the patent rights licensed to us under the agreement and after any such expiration the Company will continue to have an exclusive, fully-paid-up license to such intellectual property licensed from Tufts. Tufts has the right to terminate the agreement upon 30 days’ notice should the Company fail to make a material payment under the agreement or commit a material breach of the agreement and not cure such failure or breach within such 30 day period, or if, after the Company has started to commercialize a product under the agreement, the Company ceases to carry on its business for a period of 90 consecutive days. The Company has the right to terminate the agreement at any time upon 180 days’ notice. Tufts has the right to convert our exclusive license to a non-exclusive license if the Company does not commercialize a product licensed under the agreement within a specified time period. As of December 31, 2014 and 2013, approximately $48,000 and $73,000, respectively, were included in accounts payable and accrued expenses.

The Company also agreed to pay Tufts royalties based on gross sales of products, as defined in the agreement, ranging in the low single digits depending on the applicable field of use for such product sale. If the Company enters into a sublicense under the agreement, it will be obligated to pay Tufts a percentage, ranging from the low-to-mid teens based on the applicable field of use for such product, of the license maintenance fees or sublicense issue fees paid to the Company by the sublicensee and the lesser of a percentage, ranging from the low teens to the high twenties based on the applicable field of use for such product, of the royalty payments made to the Company by the sublicensee or the amount of royalty payments that would have been paid by us to Tufts if the Company had sold the products.

**Purdue Pharmaceuticals L.P.**

In July 2009, the Company entered into a collaboration agreement with Purdue Pharma, or the Purdue Collaboration Agreement, that grants an exclusive license to Purdue Pharma to commercialize Intermezzo in the United States and pursuant to which:

- Purdue Pharma paid the Company a $25.0 million non-refundable license fee in August 2009;
Purdue Pharma paid the Company a $10.0 million non-refundable intellectual property milestone in December 2011 when the first of two issued formulation patents was listed in the FDA’s Approved Drug Products with Therapeutic Equivalence Evaluations, or Orange Book;

Purdue Pharma paid the Company a $10.0 million non-refundable intellectual property milestone in August 2012 when the first of two issued methods of use patents was listed in the FDA’s Orange Book;

The Company transferred the Intermezzo NDA to Purdue Pharma, and Purdue Pharma is obligated to assume the expense associated with maintaining the NDA and further development of Intermezzo in the United States, including any expense associated with post-approval studies;

Purdue Pharma is obligated to commercialize Intermezzo in the United States at its expense using commercially reasonable efforts;

Purdue Pharma is obligated to pay the Company tiered base royalties on net sales of Intermezzo in the United States ranging from the mid-teens up to the mid-20% level, with each such royalty tiers subject to an increase by a percentage in the low single digits upon a specified anniversary of regulatory approval of Intermezzo. The base royalty is tiered depending upon the achievement of certain fixed net sales thresholds by Purdue Pharma, which net sales levels reset each year for the purpose of calculating the royalty. The royalty tiers are subject to reductions upon generic entry and patent expiration. Purdue Pharma is obligated to pay royalties until the later of 15 years from the date of first commercial sale in the United States or the expiration of patent claims related to Intermezzo; and

Purdue Pharma is obligated to pay the Company up to an additional $70.0 million upon the achievement of certain net sales targets for Intermezzo in the United States.

The Company had an option to co-promote Intermezzo to psychiatrists in the United States and such option was terminated as a result of the Merger.

The Purdue Collaboration Agreement expires on the expiration of Purdue Pharma’s royalty obligations. Purdue Pharma has the right to terminate the Purdue Collaboration Agreement at any time upon advance notice of 180 days. The Purdue Collaboration Agreement is also subject to termination by Purdue Pharma in the event of FDA or governmental action that materially impairs Purdue Pharma’s ability to commercialize Intermezzo or the occurrence of a serious event with respect to the safety of Intermezzo. The Purdue Collaboration Agreement may also be terminated by the Company upon Purdue Pharma commencing an action that challenges the validity of Intermezzo related patents. The Company also has the right to terminate the Purdue Collaboration Agreement immediately if Purdue Pharma is excluded from participation in federal healthcare programs. The Purdue Collaboration Agreement may also be terminated by either party in the event of a material breach by or insolvency of the other party.

Shin Nippon Biomedical Laboratories Ltd.

In September 2013, the Company entered into the SNBL License Agreement with SNBL pursuant to which SNBL granted the Company an exclusive worldwide license to commercialize SNBL’s proprietary nasal drug delivery technology to develop TO-2070. The Company was developing TO-2070 as a treatment for acute
migraine using SNBL’s proprietary nasal powder drug delivery system. Under the SNBL License Agreement, the Company was required to fund all
development and regulatory approval with respect to TO-2070, at our cost. Pursuant to the SNBL License Agreement, the Company paid an upfront
nonrefundable technology license fee of $1.0 million, and the Company was also obligated to pay up to an aggregate of $41.5 million upon the achievement
of certain development, regulatory and sales milestones, and tiered, low double-digit royalties on annual net sales of TO-2070.

In September 2014, the Company and SNBL entered into a Termination Agreement and Release, or the SNBL Termination Agreement, pursuant to
which, among other things, the SNBL License Agreement was terminated and the Company assigned all of its rights, interest and title to the TO-2070 assets
to SNBL in exchange for a portion of certain future net revenue received by SNBL as set forth in the SNBL Termination Agreement, up to an aggregate of
$2.0 million.

Past Collaborations

Novartis

In September 2009, the Company and Novartis International Pharmaceutical Ltd., or Novartis, entered into a Collaborative Development, Manufacture
and Commercialization License Agreement, or the Novartis Agreement, for the co-development and commercialization of omadacycline, which included a
$70 million upfront payment from Novartis to the Company, future development and sales milestone payments and future royalty payments, depending on the
success of omadacycline. Under the agreement, Novartis was to have led development activities for omadacycline, and the Company was to have co-
developed omadacycline and contributed a share of its development expense.

The Novartis Agreement provided that Novartis would bear the majority of all direct development costs incurred in connection with omadacycline and
would assume all responsibility for the manufacturing of omadacycline. The agreement provided Novartis with a global, exclusive patent license for the
development, manufacturing and marketing of omadacycline.

Novartis had the right to terminate the agreement without cause upon providing 60 days’ advance written notice. Novartis provided the Company with
a notice of intent to terminate the agreement on June 29, 2011, and the termination became effective 60 days later. While Novartis terminated the agreement
without cause, Novartis indicated that it elected to terminate the agreement due to the then-existing delays and uncertainties experienced in connection with
the regulatory pathway for approval of omadacycline in two core indications, ABSSSI and CABP.

In January 2012, the Company and Novartis entered into a letter agreement, or the Novartis Letter Agreement, in which the Company reconciled shared
development costs and expenses and granted Novartis a right of first negotiation with respect to commercialization rights of omadacycline following approval
of omadacycline from the FDA, the European Medicines Agency, or EMA, or any regulatory agency, but only to the extent that the Company has not
previously granted such commercialization rights for omadacycline to another third party as of any such approval.

Under the Novartis Agreement, the Company agreed to pay Novartis $2.9 million as reconciliation of development costs and expenses. In June 2014,
the Company amended the Novartis Letter Agreement and Novartis agreed to convert the full amount of development cost share plus any accrued interest into
a 0.25% royalty, to be paid from net sales received by us following the launch of omadacycline and continuing until the later of expiration of the last active
valid patent claim covering such product in the country of sale and 10 years from the date of first commercial sale in such country. There are no other
payment obligations to Novartis under the Novartis Agreement or the Novartis Letter Agreement.

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Global Animal Health Provider

In May 2014, the Company and a leading global animal health provider terminated an existing collaborative research, license and commercialization agreement. The Company has no future obligations under this agreement, and the leading global animal health company retains no rights to the Company’s technology. As a result of this termination, in the year ended December 31, 2014, the Company recognized the remaining $0.3 million of deferred revenue related to the upfront and milestone payments received in 2007 and 2008.

6. Fixed Assets, Net

Fixed assets consist of the following (in thousands):

<table>
<thead>
<tr>
<th></th>
<th>December 31, 2014</th>
<th>December 31, 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory equipment</td>
<td>$ 62</td>
<td>$ 230</td>
</tr>
<tr>
<td>Office equipment</td>
<td>164</td>
<td>170</td>
</tr>
<tr>
<td>Computer equipment</td>
<td>343</td>
<td>343</td>
</tr>
<tr>
<td>Computer software</td>
<td>443</td>
<td>443</td>
</tr>
<tr>
<td>Automobile</td>
<td>—</td>
<td>40</td>
</tr>
<tr>
<td>Leasehold improvements</td>
<td>179</td>
<td>179</td>
</tr>
<tr>
<td><strong>Gross fixed assets</strong></td>
<td><strong>1,191</strong></td>
<td><strong>1,405</strong></td>
</tr>
<tr>
<td>Less: Accumulated depreciation and amortization</td>
<td>(1,142)</td>
<td>(1,372)</td>
</tr>
<tr>
<td><strong>Net fixed assets</strong></td>
<td><strong>$ 49</strong></td>
<td><strong>$ 33</strong></td>
</tr>
</tbody>
</table>

Depreciation and amortization expense for the years ended December 31, 2014 and 2013 was approximately $20,000 and $0.1 million, respectively, which is included in general and administrative and research and development expense on the accompanying consolidated statements of operations.

During 2014, the Company retired fixed assets of $0.3 million with accumulated depreciation of $0.3 million, which resulted in a net gain on retirement of approximately $15,000 due to proceeds received of approximately $15,000. During 2013, the Company retired fixed assets of $2.3 million with accumulated depreciation of $2.3 million, which resulted in a net gain on retirement of $0.2 million due to proceeds received of $0.2 million. These retirements were related to the termination of the Company’s leased laboratory facility and associated auction sales and disposals of equipment.

7. Intangible Assets, Net

Intangible assets consist of the following (in thousands):

<table>
<thead>
<tr>
<th></th>
<th>December 31, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermezzo product rights</td>
<td>$ 4,550</td>
</tr>
<tr>
<td>TO-2070 asset</td>
<td>440</td>
</tr>
<tr>
<td><strong>Gross intangible assets</strong></td>
<td><strong>4,990</strong></td>
</tr>
<tr>
<td>Less: Accumulated amortization</td>
<td>(176)</td>
</tr>
<tr>
<td><strong>Net intangible assets</strong></td>
<td><strong>$ 4,814</strong></td>
</tr>
</tbody>
</table>
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Amortization expense for the year ended December 31, 2014 was $0.2 million, which is included in general and administrative expense. Future estimated aggregate amortization expense is as follows (in thousands):

<table>
<thead>
<tr>
<th>Years Ended December 31,</th>
<th>Amortization</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>$ 1,057</td>
</tr>
<tr>
<td>2016</td>
<td>1,057</td>
</tr>
<tr>
<td>2017</td>
<td>1,032</td>
</tr>
<tr>
<td>2018</td>
<td>910</td>
</tr>
<tr>
<td>2019</td>
<td>758</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$ 4,814</strong></td>
</tr>
</tbody>
</table>

8. Accrued Expenses

Accrued expenses consist of the following (in thousands):

<table>
<thead>
<tr>
<th></th>
<th>December 31,</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accrued contract research</td>
<td>$ 896</td>
</tr>
<tr>
<td>Accrued legal costs</td>
<td>876</td>
</tr>
<tr>
<td>Accrued compensation</td>
<td>544</td>
</tr>
<tr>
<td>Intermezzo payable</td>
<td>399</td>
</tr>
<tr>
<td>Accrued professional fees</td>
<td>322</td>
</tr>
<tr>
<td>Accrued interest</td>
<td>—</td>
</tr>
<tr>
<td>Accrued other</td>
<td>215</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,252</strong></td>
</tr>
</tbody>
</table>

9. Notes Payable and Derivative Liability—Related Party

As a result of the Merger and concurrent recapitalization, there are no notes payables outstanding as of December 31, 2014. Historically, the Company has issued several notes with attendant derivative liabilities detailed as follows:

**March 2012 Notes**

In February and March 2012, the Company issued nonconvertible notes (the “March 2012 Notes”) to certain individuals and entities in the original aggregate principal amount of $5.8 million. The holders of the March 2012 Notes included officers, employees and directors of the Company, making the March 2012 Notes related party in nature. Pursuant to the terms of the March 2012 Notes, upon a reorganization, defined as a capital reorganization of the common stock (other than a subdivision, combination, recapitalization, reclassification or exchange of shares), a consolidation or merger of the Company, other than a merger or consolidation of the Company in a transaction in which the Company’s shareholders immediately prior to the transaction possess more than 50% of the voting securities of the surviving entity (or parent, if any) immediately after the transaction, or a sale of all or substantially all of the Company’s assets, the March 2012 Notes would become due and payable and the Company would be required to repurchase each note in an amount equal to the outstanding principal amount of such notes, plus 150% of the outstanding principal amount of each note, together with simple interest at a rate of 10.0% per year.
Upon certain liquidity events, including the license, transfer or assignment of all or a material portion of the Company’s assets or intellectual property, a public offering or any other alternative financing other than a reorganization defined above, the board of directors was required to evaluate whether the Company had sufficient cash on hand to repurchase the March 2012 Notes and to fund the Company’s working capital and funding needs for the Company’s clinical trials and related activities for at least 180 days. If sufficient cash was available, the Company was required to repurchase such notes at an amount equal to the outstanding principal amount of such notes, plus an amount equal to (i) 150% of the outstanding principal amount of each note if such repurchase occurred before August 13, 2013, or (ii) 150% of the outstanding principal amount of each note, together with simple interest at a rate of 10.0% per year, if the repurchase occurred after August 13, 2013. In such instance, if the Company only had sufficient cash to repurchase a portion of the March 2012 Notes, they were required to be repurchased on a pro rata basis. The March 2012 Notes could also have been repurchased by the Company at any time with approval by the board of directors and consent from the holders of more than 50% of the outstanding March 2012 Notes, in an amount equal to the outstanding principal amount of such notes, plus 150% of the outstanding principal amount of each note, together with simple interest at a rate of 10.0% per year. The March 2012 Notes did not have a contractual maturity date.

The purchase agreement pursuant to which the March 2012 Notes were issued included a provision that required the existing convertible preferred stockholders to participate in the offering of the March 2012 Notes based on their pro rata share of the $5.0 million offering amount. On March 21, 2012, pursuant to a vote of certain preferred stockholders, all convertible preferred stock was converted to common stock effective upon the close of business on the day immediately preceding the second closing of the March 2012 Notes financing. The convertible preferred stockholders who contributed at least their pro rata share converted back to their respective series of convertible preferred stock and retained the rights and privileges of their respective preferred stock class. See Note 10 below for these rights and preferences. In the event that the convertible preferred stockholders did not contribute their pro rata share, these stockholders continued to hold common stock. Upon the completion of the transaction, 1,024,509 shares of convertible preferred stock that were converted into 218,324 shares of common stock remained outstanding as shares of common stock.

The March 2012 Notes meet the definition of a derivative in their entirety as defined by ASC 815-10-15-83. The derivative was recorded at a fair value of $11.3 million upon the closing of the transaction within the derivative liability line on the balance sheets. As the fair value of the derivative liability exceeded the proceeds of the March 2012 Notes, the difference of $5.5 million between the fair value of the derivative liability and the proceeds from the March 2012 Notes was recorded as a charge to other expense at the time of the closing of the transaction. The derivative liability was marked to market at each reporting period with the change in fair value recorded in other income and expense.

The fair value of the derivative liability was determined using unobservable inputs and therefore was considered a Level 3 liability in the fair value hierarchy.

October 2012 Notes

In October 2012, the Company entered into a note and stock purchase agreement and issued $5.0 million in aggregate principal amount of convertible notes to certain of the Company’s existing stockholders (the “October 2012 Notes”). The holders of the October 2012 Notes included officers, employees and directors of the Company, making the October 2012 Note transaction related party in nature. The terms of the October 2012 Notes were substantially similar to the terms of the March 2012 Notes as described above with the following exceptions:

- Each October 2012 Note holder was entitled to receive up to four shares of the Company’s common stock for each $1.00 of notes purchased, with one-third of such shares, the “upfront shares”, issued upon the purchase of the October 2012 Notes, and the remaining two-thirds of such shares, the “deferred shares”, issued upon the completion of an initial public offering, so long as the offering
occurred prior to April 2, 2013. The Company issued 224,802 upfront shares associated with the $5.0 million raised in October 2012. The Company would have issued 449,623 shares if the Company had completed an initial public offering by April 2, 2013.

- If the board of directors approved any other private financing that was completed prior to an initial public offering, each holder would have been entitled to convert such holder’s investment in the notes, including the outstanding principal amount plus accrued and unpaid simple interest at 10.0% from the date of issuance, into the security that was issued as part of such private financing on terms and conditions no less favorable to the other investors participating in such private financing. All holders of the October 2012 Notes who elect to convert their notes, however, were required to forfeit all of their upfront shares, as well as the right to receive any deferred shares.

The Company has determined that the upfront and deferred shares were free-standing financial instruments to be separately accounted for as equity.

- The 224,802 upfront shares issued simultaneously with the October 2012 Notes were recorded in equity at a fair value of $4.7 million along with a corresponding charge to other expense in the year ended December 31, 2012.

- The 449,623 deferred shares to be issued upon completion of the initial public offering were recorded in equity at a fair value of $8.9 million along with a corresponding charge to other expense in the year ended December 31, 2012.

The October 2012 Notes also met the definition of a derivative in their entirety as set forth in ASC 815-10-15-83. This derivative was recorded at a fair value of $10.1 million upon the closing of the transaction within the derivative liability line on the balance sheets. The $5.1 million excess of the fair value of the derivative liability over the $5.0 million of proceeds from the October 2012 Notes was recorded as other expense at the time of the closing of the transaction.

**Exchange Notes, 2012 Notes**

Additionally, in October 2012 the Company and the holders of the March 2012 Notes agreed to exchange all of the March 2012 Notes for notes with substantially similar terms as the October 2012 Notes (the “Exchange Notes” and together with the October 2012 Notes, the “2012 Notes”), except that the holders of the Exchange Notes were not entitled to receive any upfront or deferred shares of the Company’s common stock.

**2013 Notes**

In 2013, the Company issued $4.8 million in aggregate principal amount of additional convertible promissory notes to certain investors, including existing stockholders (the “2013 Notes”). The holders of the 2013 Notes include officers, employees and directors of the Company, making the 2013 Note transaction related party in nature. The terms of the 2013 Notes were identical to the terms of the October 2012 Notes described above. The Company issued 216,087 upfront shares associated with the $4.8 million raised in 2013, which was recorded in equity at a fair value of $2.9 million along with a corresponding charge to other expense in the year ended December 31, 2013. No deferred shares were issued as an initial public offering had not occurred prior to April 2, 2013, and as such there was no value assigned to any deferred shares associated with the 2013 Notes. The $2.0 million excess of the fair value of the derivative liability over the $4.8 million of proceeds from the 2013 Notes was recorded as other expense in the year ended December 31, 2013.

**Convertible Notes**

Together, the “Exchange Notes”, the “October 2012 Notes” and the “2013 Notes” are referred to as the “Convertible Notes”. The Convertible Notes derivative liability was marked to fair value each reporting period.
with the change in fair value recorded in other income and expense. During the year ended December 31, 2013, the Company recorded $8.0 million in other income related to the re-measurement of the fair value of the derivative liability.

Upon completion of an initial public offering, all of the Convertible Notes would have been exchanged for notes with revised repurchase and conversion terms (the “Post-IPO Notes”). Pursuant to the terms of the Post-IPO Notes, the Company would have been obligated to repurchase all Post-IPO Notes in an amount equal to the outstanding principal amount of such notes, plus 150% of the outstanding principal amount of each note, together with simple interest at a rate of 10.0% per year, upon the earlier to occur of (i) a reorganization, which is defined as a capital reorganization of the common stock (other than a subdivision, combination, recapitalization, reclassification or exchange of shares), a consolidation or merger of the Company (other than a merger or consolidation of the Company in a transaction in which the Company’s shareholders immediately prior to the transaction possess more than 50% of the voting securities of the surviving entity (or parent, if any) immediately after the transaction) or a sale of all or substantially all of the Company’s assets, or (ii) approval of any of the Company’s product candidates, including omadacycline, for any indication by the FDA, the EMA or the equivalent regulatory agencies in at least two European countries. Additionally, the Company could have chosen to repurchase the Post-IPO Notes in an amount equal to the outstanding principal amount of such notes, plus 150% of the outstanding principal amount of each note, together with simple interest at a rate of 10.0% per year, prior to the events described in (i) or (ii) above if, after one or more specified liquidity events as described below, such repurchase was permitted under any existing loan documents and the board of directors determined in good faith that (A) none of the proceeds of the planned initial public offering would be used to effect such repurchase and (B) the Company had sufficient cash to fund its general operating needs through the completion of the two planned Phase 3 registration studies for acute bacterial skin and skin structure infections (“ABSSSI”) and an additional 12 months thereafter. To effect this early repurchase, one or more liquidity events must have occurred, which include, among other things, a license or a public offering other than the planned initial public offering. In addition, any holder of Post-IPO Notes may convert all or a portion of the then-outstanding principal amount and any unpaid accrued interest of the Post-IPO Notes into shares of common stock in an amount equal to 150% of the principal amount of the Post-IPO Note elected to be converted, plus accrued and unpaid interest, at a conversion price equal to 115% of the initial public offering price. No Post-IPO Notes had been issued as of December 31, 2013 as the Company had not completed an initial public offering.

In 2014, the Company and the holders of the Convertible Notes agreed to convert all outstanding principal and interest into shares of a new series of the Company’s convertible preferred stock. The derivative liability related to the Convertible Notes was eliminated upon their conversion in the March 2014 Notes recapitalization transaction, and the fair value was reclassified to mezzanine equity.

2014 Notes

In March 2014, the Company issued nonconvertible senior secured promissory notes (the “2014 Notes”) to certain individuals and entities in the original aggregate principal amount of $6.0 million in connection with a concurrent recapitalization of the Company’s capital stock (See Note 10). $520 of the $6.0 million raised in the 2014 Note financing had been prefunded by certain investors of the Company in prior periods. The 2014 Notes were collateralized by substantially all of the assets of the Company and accrued interest at a rate of 10% per annum. The holders of the 2014 Notes included officers, employees and directors of the Company, making the 2014 Notes related party in nature. Pursuant to the terms of the 2014 Notes, the aggregate amount of principal outstanding was to have become due and payable upon the first to occur of June 30, 2014 or a number of other defined events that had not transpired and, as a result, an event of default existed that the lenders agreed to forbear subject to a Debt Conversion Agreement (the “Debt Conversion Agreement”) entered into in June 2014. Under the Debt Conversion Agreement, the $6.0 million principal amount outstanding under, and all interest accrued ($0.4 million) on, the 2014 Notes were converted into shares of the Company’s common stock immediately prior to the closing of the Financing with a value of $15.4 million and resulted in a $9.0 million loss on exchange of non-convertible note for common stock recorded to other non-operating expenses in the year ended December 31, 2014.
The Lead Lenders committed to a minimum investment of $3.3 million in the March 2014 secured debt financing. The terms of the March 2014 secured debt financing included a provision that required the other existing holders of the outstanding convertible notes to participate in the offering of the 2014 Notes based on their pro rata share of the remaining $2.8 million offering amount. The convertible note holders who contributed their pro rata share to the March 2014 secured debt financing converted their existing principal amount of convertible notes outstanding into 2.25 shares of newly designated Series A Convertible Preferred Stock (“New Series A Convertible Preferred Stock”) for every $1.00 of principal outstanding. The convertible note holders who did not contribute their pro rata share to the March 2014 secured debt financing converted their existing principal amount of convertible notes outstanding into 1.00 share of New Series A Convertible Preferred Stock for every $1.00 of principal outstanding. Moreover, all accrued interest as of February 28, 2014 was converted into New Series A Convertible Preferred Stock on a dollar-for-dollar basis. Upon the closing of the March 2014 transactions, $15.6 million of principal and $2.2 million of accrued interest related to the existing convertible notes converted into 2,256,674 shares of New Series A Convertible Preferred Stock.

Pursuant to the terms of the March 2014 secured debt financing, in April 2014, the Lead Lenders invested the difference between $2.8 million and the amount invested by other holders of the existing convertible notes to bring the total financing proceeds to $6.0 million. The amount of this additional investment by the Lead Lenders was $0.7 million. In connection with this additional investment, the Lead Lenders received warrants exercisable for 9,614 shares of New Series A Convertible Preferred Stock with an exercise price of $0.01 per share (the “New Series A warrants”). The New Series A Warrants have a term of seven years. The New Series A Warrants were recorded at an initial fair value of approximately $40,000.

10. Common and Convertible Preferred Stock

Following the Merger, the authorized capital stock of the Company consists of 100,000,000 shares of common stock, par value $0.001 per share, 4,000,000 shares of undesignated preferred stock, par value $0.001 per share, and 1,000,000 shares of Series A Junior Participating Preferred Stock, par value $0.001 as of December 31, 2014. There are no shares of preferred stock or Series A Junior Participating Preferred Stock issued or outstanding.

Common Stock

The holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders and there are no cumulative rights. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of common stock are entitled to receive ratably any dividends that may be declared from time to time by the board of directors out of funds legally available for that purpose. In the event of liquidation of the Company, dissolution or winding up, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock then outstanding. The common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. The outstanding shares of common stock are fully paid and non-assessable.

Preferred Stock

The Company’s board of directors has the authority, without further action by the stockholders, to issue up to 5,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions granted to or imposed upon the preferred stock. Any or all of these rights may be greater than the rights of the common stock.

The board of directors, without stockholder approval, can issue preferred stock with voting, conversion or other rights that could negatively affect the voting power and other rights of the holders of common stock. Preferred stock could thus be issued quickly with terms calculated to delay or prevent a change in control of Transcept or make it more difficult to remove Transcept management. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of Transcept’s common stock.
The board of directors may specify the following characteristics of any preferred stock:

- the maximum number of shares;
- the designation of the shares;
- the annual dividend rate, if any, whether the dividend rate is fixed or variable, the date or dates on which dividends will accrue, the dividend payment dates, and whether dividends will be cumulative;
- the price and the terms and conditions for redemption, if any, including redemption at the option of Transcept or at the option of the holders, including the time period for redemption, and any accumulated dividends or premiums;
- the liquidation preference, if any, and any accumulated dividends upon the liquidation, dissolution or winding up of Transcept affairs;
- any sinking fund or similar provision, and, if so, the terms and provisions relating to the purpose and operation of the fund;
- the terms and conditions, if any, for conversion or exchange of shares of any other class or classes of Transcept capital stock or any series of any other class or classes, or of any other series of the same class, or any other securities or assets, including the price or the rate of conversion or exchange and the method, if any, of adjustment;
- the voting rights; and
- any or all other preferences and relative, participating, optional or other special rights, privileges or qualifications, limitations or restrictions.

Any preferred stock issued will be fully paid and nonassessable upon issuance.

As of December 31, 2013, the authorized capital stock of the company consisted of 8,100,000 shares of common stock, par value $0.001 per share, and 2,362,500 preferred stock. As a result of the Merger and concurrent recapitalization, there are no shares of preferred stock issued or outstanding as of December 31, 2014. The following summarizes the Company’s convertible preferred stock outstanding as of December 31, 2013 (in thousands):

<table>
<thead>
<tr>
<th>Series</th>
<th>Shares Authorized</th>
<th>Shares Issued and Outstanding</th>
<th>Carrying Value</th>
<th>Liquidation Preference</th>
<th>Liquidation Preference (Per Share)</th>
<th>Conversion Price (Per Share)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>101,250</td>
<td>13,206</td>
<td>$1,129</td>
<td>$2,571</td>
<td>$194.67</td>
<td>$87.11</td>
</tr>
<tr>
<td>B</td>
<td>51,019</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>C</td>
<td>344,284</td>
<td>40,342</td>
<td>12,983</td>
<td>29,395</td>
<td>728.64</td>
<td>348.30</td>
</tr>
<tr>
<td>D</td>
<td>431,383</td>
<td>65,044</td>
<td>26,842</td>
<td>53,155</td>
<td>817.19</td>
<td>413.63</td>
</tr>
<tr>
<td>E</td>
<td>62,657</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>F</td>
<td>177,587</td>
<td>8,663</td>
<td>3,337</td>
<td>6,291</td>
<td>726.22</td>
<td>413.63</td>
</tr>
<tr>
<td>G</td>
<td>82,964</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>H</td>
<td>670,764</td>
<td>108,994</td>
<td>36,274</td>
<td>57,548</td>
<td>528.00</td>
<td>356.59</td>
</tr>
</tbody>
</table>

**December 31, 2013**

<table>
<thead>
<tr>
<th>Shares Authorized</th>
<th>Shares Issued and Outstanding</th>
<th>Carrying Value</th>
<th>Liquidation Preference</th>
<th>Liquidation Preference (Per Share)</th>
<th>Conversion Price (Per Share)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,921,908</td>
<td>236,249</td>
<td>$80,565</td>
<td>$148,960</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Warrants to Purchase Common Stock**

9,614 warrants to purchase common stock have an exercise price of $0.15 per share and will, if not exercised, expire in 2021. A further 5,120 warrants to purchase common stock have an exercise price of $73.66 and will, if not exercised, expire in 2016.
Preferred Stock Purchase Rights

On September 27, 2013, the Company’s Board of Directors adopted a tax benefit preservation plan to help preserve the value of certain deferred tax benefits, including those generated by net operating losses and net unrealized built-in losses. The Company’s ability to use these tax benefits would be substantially limited if it were to experience an “ownership change” as defined under Section 382 of the Internal Revenue Code of 1986, as amended. Under the provisions of this plan, preferred stock purchase rights (“Rights”) may be issued to holders of common stock that would initially trade together with the Company’s common stock but not be exercisable. As long as the Rights are attached to the common stock, the Company will issue 12 Rights (subject to adjustment) with each new share of the common stock so that all such shares will have attached Rights. When exercisable, each Right will entitle the registered holder to purchase from the Company one one-hundredth of a share of Series A Junior Participating Preferred Stock, par value $0.001 per share (the “Series A Preferred”), of the Company at a price of $14.24 per one one-hundredth of a share of Series A Preferred, subject to adjustment. Each share of Series A Preferred purchasable upon exercise of the Rights will be entitled, when, as and if declared, to a minimum preferential quarterly dividend payment of $1.00 per share or, if greater, an aggregate dividend of 100 times the dividend, if any, declared per share of common stock. In the event of liquidation, dissolution or winding up of Paratek, the holders of the Series A Preferred will be entitled to a minimum preferential liquidation payment of $100 per share (plus any accrued but unpaid dividends), provided that such holders of the Series A Preferred will be entitled to an aggregate payment of 100 times the payment made per share of common stock. Each share of Series A Preferred will have 100 votes and will vote together with our common stock. Finally, in the event of any merger, consolidation or other transaction in which shares of common stock are exchanged, each share of Series A Preferred will be entitled to receive 100 times the amount received per share of common stock. The Series A Preferred will not be redeemable. These rights are protected by customary antidilution provisions.

The tax benefit preservation plan, subject to limited exceptions, provides that any stockholder or group that acquires beneficial ownership of 4.99% or more of the Company’s securities without the approval of the Company’s Board of Directors would be subject to significant dilution of its holdings. In addition, subject to limited exceptions, any existing 4.99% or greater stockholder that acquires beneficial ownership of any additional shares of the Company’s securities without the approval of the Board of Directors would also be subject to dilution. In both cases, such person would be deemed to be an “acquiring person” for purposes of the tax benefit presentation plan.

In the event that a person becomes an “Acquiring Person” under the tax benefit presentation plan, subject to certain exceptions, the Rights, other than Rights that are or were acquired or beneficially owned by the Acquiring Person (which Rights will thereafter be null and void), will become exercisable for a number of shares of the Company’s common stock having a market value equal to twice the exercise price of the Right. The Board of Directors has established procedures to consider requests to exempt certain acquisitions of the Company’s securities from the tax benefit presentation plan if the Board of Directors determines that doing so would not limit or impair the availability of the tax benefits or is otherwise in the best interests of the Company.

11. Convertible Preferred Stock Warrants

Warrants to purchase preferred stock with no intrinsic value were cancelled in connection with the Merger while those with intrinsic value were exchanged for 9,614 warrants to purchase common stock as noted above. As of December 31, 2013, the Company had 2,243 warrants to purchase Series H Convertible Preferred Stock outstanding with a weighted-average exercise price of $356.59 each and aggregate fair value of approximately $3,000.

For the years ended December 31, 2014 and 2013, the Company recorded other income related to the re-measurement of warrants to purchase convertible preferred stock of approximately $1,000 and $24,000, respectively. The Company continued to record adjustments to the fair value of the warrants until the closing of the merger transaction on October 30, 2014, when they became warrants to purchase shares of common stock, at which point the warrants were no longer subject to ASC Topic 480. As of October 30, 2014, approximately $40,000, the then-current aggregate fair value of these warrants, was reclassified from a liability to additional paid-in capital, a component of stockholders’ equity (deficit).
12. Fair Value Measurements

Financial instruments, including cash, restricted cash, accounts receivable and accounts payable are carried on the consolidated financial statements at amounts that approximate fair value. Fair values are based on assumptions concerning the amount and timing of estimated future cash flows and assumed discount rates, reflecting varying degrees of perceived risk.

The following tables present information about the Company’s financial assets and liabilities that have been measured at fair value as of December 31, 2014 and 2013 and indicate the fair value hierarchy of the valuation inputs utilized to determine such fair value. In general, fair values determined by Level 1 inputs utilize quoted prices (unadjusted) in active markets for identical assets or liabilities. Fair values determined by Level 2 inputs utilize observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities or other inputs that are observable market data. Fair values determined by Level 3 inputs utilize unobservable data points for the asset or liability, and include situations where there is little, if any, market activity for the asset or liability (in thousands):

<table>
<thead>
<tr>
<th>Description</th>
<th>Quoted Prices in Active Markets (Level 1)</th>
<th>Significant Other Observable Inputs (Level 2)</th>
<th>Significant Unobservable Inputs (Level 3)</th>
<th>December 31, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermezzo reserve</td>
<td>$ —</td>
<td>$ —</td>
<td>$ 2,850</td>
<td>$ 2,850</td>
</tr>
<tr>
<td>Contingent obligations</td>
<td>—</td>
<td>—</td>
<td>4,560</td>
<td>4,560</td>
</tr>
<tr>
<td></td>
<td>$ —</td>
<td>$ —</td>
<td>$ 7,410</td>
<td>$ 7,410</td>
</tr>
<tr>
<td>Liabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convertible preferred stock warrants</td>
<td>$ —</td>
<td>$ —</td>
<td>$ 3</td>
<td>$ 3</td>
</tr>
<tr>
<td>Derivative liability</td>
<td>—</td>
<td>—</td>
<td>21,022</td>
<td>21,022</td>
</tr>
<tr>
<td></td>
<td>$ —</td>
<td>$ —</td>
<td>$ 21,025</td>
<td>$ 21,025</td>
</tr>
</tbody>
</table>

As of December 31, 2014, the fair value of the contingent obligations to former Transcept stockholders was determined using probability-weighted scenario methodologies, employing cash-flow and sale proceeds income approaches with consideration to the potential timing of possible payments to former Transcept stockholders. Material assumptions used to value contingent obligations to former Transcept stockholders with respect to Intermezzo product right and the associated Intermezzo reserve include:

- Probabilities associated with the various outcomes of the ongoing ANDA litigation and the potential sale of Intermezzo product rights;
- The forecasted Intermezzo product revenues and associated royalties due to the Company, as well as the appropriate discount rate given consideration to the market and forecast risk involved; and
- The potential proceeds associated with, and timing of, the sale of the Company’s Intermezzo product rights.

Material assumptions used to value contingent obligations to former Transcept stockholders with respect to the TO-2070 asset include:

- Probabilities associated with SNBL licensing the TO-2070 asset under the SNBL Termination Agreement; and
- Potential proceeds associated with, and timing of, the potential payments in accordance with the SNBL Termination Agreement.

The following table provides a roll forward of the fair value of the Intermezzo reserve and contingent liability categorized as Level 3 instruments, for the year ended December 31, 2014 (in thousands):

<table>
<thead>
<tr>
<th>Description</th>
<th>Quoted Prices in Active Markets (Level 1)</th>
<th>Significant Other Observable Inputs (Level 2)</th>
<th>Significant Unobservable Inputs (Level 3)</th>
<th>December 31, 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermezzo reserve</td>
<td>$ —</td>
<td>$ —</td>
<td>$ 3</td>
<td>$ 3</td>
</tr>
<tr>
<td>Contingent obligations</td>
<td>—</td>
<td>—</td>
<td>21,022</td>
<td>21,022</td>
</tr>
<tr>
<td></td>
<td>$ —</td>
<td>$ —</td>
<td>$ 21,025</td>
<td>$ 21,025</td>
</tr>
</tbody>
</table>
As of December 31, 2013, the fair value of the convertible preferred stock warrants was determined using the Black-Scholes option valuation model. The quantitative information associated with the fair value measurement of the Company’s Level 3 inputs related to the convertible preferred stock warrants as of December 31, 2013 include the fair value per share of the underlying convertible preferred stock, the remaining contractual term of the warrants (2.21 years), risk-free interest rate (0.34%), expected dividend yield (0%) and expected volatility of the price of the underlying preferred stock (73%) The fair value of the derivative liability related to the nonconvertible and convertible notes was determined using a probability adjusted discounted cash flow model. The quantitative information associated with the fair value measurement of the Company’s Level 3 inputs related to the derivative liability include the probabilities of an event requiring repurchase of the convertible notes, which range from 10.0% to 45.0%, the estimated time to repurchase, which ranges from six months to twelve months, and a discount rate of 20%.

The following table provides a roll-forward of the fair value of the convertible preferred stock warrants, derivative liability and continent liability to former Transcept stockholders categorized as Level 3 instruments for the years ended December 31, 2014 and 2013 (in thousands):

<table>
<thead>
<tr>
<th></th>
<th>Intermezzo reserve—former Transcept stockholders</th>
<th>Contingent liability—former Transcept stockholders</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Balances at December 31, 2013</strong></td>
<td>$ 2,870</td>
<td>$ 4,580</td>
</tr>
<tr>
<td>Fair value on acquisition</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Increase in fair value</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Payments made</td>
<td>(20)</td>
<td>-</td>
</tr>
<tr>
<td>Reclassification to Intermezzo royalty payable</td>
<td>-</td>
<td>(399)</td>
</tr>
<tr>
<td><strong>Balances at December 31, 2014</strong></td>
<td>$ 2,850</td>
<td>$ 4,560</td>
</tr>
</tbody>
</table>

13. Stock-Based Compensation


Incentive stock options may be granted with exercise prices of not less than estimated fair value, and non-statutory stock options generally granted with an exercise price of not less than 85% of the estimated fair value of
the common stock on the date of grant. Stock options granted to a stockholder owning more than 10% of voting stock of the Company must have an exercise price of not less than 110% of the estimated fair value of the common stock on the date of grant. The Company estimated the fair value of common stock until the Company became publicly traded. Stock options are generally granted with terms of up to ten years and vest over a period of four years.

2006 Plan

The 2006 Plan provides for the granting of incentive stock options, non-statutory stock options, restricted stock, performance share awards, performance stock units, dividend equivalents, restricted stock units, stock payments, deferred stock, performance-based awards and stock appreciation rights. The employee stock options generally vest over four years, are exercisable over a period not to exceed the contractual term of ten years from the date the stock options are issued and are granted at prices equal to the fair value of the Company’s common stock on the grant date. The 2006 Plan will terminate on June 2, 2020.

Stock option and restricted stock unit exercises are settled with newly issued common stock from the 2006 Plan’s previously authorized and available pool of shares. A total of 41,667 shares of common stock was originally authorized for issuance pursuant to the 2006 Plan, plus the number of shares of the Company’s common stock available for issuance under the 2001 Plan that were not subject to outstanding options, as of the effective date of the 2006 Plan (including shares that are subject to stock options outstanding under the 2001 Plan that expired, were canceled or otherwise terminated unexercised, or shares that otherwise would have reverted to the share reserve of the 2001 Plan following the effective date of the 2006 Plan). The number of shares of common stock reserved for issuance under the Amended and Restated 2006 Plan increases automatically on the first day of each fiscal year by a number of shares equal to the least of: (i) 5.0% of shares of the Company’s common stock outstanding on such date; (ii) 125,000 shares; or (iii) a smaller number determined by the Company’s Board of Directors. This provision resulted in an additional 125,000, 78,509, and 77,818 of the Company’s common stock becoming available for issuance on January 1, 2015, January 1, 2014, and January 1, 2013, respectively. The maximum aggregate number of shares that may be issued pursuant to incentive stock options under the Amended and Restated 2006 Plan is 2,083,333.

At December 31, 2014, there remain 380,079 shares available for issuance under the 2006 Plan. See Subsequent Events Note 18.

2014 Plan

The 2014 Plan provides for the granting of incentive and non-statutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards and other stock awards to employees, officers, directors, and consultants of the Company. Under the 2014 Plan, 67,500 shares of common stock were initially approved for grant. 67,500 shares of fully-vested restricted common stock were granted pursuant to the 2014 Plan to current and former employees and directors of the Company in June 2014. Attendant compensation expense of $0.3 million determined with reference to the then fair value of the Company’s common stock determined in good faith by the Company’s Board of Directors was recorded in connection with the June 2014 grant.

Also in June 2014, the board of directors approved an increase in the shares available for awards under the 2014 Plan to 875,531 shares from the 67,500 shares and granted the resulting 808,031 shares that became available for issuance under the 2014 Plan as options to purchase common stock to certain employees in June 2014. The common stock grants and stock option exercises from the 2014 Plan are settled with newly issued common stock from the 2014 Plan’s previously authorized and available pool of shares.

Certain of the options to purchase common stock issued in June 2014 were subsequently modified in 2014 on separation of the employees involved to provide for, among other changes, accelerated vesting terms.
At December 31, 2014, there remain 26,459 shares available for issuance under the 2014 Plan.

A summary of stock option activity and related information through December 31, 2014 follows:

<table>
<thead>
<tr>
<th></th>
<th>Number of Shares</th>
<th>Weighted Average Exercise Price</th>
<th>Weighted–Average Remaining Contractual Term (in Years)</th>
<th>Aggregate Intrinsic Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outstanding</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balances at December 31,</td>
<td>5,762</td>
<td>$471.40</td>
<td>6.2</td>
<td>$—</td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Granted</td>
<td>808,027</td>
<td>4.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exercised</td>
<td>—</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forfeited</td>
<td>(32,221)</td>
<td>87.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balances at December 31,</td>
<td>781,568</td>
<td>$4.30</td>
<td>9.5</td>
<td>$26,768</td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Exercisable</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December 31, 2014</td>
<td>54,392</td>
<td>$4.30</td>
<td>—</td>
<td>$—</td>
</tr>
<tr>
<td><strong>Vested and expected to vest</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December 31, 2014</td>
<td>733,370</td>
<td>$4.30</td>
<td>9.5</td>
<td>$25,121</td>
</tr>
</tbody>
</table>

Of the total options exercisable at December 31, 2014 and 2013, 54,392 and 5,099, respectively, were vested and 0 and 663, respectively, were subject to further vesting provisions. At December 31, 2014 and 2013, the Company had no shares exercised by employees that were still subject to certain vesting restrictions.

The aggregate intrinsic value was calculated based on the positive difference between the estimated fair value of the Company’s common stock of $38.55 per share at December 31, 2014 and $202.07 per share at December 31, 2013, and the exercise price of the underlying options.

The total intrinsic value of stock options exercised was $0 for each of the years ended December 31, 2014 and 2013.

The weighted-average grant-date fair value of grants of stock options was $2.71 per share for the year ended December 31, 2014. No stock options were granted in the year ended December 31, 2013.

Stock-based compensation expense is estimated as of the grant date based on the fair value of the award and is recognized as expense over the requisite service period, which generally represents the vesting period. The Company estimates the fair value of its stock options using the Black-Scholes option-pricing model. The expected term and expected volatility are based on comparable companies from a representative peer group based on industry and market capitalization. The risk-free interest rate is the yield currently available on U.S. Treasury zero-coupon issues with a remaining term approximating the expected term used as the input to the Black-Scholes model. The relevant data used to determine the value of the stock option grants is as follows:

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility</td>
<td>72.0%</td>
<td>—</td>
</tr>
<tr>
<td>Weighted average risk-free interest rate</td>
<td>1.9%</td>
<td>—</td>
</tr>
<tr>
<td>Expected dividend yield</td>
<td>0.0%</td>
<td>—</td>
</tr>
<tr>
<td>Expected life of options (in years)</td>
<td>5.8</td>
<td>—</td>
</tr>
</tbody>
</table>
For all grants, the amount of stock-based compensation expense recognized has been adjusted for estimated forfeitures of awards for which the requisite service is not expected to be provided. Estimated forfeiture rates are developed based on the Company’s analysis of historical forfeiture data.

**Stock-Based Compensation**

The Company recognizes the associated compensation expense over the vesting periods of the awards, net of estimated forfeitures. The following table presents stock-based compensation expense included in the Company’s consolidated statements of operations (in thousands):

<table>
<thead>
<tr>
<th></th>
<th>Year Ended December 31,</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014</td>
<td>2013</td>
</tr>
<tr>
<td>Research and development expense</td>
<td>$288</td>
<td>$98</td>
</tr>
<tr>
<td>General and administrative expense</td>
<td>418</td>
<td>151</td>
</tr>
<tr>
<td><strong>Total stock-based compensation expense</strong></td>
<td><strong>$706</strong></td>
<td><strong>$249</strong></td>
</tr>
</tbody>
</table>

Total unrecognized stock-based compensation expense for all stock-based awards was $1.6 million at December 31, 2014. This amount will be recognized over a weighted-average period of 3.1 years.

**Employee Stock Purchase Plan**

The Company’s Employee Stock Purchase Plan adopted in 2009 (the “ESPP”) is designed to allow eligible employees of the Company to purchase shares of common stock through periodic payroll deductions. The price of common stock purchased under the ESPP is equal to 85% of the lower of the fair market value of the common stock on the commencement date of each offering period or the specified purchase date. As of December 31, 2014, there remain 36,539 shares available for issuance under the ESPP.

**Reserved Shares**

At December 31, 2014, the Company has reserved shares of common stock for future issuance as follows:

<table>
<thead>
<tr>
<th></th>
<th>Number of Shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee stock purchase plan</td>
<td>36,539</td>
</tr>
<tr>
<td>Stock option plans:</td>
<td></td>
</tr>
<tr>
<td>Subject to outstanding options</td>
<td>781,568</td>
</tr>
<tr>
<td>Available for future grants</td>
<td>406,538</td>
</tr>
<tr>
<td>Warrants</td>
<td>14,734</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,239,379</strong></td>
</tr>
</tbody>
</table>

**14. Income Taxes**

There is no provision for income taxes in the United States because the Company has historically incurred operating losses and maintains a full valuation allowance against its net deferred tax assets. The reported amount of income tax expense for the years differs from the amount that would result from applying domestic federal statutory tax rates to pretax losses primarily because of changes in valuation allowance.
A reconciliation of the Company’s effective tax rate to the statutory federal income tax rate is as follows:

<table>
<thead>
<tr>
<th></th>
<th>Year Ended December 31,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014</td>
</tr>
<tr>
<td>Federal statutory rate</td>
<td>35.00%</td>
</tr>
<tr>
<td>Change in valuation allowance</td>
<td>(18.84)</td>
</tr>
<tr>
<td>Permanent differences</td>
<td>(19.89)</td>
</tr>
<tr>
<td>State taxes, net of federal benefits</td>
<td>2.23</td>
</tr>
<tr>
<td>Other</td>
<td>1.50</td>
</tr>
<tr>
<td></td>
<td>0.00%</td>
</tr>
</tbody>
</table>

Significant components of the Company’s net deferred tax assets at December 31, 2014 and 2013 are as follows:

<table>
<thead>
<tr>
<th></th>
<th>Year Ended December 31,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014</td>
</tr>
<tr>
<td>Current deferred tax assets</td>
<td></td>
</tr>
<tr>
<td>Accrued expenses</td>
<td>569</td>
</tr>
<tr>
<td>Total gross current deferred tax assets</td>
<td>569</td>
</tr>
<tr>
<td>Non-current deferred tax assets</td>
<td></td>
</tr>
<tr>
<td>Net operating losses</td>
<td>45,127</td>
</tr>
<tr>
<td>Capitalized research and development</td>
<td>11,798</td>
</tr>
<tr>
<td>Tax credit carryforwards</td>
<td>6,426</td>
</tr>
<tr>
<td>Stock compensation and other</td>
<td>182</td>
</tr>
<tr>
<td>Total non-current deferred tax assets</td>
<td>63,533</td>
</tr>
<tr>
<td>Non-current deferred tax liabilities</td>
<td></td>
</tr>
<tr>
<td>Intangible assets</td>
<td>(1,935)</td>
</tr>
<tr>
<td>Fixed assets</td>
<td>(146)</td>
</tr>
<tr>
<td>Total non-current deferred tax liabilities</td>
<td>(2,081)</td>
</tr>
<tr>
<td>Net non-current deferred tax asset</td>
<td>62,021</td>
</tr>
<tr>
<td>Less: valuation allowance</td>
<td>(62,021)</td>
</tr>
<tr>
<td>Net deferred tax asset</td>
<td>$ —</td>
</tr>
</tbody>
</table>

As of December 31, 2014, the Company had federal and state net operating loss carryforwards of $128.5 million and $2.4 million, respectively, which begin to expire in 2018. As of December 31, 2014, the Company had federal and state research and development tax credits carryforwards of $4.3 million and $3.3 million, respectively, which began to expire in 2014.

Management of the Company has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets, which are comprised principally of net operating loss carryforwards and research and development credits. Under the applicable accounting standards, management has considered the Company’s history of losses and concluded that it is more likely than not that the Company will not recognize the benefits of federal and state deferred tax assets. Accordingly, a full valuation allowance of $62.0 million and $60.5 million, respectively, was established at December 31, 2014 and 2013.

Utilization of the net operating loss and research and development credit carryforwards may be subject to a substantial annual limitation under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, due to ownership change limitations that have occurred previously or that could occur in the future. These ownership
changes may limit the amount of net operating loss and research and development credit carryforwards that can be utilized annually to offset future taxable income and tax, respectively.

The Company’s Merger consisted of two separate steps but was treated as an integrated transaction for federal income tax purposes. As a result of this transaction, some of the Company’s federal net operating losses, credits, and historical state attributes did not carryover under the new consolidated structure. Accordingly, the Company’s carryforward attributes have been written off along with the corresponding valuation allowance that was previously recorded against them. To date, the Company has not performed a formal study to determine if any of its remaining NOL and credit attributes might be further limited due to the ownership change rules of Section 382 or Section 383 of the Internal Revenue Code of 1986, as amended. The Company will continue to monitor this matter going forward during 2015.

The Company adopted the provisions of ASC 740-10 Accounting for Uncertainty in Income Taxes—an interpretation of ASC 740, on January 1, 2009, which required the Company to determine whether a tax position of the Company is more likely than not to be sustained upon examination, including resolution of any related appeals of litigation processes, based on the technical merits of the position. For tax positions meeting the more likely than not threshold, the tax amount recognized in the financial statements is reduced by the largest benefit that has a greater than fifty percent likelihood of being realized upon the ultimate settlement with the relevant taxing authority. The Company has determined that the adoption of ASC 740 did not have a material effect on the consolidated financial statements.

The Company files tax returns as prescribed by the tax laws of the jurisdictions in which it operates. In the normal course of business, the Company is subject to examination by federal and state jurisdictions, where applicable. The earliest tax years that remain subject to examination by jurisdiction is 2011 for both federal and Massachusetts. However, to the extent the Company utilizes net operating losses from years prior to 2010, the statute remains open to the extent of the net operating losses utilized. The Company’s policy is to record interest and penalties related to income taxes as part of the tax provision. There was no interest or penalties pertaining to uncertain tax positions in 2014 or 2013.

15. Commitments and Contingencies

Leases

Future minimum operating lease obligations under non-cancelable leases with initial terms of more than one-year are as follows (in thousands):

<table>
<thead>
<tr>
<th>Years Ended December 31,</th>
<th>Minimum Lease Obligation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>$513</td>
</tr>
<tr>
<td>2016</td>
<td>513</td>
</tr>
<tr>
<td>Total</td>
<td>$1,026</td>
</tr>
</tbody>
</table>

Under terms of the Company’s lease agreement, as amended, payments escalated during the term of the lease. The Company has recorded an accrued rent liability of $0.1 million and $0.1 million at December 31, 2014 and 2013, respectively, to account for these leases on a straight-line basis over the term of the lease.

In June 2012, the Company terminated one of its operating leases prior to the contractual termination date. As a result of the early termination, the Company was required to pay the landlord an aggregate of $1.6 million through monthly payments until May 2013. This amount was recorded as rent expense in the year ended December 31, 2012.
Net rent expense recorded by the Company for the years ended December 31, 2014 and 2013 was $0.6 million and $1.0 million, respectively.

The following pending litigation was assumed through the Merger.

**Intermezzo Patent Litigation**

In July 2012, the Company received notifications from three companies, Actavis Elizabeth LLC (Actavis), Watson Laboratories, Inc.—Florida (Watson), and Novel Laboratories, Inc. (Novel), in September 2012, from each of Par Pharmaceutical, Inc. and Par Formulations Private Ltd. (together, the Par Entities), in February 2013 from Dr. Reddy’s Laboratories, Inc. and Dr. Reddy’s Laboratories, Ltd. (together, Dr. Reddy’s), and in July 2013 from TWi Pharmaceuticals, Inc. (“Twi”) stating that each has filed with the FDA an Abbreviated New Drug Application, or ANDA, that references Intermezzo.

- **Actavis & Watson**: In the July 2012 notifications, Actavis and Watson indicated that each company’s ANDA includes Paragraph IV patent certifications to our U.S. Patent Nos. 7,658,945 (expiring April 15, 2027) and 7,682,628 (expiring February 16, 2025) (together, the “‘945 and ‘628 Patents”). On November 28, 2012, Watson withdrew its ANDA, and, as a result of such withdrawal, on December 18, 2012, the Company and Purdue agreed to voluntarily dismiss the action without prejudice and on December 20, 2012 a court order was entered to such effect. The dismissal of Watson’s ANDA had no effect on the ANDA filed by Actavis, a wholly owned subsidiary of Watson Pharmaceuticals, Inc. On January 24, 2013, Actavis notified the Company that it has included Paragraph IV patent certifications to Transcept’s U.S. Patent Nos. 8,242,131 (expiring August 20, 2029) and 8,252,809 (expiring February 16, 2025) (together, the “‘131 and ‘809 Patents”).

- **Novel**: In the July 2012 notifications, Novel indicated that its ANDA includes Paragraph IV patent certifications to the ‘945 and ‘628 Patents. On December 10, 2012, Novel notified the Company that it has included Paragraph IV patent certifications to the ‘131 and ‘809 Patents.

- **Par Entities**: The ANDAs submitted by the Par Entities each include Paragraph IV patent certifications to the ‘945, ‘628, ‘131 and ‘809 Patents.

- **Dr. Reddy’s**: The ANDA submitted by Dr. Reddy’s includes Paragraph IV patent certifications to the ‘945, ‘628, ‘131 and ‘809 Patents.

- **TWi**: The ANDA submitted by TWi includes Paragraph IV patent certifications to the ‘945, ‘628, ‘131 and ‘809 Patents.

In August 2012, September 2012, and October 2012, respectively, the Company joined Purdue Pharma in filing actions against Actavis, Watson and certain of their affiliates, Novel, and the Par Entities, in the U.S. District Court for the District of New Jersey, in each action alleging patent infringement and seeking injunctive and other relief. In December 2012, the Company and Purdue Pharma agreed to voluntarily dismiss the action against Watson following its withdrawal of its ANDA. After receiving the supplemental notifications referenced above, the Company and Purdue Pharma amended their pending complaints against Actavis and Novel to also allege infringement of the ‘131 and ‘809 patents, as well as the ‘628 patent previously asserted against those companies. The actions against the Par Entities alleged infringement of the ‘131 and ‘809 patents. In September 2013, the Company and Purdue Pharma agreed to voluntarily dismiss the action against one of the two Par Entities, Par Formulations Private Ltd., following that Par Entity’s withdrawal of its ANDA. The action against the other Par Entity, Par Pharmaceutical, Inc., remains pending and continues to allege infringement of the ‘131 and ‘809 patents.

On November 24, 2014, the Company joined Purdue in filing a stipulation with Par Pharmaceutical in the Consolidated Action (described below) that (a) the Company, Purdue, and Par agreed be bound by any final judgment in the Consolidated Action concerning the validity or enforceability of the ‘131 patent, and (b) Par agreed to stipulate to infringement of any claim of the ‘131 patent asserted against it. Par’s then-pending motion for summary judgment was denied (as it was, on November 25, 2014). Under the stipulation, the Company,
Purdue, and Par agreed to stay the New Jersey action against Par. The Court entered the stipulation on November 25, 2014.

In April 2013, the Company joined Purdue Pharma in filing an action in the U.S. District Court for the District of New Jersey against Dr. Reddy’s, alleging patent infringement of the ‘628, ‘131 and ‘809 patents, and seeking injunctive and other relief. The New Jersey court has consolidated the Company’s actions against each of the above-referenced generic companies into a single action (the “Consolidated Action”).

In August 2013, the Company joined Purdue Pharma in filing two actions against TWi. The first action against TWi was filed on August 20, 2013 in the U.S. District Court for the District of New Jersey, and the second action against TWi was filed on August 22, 2013 in the U.S. District Court for the Northern District of Illinois. Each action alleges patent infringement of the ‘131 and ‘809 patents, and seeks injunctive and other relief. On October 17, 2013, TWi filed answers and counterclaims in both New Jersey and Illinois, in both cases seeking declarations of non-infringement and invalidity as to the ‘945, ‘628, ‘131, and ‘809 patents, as well as other relief. On January 13, 2014, the Illinois action against TWi was stayed pending dismissal of the New Jersey action against TWi, or further order of the Illinois court. On January 24, 2014, the Company and Purdue provided TWi with a covenant not to sue TWi based on its current ANDA formulation under the ‘945 or ‘628 patents, and on February 28, 2014, the Company and Purdue filed a motion to dismiss TWi’s counterclaims pertaining to the ‘945 or ‘628 patents based on the tendering of that covenant not to sue. On April 9, 2014, the New Jersey court denied the motion of the Company and Purdue. On July 22, 2014, the New Jersey court entered a consent decree and partial final judgment of non-infringement in TWi’s favor on the ‘945, ‘628, and ‘809 patents. The action against TWi remains pending as to the ‘131 patent.

On February 26, 2014, the United States District Court for the District of New Jersey (the “District Court”) consolidated the Company’s action against TWi with the existing Consolidated Action against Actavis, Novel, Par Pharmaceutical, and Dr. Reddy’s. On November 26, 2014, the Company joined Purdue in filing a stipulation with TWi in the Consolidated Action that (a) the Company, Purdue, and TWi agreed to be bound by any final judgment in the Consolidated Action concerning the infringement, validity, or enforceability of the ‘131 patent, (b) TWi agreed to stipulate to infringement of any claim of the ‘131 patent asserted against it that any defendant in the Consolidated Action was found to infringe and (c) TWi would be deemed not to infringe any such claim that all defendants in the Consolidated Action were found not to infringe. Under the stipulation, the Company, Purdue, and TWi agreed to stay the New Jersey action against TWi. The District Court entered the stipulation on December 1, 2014.

The District Court held a consolidated trial between December 1, 2014 and December 15, 2014 involving Paratek, Purdue, and their patent infringement claims against Actavis, Novel, and Dr. Reddy’s. The District Court then received post-trial briefing and held a February 13, 2015 post-trial hearing. On March 27, 2015, the District Court issued an order and accompanying opinion finding that: (a) the asserted claims of the ‘628 patent, the ‘131 patent, and ‘809 patent are invalid as obvious; (b) Actavis, Novel, and Dr. Reddy’s infringe the ‘131 patent; (c) Novel infringes the ‘628 patent; and (d) Novel and Dr. Reddy’s infringe the ‘809 patent. The Court’s March 27, 2015 order also directed the parties to submit a proposed form of final judgment consistent with the District Court’s findings. We are considering our options in response to the District Court’s findings; however, we do not currently expect that this ruling will adversely affect our financial condition or our business. As a result of the Court’s findings, we anticipate that the intangible assets representing Intermezzo product rights will be impaired and the related contingent obligation will be reduced during the first quarter of 2015 in light of an expected decline in Intermezzo sales. See Note 3—Merger Agreement for description of the Intermezzo product rights and related contingent obligations.

**Patent Term Adjustment Suit**

In January 2013, the Company and Purdue Pharma filed suit in the Eastern District of Virginia against the United States Patent and Trademark Office, or USPTO, in connection with certain changes to the Leahy-Smith America Invents Act. The Company and Purdue Pharma are seeking a recalculation of the patent term adjustment of the ‘131 Patent. Purdue Pharma has agreed to bear the costs and expenses associated with this litigation. In
June of 2013, the judge granted a joint motion to stay the proceedings pending decisions in a number of appeals to the Federal Circuit, including Novartis AG v. Lee 740 F.3d 593 (Fed. Cir. 2014) on which an opinion was issued in January 2014. Since having issued final rules implementing another case filed by Novartis, the USPTO has been working through the civil action cases in order received and issuing remand decisions. The Company’s case is on remand until the USPTO makes its decision on the recalculation of the patent term adjustment.

**Stockholder Suit**

On October 2, 2014, Continuum Capital, on behalf of itself and a putative class of similarly situated stockholders of the Company, filed a lawsuit in the California Superior Court for Contra Costa County (the “Superior Court”) against the Company and its then current board members (only one of whom remains as a director) as well as against the entity then known as Paratek Pharmaceuticals, Inc. (“Old Paratek”), which merged with a wholly-owned subsidiary of the Company on October 30, 2014. The complaint alleges that the Company’s board members breached fiduciary duties to stockholders in connection with the Company’s merger transaction with Old Paratek announced on June 30, 2014, and that the Company and its board of directors failed to make adequate disclosures in soliciting stockholder approval of the merger transaction, and that Old Paratek aided and abetted the alleged breaches. After expedited discovery, the parties agreed in principal to a settlement and release of all claims by a defined class of pre-merger stockholders of the Company. In furtherance of the settlement, the Company supplemented its disclosures regarding the merger transaction and agreed to pay negotiated plaintiffs’ attorneys’ fee of $0.6 million. The settlement is subject to court approval of the settlement and fee award, and a dismissal of the action with prejudice. Defendants deny any wrongdoing and agreed to settle the action to eliminate the burden and expense of further litigation. On March 4, 2015, the Superior Court entered a preliminary approval order setting May 21, 2015 for the final settlement hearing and directed that notice be provided to the class. In the event the settlement is not consummated, the Company intends to vigorously defend all claims asserted.

From time to time the Company is involved in legal proceedings arising in the ordinary course of business. The Company believes there is no other litigation pending that could have, individually or in the aggregate, a material adverse effect on its results of operations or financial condition. The Company does not believe that any of the above matters will result in a liability that is probable or estimable at December 31, 2014.

16. **401(k) Savings Plan**

The Company maintains a defined-contribution savings plan under Section 401(k) of the Internal Revenue Code (the “401(k) Plan”). The 401(k) Plan covers all employees who meet defined minimum age and service requirements, and allows participants to defer a portion of their annual compensation on a pretax basis. The Plan provides for matching contributions on a portion of participant contributions pursuant to the 401(k) Savings Plan’s matching formula. All matching contributions and participant contributions vest immediately. Contributions totaled $0.1 million and $0.1 million for the years ended December 31, 2014 and 2013, respectively, and have been recorded in the consolidated statements of operations.

17. **Subsequent Events**

**Shelf Registration**

On January 12, 2015, the Company filed a registration statement on Form S-3 with the Securities and Exchange Commission to sell shares of Company common stock, par value $0.001 per share, in an aggregate amount of up to $200.0 million to the public in a registered offering or offerings.

**Stock Option Plan Activity**

An evergreen provision in the Company’s 2006 Stock Option Plan resulted in an additional 125,000 shares of the Company’s common stock becoming available for issuance on January 1, 2015.
In February 2015, the Company’s Board of Directors granted 87,000 restricted stock units to executives and employees of the Company and 299,769 stock options to directors, an executive, employees and a consultant to the Company under the 2006 Plan with time vesting provisions ranging from one to four years. The Company’s Board of Directors also adopted a 2015 Inducement Plan in accordance with NASDAQ Rule 5635(c)(4), reserving 360,000 shares of common stock solely for the grant of inducement stock options to new employees, and granting 160,000 options under the plan to an executive of the Company with four-year time vesting provisions. Further, in February 2015 the Company’s Board of Directors modified the vesting terms attendant to eight grants to four executives of the Company aggregating 483,114 options previously granted under the 2014 Plan from strictly time-based vesting to include certain performance-based vesting terms.
Pricewaterhouse Coopers LLP

On April 17, 2014, PricewaterhouseCoopers LLP, or PwC, resigned as the independent registered public accounting firm for Paratek Pharmaceuticals, Inc.

The reports of PwC on our financial statements for the years ended December 31, 2011 and 2010, contained no adverse opinion or disclaimer of opinion and were not qualified or modified as to uncertainty, audit scope or accounting principles, except that the audit report of PwC on our financial statements for the year ended December 31, 2011 contained an explanatory paragraph which noted that there was substantial doubt about our ability to continue as a going concern. PwC has not audited any of our financial statements of as of any date or for any period subsequent to December 31, 2011.

During the two most recent fiscal years ended prior to PwC's resignation, December 31, 2013 and 2012, and through April 17, 2014, (i) there were no disagreements with PwC on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure that, if not resolved to the satisfaction of PwC, would have caused them to make reference thereto in their report on our financial statements for such years, and (ii) there were no reportable events (as defined in Regulation S-K 304(a)(1)(v)).

We furnished a copy of the above disclosures to PwC and requested that PwC provide a letter addressed to the U.S. Securities and Exchange Commission stating whether or not it agrees with the statements made above. A copy of the letter from PwC dated April 1, 2015 is filed as Exhibit 16.2 to this Form 10-K.

Mayer Hoffman McCann

Effective May 19, 2014, we engaged Mayer Hoffman McCann P.C., Hoffman, as our independent registered public accounting firm. During the two most recent fiscal years ended, prior to PwC's resignation, December 31, 2013 and 2012, and through May 19, 2014, we did not consult with Mayer Hoffman regarding either (i) the application of accounting principles to a specific transaction, completed or proposed, or the type of audit opinion that might be rendered on the Company’s financial statements, and neither a written report nor oral advice was provided to us that was an important factor considered in reaching a decision as to accounting, auditing or financial reporting issues; or (ii) any matter that was either the subject of a disagreement, as that term is defined in Regulation S-K 304(a)(1)(iv) and the related instructions to Regulation S-K 304, or a reportable event, as that term is defined in Regulation S-K 304(a)(1)(v).

On August 19, 2014, Mayer Hoffman resigned as our independent registered public accounting firm. There were (i) no disagreements with Hoffman on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure that, if not resolved to the satisfaction of Hoffman, and (ii) no reportable events (as defined in Regulation S-K 304(a)(1)(v)).

We furnished a copy of the above disclosures to Hoffman and requested that Hoffman provide a letter addressed to the U.S. Securities and Exchange Commission stating whether or not it agrees with the statements made above. A copy of the letter from Hoffman dated April 1, 2015 is filed as Exhibit 16.3 to this Form 10-K.

CohnReznick LLP

Effective August 19, 2014, we engaged CohnReznick LLP, or CohnReznick, as our independent registered public accounting firm. During the two most recent fiscal years ended, prior to Hoffman’s resignation, December 31, 2013 and 2012, and through the date of August 19, 2014, we did not consult with CohnReznick, regarding either (i) the application of accounting principles to a specific transaction, completed or proposed, or the type of audit opinion that might be rendered on our financial statements, and neither a written report nor oral
advice was provided to us that was an important factor considered in reaching a decision as to accounting, auditing or financial reporting issues; or (ii) any matter that was either the subject of a disagreement, as that term is defined in Regulation S-K 304(a)(1)(iv) and the related instructions to Regulation S-K 304, or a reportable event, as that term is defined in Regulation S-K 304(a)(1)(v).

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

Our management evaluated, with the participation and under the supervision of our Chief Executive Officer and our Chief Financial Officer, the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Annual Report on Form 10-K. Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer have concluded that our disclosure controls and procedures are effective.

Management’s Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. We maintain a system of internal control that is designed to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of consolidated financial statements for external purposes in accordance with generally accepted accounting principles.

Notwithstanding that we do not qualify for the relief afforded by Instruction 1 to Item 308 of Regulation S-K to newly public companies, management has not assessed nor attested to our internal control over financial reporting as is set forth in Item 308 of Regulation S-K promulgated under the Securities Exchange Act 1934, as amended, and Section 404 of the Sarbanes-Oxley Act as of December 31, 2014, the end of our last fiscal year. We will do so initially as of December 31, 2015.

We were unable to conduct the required assessment primarily due to the Merger occurring in the fourth quarter of 2014 and the substantial change in operational focus, management and the internal control environment following the Merger. Following the Merger, Paratek’s historical operations, and not that of Transcept, represent virtually the entirety of the combined business. In addition, following the Merger the accounting and financial systems of Transcept, as well as personnel, were replaced by those of Paratek. Due to the extensive changes to our internal control environment, it was impractical for us to develop, implement, refine, test, assess our internal control environment and produce management’s assessment of internal control over financial reporting as required by Item 308 of Regulation S-K.

Changes in Internal Control over Financial Reporting

Other than as discussed above, there have not been any changes in our internal controls over financial reporting (as such item is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during our fiscal quarter ended December 31, 2014 that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

Inherent Limitations on the Effectiveness of Controls

A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the controls are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues, if any, within a company have been detected. Accordingly, our controls and procedures are designed to provide reasonable, not absolute, assurance that the objectives of our control system are met.

Item 9B. Other Information

None.
PART III

The information required by Part III is omitted from this report because we will file a definitive proxy statement within 120 days after the end of our 2014 fiscal year pursuant to Regulation 14A for our 2015 Annual Meeting of Stockholders, or the 2015 Proxy Statement, and the information to be included in the 2015 Proxy Statement is incorporated herein by reference.

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item will be contained in the 2015 Proxy Statement and is hereby incorporated by reference.

Section 16(a) Beneficial Ownership Reporting Compliance

The information required by this item will be contained in the 2015 Proxy Statement and is hereby incorporated by reference.

Code of Business Conduct and Ethics

Our board of directors has adopted a code of business conduct and ethics. The code of business conduct applies to all of our employees, officers and directors. The full texts of our codes of business conduct and ethics are posted on our website at http://www.paratekpharm.com under the Investor Relations section. We intend to disclose future amendments to our codes of business conduct and ethics, or certain waivers of such provisions, at the same location on our website identified above and also in public filings. The inclusion of our website address in this report does not include or incorporate by reference the information on our website into this report.

Item 11. Executive Compensation

The information required by this item will be contained in the 2015 Proxy Statement and is hereby incorporated by reference.


Except as set forth below, the information required by this Item 12 is incorporated by reference to our Proxy Statement to be filed with the Commission within 120 days of the end of our fiscal year pursuant to General Instruction G(3) to Form 10-K.

The following table provides certain information with respect to all of our equity compensation plans in effect as of December 31, 2014.

<table>
<thead>
<tr>
<th>Plan Category</th>
<th>Number of Securities to be Issued Upon Exercise of Outstanding Options and Warrants</th>
<th>Weighted-Average Exercise Price of Outstanding Options and Warrants</th>
<th>Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans</th>
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<tbody>
<tr>
<td>Equity compensation plans approved by stockholders(1)</td>
<td>781,573(2)</td>
<td>$4.30(3)</td>
<td>443,077(4)</td>
</tr>
<tr>
<td>Equity compensation plans not approved by stockholders</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Total</td>
<td>781,573</td>
<td>$4.30</td>
<td>443,077</td>
</tr>
</tbody>
</table>
(1) The number of authorized shares under the Amended and Restated 2006 Equity Incentive Plan, or the 2006 Plan, automatically increases on January 1 of each year by a number of shares equal to the lesser of (i) 125,000 shares, (ii) 5.0% of the outstanding shares on the last day of the immediately preceding fiscal year, or (iii) an amount determined by the Board of Directors.

(2) Includes 781,573 shares relating to outstanding options.

(3) Represents the weighted-average exercise price of outstanding options.

(4) Includes 36,539 shares available under the 2009 Employee Stock Purchase Plan, 380,079 shares available under the 2006 Plan and 26,459 shares available under the 2014 Equity Incentive Plan.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item will be contained in the 2015 Proxy Statement and is hereby incorporated by reference.

Item 14. Principal Accountant Fees and Services

The information required by this item will be contained in the 2015 Proxy Statement and is hereby incorporated by reference.
Item 15. Exhibits and Financial Statement Schedules

(a)(1) Financial Statements

See Index to Financial Statements under Item 8.

(a)(2) Financial Statement Schedules

Financial statement schedules are omitted because they are not applicable or are not required or the information required to be set forth therein is included in the Financial Statements or notes thereto.

(a)(3) Exhibits

The exhibits listed in the Exhibit Index at the end of this Annual Report on Form 10-K are filed or incorporated by reference as part of this report.

(b) Exhibits

See Exhibits listed under Item 15(a)(3) above.

(c) Financial Statement Schedules

Financial statement schedules are omitted because they are not applicable or are not required or the information required to be set forth therein is included in the Financial Statements or notes thereto.
SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Boston, State of Massachusetts, on the 2nd day of April, 2015.

Paratek Pharmaceuticals, Inc.

By: /s/ Michael F. Bigham

Michael F. Bigham

Chairman and Chief Executive Officer
POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints each of Michael F. Bigham and Douglas W. Pagán his true and lawful attorney-in-fact and agent, with full power of substitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this annual report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has executed this Power of Attorney as of the date indicated opposite his name.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

<table>
<thead>
<tr>
<th>Signature</th>
<th>Title</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>/s/ Michael F. Bigham</td>
<td>Chairman of the Board of Directors and Chief Executive Officer (Principal Executive Officer)</td>
<td>April 2, 2015</td>
</tr>
<tr>
<td>/s/ Douglas W. Pagán</td>
<td>Chief Financial Officer (Principal Financial and Accounting Officer)</td>
<td>April 2, 2015</td>
</tr>
<tr>
<td>/s/ Evan Loh</td>
<td>President, Chief Medical Officer and Director</td>
<td>April 2, 2015</td>
</tr>
<tr>
<td>/s/ Thomas J. Dietz</td>
<td>Director</td>
<td>April 2, 2015</td>
</tr>
<tr>
<td>/s/ Richard J. Lim</td>
<td>Director</td>
<td>April 2, 2015</td>
</tr>
<tr>
<td>/s/ Robert Radie</td>
<td>Director</td>
<td>April 2, 2015</td>
</tr>
<tr>
<td>/s/ Jeffrey Stein</td>
<td>Director</td>
<td>April 2, 2015</td>
</tr>
<tr>
<td>Exhibit No.</td>
<td>Exhibit Description</td>
<td>Schedule/ Form</td>
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<tr>
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<tr>
<td>2.1</td>
<td>Agreement and Plan of Merger and Reorganization by and among Transcept Pharmaceuticals, Inc., Tigris Merger Sub, Inc., Tigris Acquisition Sub, LLC and Paratek Pharmaceuticals, Inc. dated as of June 30, 2014.</td>
<td>Form 8-K</td>
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<tr>
<td>3.1</td>
<td>Amended and Restated Certificate of Incorporation.</td>
<td>Form 8-K</td>
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<tr>
<td>3.2</td>
<td>Certificate of Amendment of Restated Certificate of Incorporation.</td>
<td>Form 8-K</td>
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<tr>
<td>3.3</td>
<td>Amended and Restated Bylaws.</td>
<td>Form S-3</td>
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<td>3.3</td>
<td>Certificate of Designation of Series A Junior Participating Preferred Stock.</td>
<td>Form 8-K</td>
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<tr>
<td>4.1</td>
<td>Specimen Common Stock Certificate.</td>
<td>Form S-3</td>
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<td>4.2</td>
<td>Tax Benefit Preservation Plan and related documents between the Company and American Stock Transfer &amp; Trust Company, LLC dated as of September 13, 2013.</td>
<td>Form 8-K</td>
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<td>10.1+</td>
<td>2001 Stock Option Plan and Forms of Agreements relating thereto.</td>
<td>Form S-1</td>
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<td>10.2A+</td>
<td>2006 Incentive Award Plan, as amended and restated.</td>
<td>Form 8-K</td>
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<td>10.2B+</td>
<td>Form of Stock Option Grant Notice and Stock Option Agreement under 2006 Incentive Award Plan.</td>
<td>Form S-8</td>
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<td>10.3+</td>
<td>Form of Restricted Stock Unit Award Grant Notice and Form of Restricted Stock Unit Award Agreement under the 2006 Incentive Award Plan, as amended.</td>
<td>Form 8-K</td>
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<td>10.4+</td>
<td>2009 Employee Stock Purchase Plan.</td>
<td>Form 8-K</td>
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<td>10.5A+</td>
<td>2014 Equity Incentive Plan, as amended.</td>
<td>Form S-8</td>
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<td>Exhibit No.</td>
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<td>10.5B+</td>
<td>Form of Option Agreement under the 2014 Equity Incentive Plan, as amended.</td>
<td>Form S-8</td>
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<td>10.6B+</td>
<td>Form of Stock Option Grant Notice and Form of Option Agreement under the 2015 Inducement Plan.</td>
<td>Form 8-K</td>
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<td>10.7*</td>
<td>Assignment, Assumption, Amendment and Consent by and between the Company and King Real Estate Corporation for sixth floor at 75 Kneeland Street, Boston, Massachusetts, dated September 1, 2001, as amended.</td>
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<td>10.8+</td>
<td>Fourth Amended and Restated Director Equity Compensation Policy.</td>
<td>Form 10-Q</td>
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<td>10.9</td>
<td>Form of Indemnification Agreement between the Company and its executive officers and directors.</td>
<td>Form 8-K</td>
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<tr>
<td>10.10†</td>
<td>United States License and Collaboration Agreement by and between the Company and Purdue Pharmaceutical Products L.P., dated as of July 31, 2009.</td>
<td>Form 10-Q</td>
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<tr>
<td>10.11†</td>
<td>First Amendment to the United States License and Collaboration Agreement by and between the Company and Purdue Pharmaceutical Products L.P., dated as of November 1, 2011.</td>
<td>Form 10-K</td>
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<tr>
<td>10.13†</td>
<td>Letter Agreement by and between the Company and LP Clover Limited, dated as of July 31, 2009.</td>
<td>Form 10-Q</td>
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<tr>
<td>10.14†</td>
<td>License Agreement by and between the Company and Shin Nippon Biomedical Laboratories, Ltd., dated as of September 24, 2013.</td>
<td>Form 10-Q</td>
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<td>Exhibit No.</td>
<td>Exhibit Description</td>
<td>Schedule/ Form</td>
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<td>10.16††*</td>
<td>Collaborative Research and License Agreement by and between the Company and Warner Chilcott, dated as of July 2, 2007.</td>
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<td>10.17††*</td>
<td>License Agreement by and between the Company and Tufts University dated as of February 1, 1997, as amended.</td>
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<td>10.18+*</td>
<td>Employment Agreement, as amended, by and between the Company and Doug Pagán dated as of February 4, 2015.</td>
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<td>10.21*</td>
<td>Warrant, dated as of April 13, 2006 issued to Hercules Technology Growth Capital, Inc.</td>
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<td>10.22*</td>
<td>Warrant, dated as of April 7, 2014 issued to HBM Healthcare Investments (Cayman) Ltd.</td>
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<td>10.23*</td>
<td>Warrant, dated as of April 18, 2014 issued to K/S Danish BioVenture.</td>
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<td>10.24*</td>
<td>Warrant, dated as of April 7, 2014 issued to Omega Fund III, L.P.</td>
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<td>16.1</td>
<td>Notice Regarding Change in Certifying Accountant.</td>
<td>Form 8-K</td>
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<td>16.2*</td>
<td>Letter from Pricewaterhousecoopers L.L.P to the Securities and Exchange Commission dated as of April 1, 2015</td>
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<tr>
<td>16.3*</td>
<td>Letter from Mayer Hoffman McCann, PC. to the Securities and Exchange Commission dated as of April 1, 2015</td>
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<td>21.1*</td>
<td>Subsidiaries of the Company.</td>
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<td>23.1*</td>
<td>Consent of CohnReznick LLP, Independent Registered Public Accounting Firm.</td>
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<td>31.1*</td>
<td>Certification of the Company’s Chief Executive Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities and Exchange Act of 1934, as amended, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</td>
<td></td>
</tr>
</tbody>
</table>
# Table of Contents

<table>
<thead>
<tr>
<th>Exhibit No.</th>
<th>Exhibit Description</th>
<th>Schedule/ Form</th>
<th>File Number</th>
<th>Exhibit</th>
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<td>31.2*</td>
<td>Certification of the Company’s Chief Financial Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities and Exchange Act of 1934, as amended, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</td>
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<td>32.1*</td>
<td>Certification of the Company’s Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</td>
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<td>32.2*</td>
<td>Certification of the Company’s Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</td>
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<td>101.INS*</td>
<td>XBRL Instance Document.</td>
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<td>101.CAL*</td>
<td>XBRL Taxonomy Extension Calculation Linkbase Document.</td>
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<tr>
<td>101.DEF*</td>
<td>XBRL Taxonomy Extension Definition Linkbase Document.</td>
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<td>101.LAB*</td>
<td>XBRL Taxonomy Extension Labels Linkbase Document.</td>
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<td>101.PRE*</td>
<td>XBRL Taxonomy Extension Presentation Linkbase Document.</td>
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* Filed herewith.
† Confidential treatment has been granted as to certain portions, which portions have been omitted and submitted separately to the Securities and Exchange Commission.
†† Confidential treatment has been requested as to certain portions, which have been omitted and submitted separately to the Securities and Exchange Commission.
+ Management contract or compensatory plan, contract or arrangement.
# In accordance with Item 601(b)(32)(ii) of Regulation S-K and SEC Release Nos. 33-8238 and 34-47986, Final Rule: Management’s Reports on Internal Control Over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports, the certifications furnished in Exhibits 32.1 and 32.2 hereto are deemed to accompany this Annual Report on Form 10-K and will not be deemed “filed” for purposes of Section 18 of the Exchange Act. Such certifications will not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the registrant specifically incorporates it by reference.
Exhibit 10.7

ASSIGNMENT, ASSUMPTION, AMENDMENT AND CONSENT

75 Kneeland Street, Lease of 6th Floor

This Assignment, Assumption, Amendment and Consent (this “Agreement”) is made as of September 1, 2001, by and among the TRUSTEES OF TUFTS COLLEGE, a Massachusetts not-for-profit corporation (the “Assignor”), PARATEK PHARMACEUTICALS, INC., a Delaware corporation (“Assignee”) and KING REAL ESTATE CORPORATION, AS TRUSTEE OF KNEELAND STREET REAL ESTATE TRUST (“Landlord”).

Assignor is the tenant under a certain lease dated November 10, 1993, as amended by amendment to lease dated March 31, 1998 (the “Lease”), entered into between Assignor and Landlord consisting of all of the rentable space on the 6th floor of the building located at 75 Kneeland Street in Boston, Massachusetts, containing approximately 15,088 rentable square feet of space (the “Premises”). A copy of the Lease is attached hereto as Exhibit A.

Assignor desires to assign its interest as tenant in the Lease to Assignee, and Assignee desires to accept the assignment thereof.

In accordance with the provisions of the Lease, Landlord’s consent to such assignment is required and Landlord is willing to give such consent subject to the terms and conditions of this agreement.

Now, therefore, in consideration of the promises and conditions contained herein, the parties hereby agree as follows:

1. Assignment. Assignor hereby assigns to Assignee all of its right, title and interest in and to the Lease, and Assignee hereby accepts the assignment, transfer and conveyance of such right, title and interest from the Assignor, at the rentals and upon all the other terms and conditions set forth in the Lease for the unexpired term of the Lease.

2. Assumption. Assignee agrees with Assignor and with Landlord to assume and does hereby assume all of tenant’s obligations under the Lease arising from and after the date hereof, including the payment of all rent, additional rent and other financial obligations of the tenant as set forth in the Lease and further assumes liability and responsibility for the due punctual performance of all the covenants, terms, conditions and provisions to be kept, observed and performed by the tenant as set forth in the Lease arising from and after the date hereof.

3. Assignor’s Obligations. Notwithstanding any other provisions of this Agreement, Assignor affirms and agrees that it shall remain fully and primarily liable to Landlord for the payment and performance of all obligations of the tenant under the Lease and that this Agreement shall not relieve Assignor of such liability; provided, however, that Assignor shall not be bound by any modifications to the Lease which are made without Assignor’s prior written consent and Assignor shall not be bound by the amendment to Article 35 of the Lease set forth in Section 8 of this Assignment (“Revised Article 35”).

4. Indemnity. Assignor hereby agrees to indemnify and hold Assignee harmless from and against all claims, demands, losses, damages, expenses and costs including, but not limited to,
reasonable attorneys’ fees and expenses actually incurred, arising out of or in connection with Assignor’s failure, prior to the date of this Assignment, to observe, perform and discharge each and every one of the covenants, obligations and liabilities of the tenant under the Lease, to be observed, performed or discharged on, or relating to, or accruing with respect to the period prior to the date of this Assignment.

Assignee hereby agrees to indemnify and hold Assignor harmless from and against all claims, demands, losses, damages, expenses and costs including, but not limited to, reasonable attorneys’ fees and expenses actually incurred, arising out of or in connection with Assignee’s failure, from and after the date of this Assignment, to observe, perform and discharge each and every one of the covenants, obligations and liabilities of the tenant under the Lease, to be observed, performed, or discharged on, or relating to, or accruing with respect to, the period from and after, but not before, the date of this Assignment, including, without limitation, all such covenants, obligations and liabilities under Revised Article 35. In addition, Assignee hereby agrees that its indemnity of Landlord under Section 35.11.1 of Revised Article 35 shall also run in favor of Assignor, substituting “Assignee” for “Tenant” and “Assignor” for “Landlord,” where applicable, including in the definitions of capitalized terms used in said Section 35A 1.1.

5. Certification. Landlord and Assignor hereby certify that: the Lease is in full force and effect; the copy of the Lease attached hereto is true, accurate and complete; there have been no modifications or amendments thereto; Assignor has fulfilled all of its obligations under the Lease and there exist no defaults under the Lease by Assignor; and Landlord has fulfilled all of its obligations under the Lease and there exist no defaults under the Lease by Landlord.

6. Notice. The tenant’s notice address under the Lease shall, from and after this date, be:

Paratek Pharmaceuticals, Inc.
75 Kneeland Street
Boston, MA 02110

7. Landlord’s Costs. Assignee shall pay all of Landlord’s $1,000 fee for its review and approval of this Agreement and shall also reimburse Assignor for reasonable attorneys’ fees and costs actually incurred (not to exceed $1,000) for the review and final execution of this Assignment and obtaining Landlord’s consent to the same.

8. Amendment to Lease. Assignor, Assignee and Landlord hereby agree that the Lease shall be amended, effective as of the date of this Agreement, by deleting the provisions of Article 35 in its entirety (however, such Article 35 shall be in full force and effect with respect to the obligations of the tenant thereunder arising prior to the date hereof), and the following shall be substituted in place thereof:

**35. ENVIRONMENTAL HAZARDS**

35.1. TENANTS USE OF HAZARDOUS MATERIAL.

Tenant and Tenant’s Agents, shall not use, maintain, generate, allow or bring on the Premises or Landlord’s Property or transport or dispose of, on or from the Premises or Landlord’s Property (whether into the ground, into any sewer or septic system, into the
air, by removal off-site or otherwise) any Hazardous Matter (as hereinafter defined), except only for Hazardous Matter of types and in quantities as are used in connection with the chemical, medical or biological research occurring in the laboratories located within the Premises, provided such use and storage is in strict compliance with all Environmental Requirements (as hereinafter defined) and with the provisions of this Article.

35.2 GENERAL STANDARDS OF COMPLIANCE.
Tenant shall inspect, use, store, generate, and dispose of all Hazardous Matter in compliance with all Environmental Requirements and shall cause its agents to so comply. Tenant shall take all reasonable measures to prevent any third party from releasing Hazardous Matter on or in the Premises. Tenant shall not release, or permit to be released, on, in or from the Premises or Property or in connection with Tenant’s use of the Premises any Hazardous Matter in violation of the Environmental Requirements.

35.3. SPECIFIC STANDARDS OF COMPLIANCE.
Without limiting Tenant’s obligations under Section 35.2, Tenant shall comply, and cause Tenant’s Agents to comply, with the specific requirements set forth in this Section 35.3.

35.3.1. New Chemicals. Tenant shall provide advance, premanufacture notice to the federal Environmental Protection Agency of the distribution of new chemicals as required under the Toxic Substances Control Act, 15 U.S.C. §21.01 et seq. and 40 CFR Part 700 to 799, and shall also notify Landlord in writing of same.

35.3.2. Laboratories. Tenant shall comply with 29 CFR Part 910 promulgated under the OSHA pertaining to occupational exposure to hazardous chemicals in laboratories.

35.3.3. Discharges to Sanitary Sewer. Tenant shall obtain an industrial use permit from the Massachusetts Water Resource Authority (“MWRA”) if required to do so by law or regulation and a state sewer permit from the state Division of Water Pollution Control and shall comply with the discharge regulations contained in 314 CMR Part 12 and 360 CMR Part 10 and any pretreatment conditions contained in the applicable sewer permit and shall cause its agents to so comply.

35.3.4. Handling Hazardous Wastes. Tenant shall comply, and shall cause its Agents to comply, with 310 CMR Part 30 and 105 CMR Part 480 relating to the handling, storage, generation, transportation, and disposal of hazardous waste and infectious waste. As soon as Tenant or its agents generates hazardous waste, Tenant shall provide Tenant’s generator number and copies of permits required under 310 CMR Part 30 to Landlord, and shall make available upon oral or written request of Landlord within seven (7) days of the date of such request, copies of all manifests used for the transportation and disposal of hazardous waste.

35.3.5. Inventories of Hazardous Material. Tenant shall comply with all notification, filing, reporting and inventory requirements with respect to Hazardous
Matter at the Premises, and Tenant shall make available to Landlord within seven days of the date of oral or written request: (a) copies of all inventories of Hazardous Matter and safety plans filed with the Fire Department under the Emergency Planning and Community Right-To-Know Act, 42 U.S.C. Section 11001 et seq, and applicable Massachusetts laws, (b) copies of material safety data sheets (“MSDS”) that accompany any product used or stored at the Premises, pursuant to the hazard communications standard under the Occupational Safety and Health Act (“OSHA”) and evidence that the MSDSs have been made available to Tenant employees, (c) reports related to radioactive and biological materials at the Premises, and (d) all other plans and reports required to be prepared pursuant to the Environmental Requirements.

Promptly following the request of Landlord, if Tenant or Tenant’s Agents generate hazardous or infectious waste, Tenant shall provide Tenant’s generator number and copies of permits required under 310 CMR Part 30 and 105 CMR Part 480 to Landlord, and shall make available upon oral or written request of Landlord within 7 days of the date of such request, copies of all manifests used for the transportation and disposal of hazardous and infectious waste.

Promptly following the request of Landlord, if Tenant or Tenant’s Agents generates, treats, stores or transports radioactive material, Tenant shall provide to Landlord all applicable licenses under 42 U.S.C. §2011 et seq. and M.G.L. c.11111, §§1 to 48. Tenant shall handle and dispose of radioactive materials in accordance with 10 CFR Parts 0 to 17, and 105 CMR Parts 120 to 122.

35.4. NOTICES.

Landlord and Tenant shall promptly deliver to the other any notices, orders or similar documents received from any governmental agency or official affecting the Premises and concerning the alleged violation of the Environmental Requirements. Tenant shall give prompt notice to the Landlord of any violation or potential violation of the Environmental Requirements.

35.5. TENANT’S OBLIGATION TO PAY COSTS AND FINES

Tenant shall bear the full cost of, and be solely responsible for, carrying out its obligations under this Article. Tenant shall pay forthwith any fine assessed in connection with any violation by Tenant or its agents of the Environmental Requirements.

Any cost or fine required under this Article to be borne by Tenant not promptly paid by Tenant that Landlord elects to pay shall be reimbursed by Tenant to Landlord within 30 days of written demand therefor and may at Landlord’s election be treated as additional rent hereunder; and Landlord shall have the same rights and remedies for the nonpayment thereof as for the nonpayment of rent.

During the investigation and cleanup of any release and during any restoration, maintenance, or repair work that is the responsibility of Tenant under this Article, Tenant shall continue to pay rent even though part or all of the Premises may be unusable.
35.6. TENANTS RESPONSIBILITY TO CLEAN UP ANY RELEASE.

Upon demand by Landlord (whether oral or written), if Hazardous Matter has been released by Tenant or Tenant’s Agents at or from the Premises, in connection with their use of the Premises or otherwise, Tenant shall take all actions which are necessary to attain cleanup levels in accordance with the Environmental Requirements, to mitigate Environmental Damages, and to allow full economic use of the Premises and Property. These actions shall include, without limitation, investigation and cleanup as may be required under CERCLA, Chapter 21E, RCRA, or Chapter 21C, whichever is applicable. All such investigation and remedial work shall be performed by contractors reasonably acceptable to Landlord in accordance with the Environmental Requirements. Any such action shall be performed in good, safe and workmanlike manner and shall minimize any impact on other tenants occupying the Property and the businesses conducted thereon. Tenant shall promptly provide to Landlord copies of testing results and all other reports.

Following such cleanup, Tenant shall promptly take all actions as are necessary to return the Premises, Property and any areas outside the Premises and Property to the condition existing prior to the presence or introduction of any such hazardous material or oil including the repair of any damage caused by the investigation or remediation.

35.7. REMOVAL.

Tenant shall remove all Hazardous Matter and the containers in which such substances were ever packaged or stored from the Premises prior to the termination of this Lease and prior to vacating; and such removal and disposal of such substances and containers shall be performed in accordance with 310 CMR Part 30.

35.8. INSPECTION.

Three months prior to the termination of this Lease, and if this Lease terminates other than by expiration of the term, within 30 days after the termination, and in all events not later than 30 days after the Tenant vacates the Premises, and at any other time that Landlord reasonably deems appropriate, Tenant shall retain an environmental site assessment firm acceptable to Landlord in its sole discretion who shall complete the following no later than 30 days after the firm is retained: (a) inspect the Premises for storage of hazardous waste, or release of Hazardous Matter in violation this Article; and (b) provide a report on the results of such inspection reasonably satisfactory to Landlord. No testing or sampling of soil, groundwater or building materials shall be performed without Landlord’s prior written approval.

Tenant, through a duly authorized officer if Tenant is a corporation and if Tenant is not a corporation, through a person empowered to bind Tenant, and any employee responsible for the proper handling and disposal of Hazardous Matter, shall give an annual certification, and a certification prior to the termination of this Lease and prior to vacating, to the effect that the requirements of this Article, and any other of the Environmental Requirements for which Landlord has requested a certification, have been satisfied.

- 5 -
35.9. INTENTIONALLY OMITTED.

35.10. SELF HELP.

If Landlord reasonably determines that Tenant has not proceeded diligently to cure any default under this Article within a reasonable time period, as determined by Landlord in its sole, but reasonable, discretion, or in the event of an emergency as determined by Landlord in its sole, but reasonable, judgment, Landlord, in addition to any other remedy under this lease, shall have the right, but not the obligation, to enter upon the Premises and to perform Tenant’s obligations hereunder, including the payment of money and the performance of any other act. All reasonable sums so paid by Landlord and all incidental costs and expenses in connection therewith shall be reimbursed by Tenant to Landlord, promptly following demand therefor, as additional rent. Notwithstanding any such performances by Landlord, Tenant shall remain liable for any violation of the provisions in this Article.

35.11. INDEMNIFICATION.

35.11.1. Tenant’s Indemnification. Tenant and its successors, assigns and guarantors shall release, defend (with an attorney reasonably acceptable to Landlord), indemnify and hold harmless Landlord and its successors and assigns and the officers, directors, stockholders, partners, beneficial owners, trustees, employees, agents, contractors, attorneys, and mortgagees of Landlord or of its successors and assigns or of any of the foregoing from and against all Environmental Damages which may be asserted by Tenant, any other person or entity, or government agency on account of the presence or release of any Hazardous Matter upon, in or from the Premises or Property related to the activities conducted by Tenant or its agents, or to other action by Tenant or its agents in violation of the Environmental Requirements or on account of breach of any of Tenant’s obligations under this Article.

35.11.2. Landlord’s Indemnification. Landlord shall indemnify and hold Tenant harmless from and against all injury, loss, claim or damage relating to the cost of cleanup (including reasonable attorneys’ fees but exclusive of any indirect or consequential damages) arising during or after the Term of this Lease in connection with any release of Hazardous Matter upon, in or from the Premises or Landlord’s Property or other action in violation of Environmental Requirements, where such release or action occurred prior to the Term Commencement Date (or, if earlier, the date of Tenant’s initial entry onto the Premises) or was caused by the Landlord, its agents, employees or contractors after the Term Commencement Date; provided, however, that this indemnification by Landlord expressly excludes any release, action or violation caused in whole or in part by any prior, current or future tenant of the Building or any contractor, agent, employee or invitee of any of same.
35.12. **DEFINITIONS.**

The following terms as used herein shall have the meanings set forth below:

“**Hazardous Matter**” shall mean any substance (i) which is toxic, explosive, corrosive, flammable, infectious, radioactive, carcinogenic, mutagenic, biological or otherwise hazardous substance which is or becomes regulated by any governmental authority, agency, commission or instrumentality of the United States, the Commonwealth of Massachusetts or any political subdivision thereof including city or town in which the Premises are located; or (ii) which is or becomes defined as a “hazardous substance” pursuant to Section 101 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 et seq. (“CERCLA”); as well as any material or substance which is or becomes defined as hazardous material or oil under M.G.L. Ch. 21E (“Chapter 21E”), Section 2 and the Massachusetts Contingency Plan, 310 CMR Part 40; or (iii) which is or becomes a pollutant regulated under the Clean Air Act, 42 U.S.C. Section 7401 et seq. and 40 CFR Parts 50 to 85 or the Massachusetts Clean Air Act, M.G.L. c. 111, Section 142 et seq. and 310 CMR Parts 6 to 8; or (iv) which is or becomes defined as “hazardous waste” below; or (v) the presence of which requires investigation or remediation under any present or future federal, state or local statute, regulation, ordinance, by-law, order, action, policy or common law; or (vi) which contains gasoline, diesel fuel, oil or other petroleum hydrocarbons; or (vii) the presence of which causes or threatens to cause a nuisance or poses or threatens to pose a hazard to the health or safety of persons on or about or adjacent to the Premises or Property.

“**Environmental Damages**” shall mean all liabilities, injuries, losses, claims, damages (whether special, consequential or otherwise), settlements, attorneys’ and consultants’ fees, fines and penalties, interest and expenses, and costs of environmental site investigations, reports and cleanup, including without limitation costs incurred in connection with: any investigation or assessment of site conditions or of health of persons using the Building or Landlord’s Property; risk assessment and monitoring; any cleanup, remedial, removal or restoration work required by any governmental agency or recommended by Landlord’s environmental consultant; any decrease in value of Landlord’s Property; any damage caused by loss or restriction of rentable or usable space in Landlord’s Property; or any damage caused by adverse impact on marketing or financing of Landlord’s Property.

“**Environmental Requirements**” shall mean all Applicable Laws (including without limitation the laws and regulations referenced in this Article), common law principles pertaining to nuisance, tort, and strict liability, the provisions of any and all Approvals, all recommendations by manufacturers, trade associations and governmental bodies, and the terms of this lease; in so far as such laws and regulations, orders, permits and approvals, recommendations, and terms relate to the release, maintenance, use, keeping in place, or disposal of Hazardous Matter, including those pertaining to reporting, licensing, permitting, housekeeping, upgrading of equipment, health and safety of tenant’s agents and other persons, investigation, remediation, and disposal; and shall include both present and future laws and regulations, orders, permits and approvals, recommendations, and rules and regulations.
35.13. OTHER

35.13.1. The provisions of this Article shall be in addition to any other obligations and liabilities Tenant may have to Landlord under this lease or at law or in equity.

35.13.2. In the case of conflict between this Article and other provisions of this Lease, the provisions imposing the most stringent requirement as to Tenant shall control.

35.13.3. The obligations of Tenant under this Article shall survive the expiration or termination of this Lease and the transfer of title to the Property.

9. Utility Closet. Assignee agrees that Assignor may, at reasonable times and upon reasonable notice, (except that advanced notice shall not be required in event of an emergency) access the utility closet located in the Premises currently housing Assignor’s telephone center (the “Utility Closet”) at any time during the remaining term of the Lease and to continue to maintain voice and/or data communications equipment in the Utility Closet. Assignor shall maintain a comprehensive general liability policy in reasonable amounts as well as a policy covering Assignor’s fixtures, property and equipment installed in the Utility Closet, which policies shall name Assignee as an additional insured. Assignor hereby consents to Assignee’s relocation of the Utility Closet within the Premises, at Assignee’s sole cost and expense, subject to prior approval by Landlord, as required by the Lease. Notwithstanding any provisions in the Lease or this Assignment to the contrary, Assignor shall, at its sole cost and expense, at the end of the remaining term of the Lease, remove its property from the Utility Closet in accordance with the terms of the Lease. The foregoing arrangement is between Assignor and Assignee and does not affect in any way the Lease or the obligations of Assignee to Landlord under the Lease.

10. Landlord’s Consent. Landlord hereby consents to the foregoing assignment of the Lease by Assignor to Assignee.

11. Ratification. The Lease, as amended by this Agreement, is hereby ratified and confirmed by the parties.

12. Binding. This Agreement shall be binding upon and inure to the benefit of the parties hereto, their heirs, executors, administrators, successors, in interest and assigns.

[signatures on next following page]
In witness whereof, the undersigned have duly executed this Agreement as of the day and year first above written.

ASSIGNOR:
TRUSTEES OF TUFTS COLLEGE

By: /s/ Steven S. Manos
    Name: Steven S. Manos
    Title: Executive V.P
    Duly authorized

ASSIGNEE:
PARATEK PHARMCEUTICALS, INC.

By: /s/ George Hillman
    Name: George C. Hillman
    Title: Executive Vice President
    Duly authorized

LANDLORD:
KING REAL ESTATE CORPORATION,
As Trustee of
KNEELAND STREET REAL ESTATE TRUST
and Not Individually

By: /s/ Karl Greenman
    Name: Karl Greenman
    Title: President and Treasurer
    Duly authorized
LEASE
of
6th Floor, 75 Kneeland Street, Boston, MA

This lease (hereinafter “Lease”), entered into by and between:

KING REAL ESTATE CORPORATION, a Massachusetts corporation, Trustee of KNEELAND STREET REAL ESTATE TRUST under Declaration of Trust dated April 1, 1980, filed with Registry District of Suffolk County as Document No. 351241 and noted on Certificate of Title No. 92936 (hereinafter “Landlord”),

and

TRUSTEES OF TUFTS COLLEGE, a Massachusetts nonprofit corporation with a present mailing address of Ballou Hall, Medford, Massachusetts 02155, Attention: Executive Vice President (hereinafter “Tenant”).

In consideration of the rents, covenants and agreements hereinafter reserved and contained on the part of Tenant to be observed and performed, Landlord demises and leases to Tenant and Tenant leases from Landlord the following premises upon the following terms, covenants and conditions.

1. DEMISED PREMISES

The demised premises consisting of the entire sixth floor of the building (hereinafter “Building”) located at 75 Kneeland Street, Boston, Massachusetts, which demised premises are shown on Exhibit A attached hereto, containing 15,088 square feet of rentable floor area (hereinafter the “Premises”). Said Building contains an aggregate total rentable area of 211,232 square feet.

Tenant shall have, as appurtenant to the Premises, the non-exclusive right and easement to use in common with others entitled thereto (a) common facilities (hereinafter “Common Facilities”) in the Building and on the land on which it is located (said Building and land are hereinafter “Landlord’s Property”) including without limitation, sidewalks, lobbies, hallways, stairways, entranceways, exterior spaces, common washrooms and such other facilities available to all tenants of the Building as may be designated from time to time by the Landlord (subject to the last sentence of this paragraph), and (b) the pipes, ducts, conduits, utility lines, wires, sewerage system and appurtenant equipment serving the Premises. Tenant’s rights hereunder shall always be subject to the reasonable rules and regulations from time to time established by Landlord, as provided in Section 23B hereof, provided such rules and regulations shall not materially interfere with Tenant’s Permitted Use (hereinafter defined) of the Premises. Landlord reserves and shall have the unrestricted right to change the location, size or character of any of the Common Facilities, provided such changes do not materially decrease the size of the Premises or materially adversely affect Tenant’s use of the Premises for the Permitted Use.

EXCEPTED AND EXCLUDED from the Premises are the exterior walls and any space currently or (if same does not materially decrease the size of the Premises or materially adversely affect Tenant’s use of the Premises for the Permitted Use) in the future necessary to install,
maintain and operate, by means of pipes, ducts, wires, meters, vents, flues, conduits, utility lines, fan rooms, shafts, stacks, utility closets, janitor closets, stairways or otherwise those utilities and services required for Landlord’s Property, Common Facilities thereof and tenant premises (including the Premises). Landlord, its agents, contractors and employees shall have the right of access to and entry on the Premises for the purposes of such installation, maintenance or operation or for the purposes of making repairs, alterations or additions to the Premises or to the Building if Landlord so elects. Except in cases of emergency, Landlord shall exercise the foregoing rights upon reasonable notice to the Tenant and in such a manner as not to interfere unreasonably with Tenant’s use of the Premises between the hours of 8:00 a.m. and 6:00 p.m. Monday through Friday and between the hours of 8:00 a.m. and 1:00 p.m. on Saturday, excluding all legal holidays (hereinafter “Business Hours”). Landlord further reserves the right to change the street address and the name of the Building at any time and from time to time upon sixty (60) days prior notice to Tenant, without liability to Tenant.

2. TERM

2.1 Term. Subject to the conditions herein stated, Tenant shall hold the Premises for a term of approximately five (5) years (hereinafter the “Term” or the “original Term”) commencing on the later of (i) the Substantial Completion Date (as defined in Article 3) or (ii) January 1, 1994 (the later of such dates being hereinafter referred to as the “Term Commencement Date”) and terminating December 31, 1998. The Term may be extended by Tenant upon and subject to the terms of Article 41 hereof, in which event the “Term”, as used herein, shall include the original Term together with the extension period.

3. CONSTRUCTION AND CONDITION OF THE PREMISES

3.1 Condition of Premises. Except for the construction of the Initial Tenant Improvements as provided herein, the Tenant accepts the Premises and the Building in their present “as is” condition, without representation or warranty, express or implied, in fact or in law, by Landlord and without recourse to Landlord as to the nature, condition or usability thereof and agrees that Landlord has no work to perform in or on the Premises; and Tenant agrees further that any and all work to be done in or on the Premises (except as provided herein with respect to the construction of the Initial Tenant Improvements and for those items of repair and other work which are expressly the responsibility of Landlord hereunder) will be at Tenant’s sole cost and expense.

3.2 The Initial Tenant Improvements.

(a) Tenant has provided Landlord with preliminary plans, and based upon such plans Landlord has caused its architect to prepare final plans and specifications (the “Plans”) for the layout of Tenant’s leasehold improvements to a portion of the Premises (the “Initial Premises”) as depicted on such Plans (the “Initial Tenant Improvements”). The Plans have been approved by the Tenant and are attached hereto as Exhibit B. The Initial Tenant Improvements shall not include Tenant’s furniture, trade fixtures, equipment and property and are limited to normal fit-up construction as depicted on the Plans. It is agreed that the Initial Tenant Improvements shall not include, and Landlord shall not be responsible for, any construction or build-out except within the Initial Premises, and (except only for the work described in clause 3 below) the
balance of the Premises (the “Balance of the Premises”) shall be delivered to the Tenant in its current “as is” condition. As part of the Initial Tenant Improvements, Landlord shall also perform the following work on the sixth floor of the Building:

1. The refinishing of the common restrooms, including making accessibility improvements thereto;
2. The refinishing of the common hallway; and
3. The installation of new thermopane windows in both the Initial Premises and in the Balance of the Premises.

Landlord agrees to remove, encapsulate or abate any asbestos in concentrations greater than one percent (1%) found in the Initial Premises during the process of the construction of the Initial Tenant Improvements; however, the foregoing shall not require Landlord to test the Premises or any portion thereof for the presence of asbestos and shall be limited to the removal, encapsulation or abatement of materials actually known by Landlord to contain such concentrations of asbestos.

Landlord agrees, in constructing the Initial Tenant Improvements, to reasonably cooperate with Tenant in coordinating its work with fit-up work to be performed in the Initial Premises by Tenant, such as telephone and communications cabling and the delivery and set-up of furniture and fixtures, provided such cooperation and coordination does not increase the cost of constructing, or time for completing, the Initial Tenant Improvements.

(b) Based upon the approved Plans, the Landlord shall proceed, promptly upon the execution hereof, using reasonable efforts, to obtain all necessary permits and approvals for the construction of the Initial Tenant Improvements, to engage a contractor to perform the construction and to proceed to complete the construction of the Initial Tenant Improvements in substantial conformance with the Plans. The Initial Tenant Improvements shall be performed in a good and workmanlike fashion using new materials and in a first-class manner; and the Initial Tenant Improvements shall be performed in accordance with, and when completed shall in all respects comply with all Applicable Law (as defined in Article 23) and the terms and conditions of all permits and approvals. Landlord reserves the right to make minor changes and substitutions to the Plans in connection with the construction of the Initial Tenant Improvements, provided same do not materially adversely modify the Plans. Landlord agrees to use all reasonable efforts to substantially complete the Initial Tenant Improvements by December 31, 1993. Landlord agrees to schedule bi-weekly meetings with Tenant during the construction period for the Initial Tenant Improvements in order to update Tenant as to the progress of construction and the estimated time of substantial completion of the work. If the Substantial Completion Date (as defined in subsection (c) below) has not occurred by January 15, 1994, Tenant shall be entitled to a credit against its rent obligations hereunder in the amount of one month’s rent (meaning in such event Tenant’s obligation to pay rent hereunder shall begin on the date one month following the Term Commencement Date). If the Substantial Completion Date has not occurred by June 1, 1994, the Tenant shall have the option to terminate this Lease by giving written notice thereof to Landlord at any time thereafter but prior to the Substantial Completion Date occurring, and this Lease shall thereupon be terminated and of no force and effect.

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(c) The Initial Tenant Improvements shall be deemed substantially complete on the date as of which a certificate of occupancy has been received from the City of Boston and delivered to Tenant and a certificate of Landlord’s architect has been delivered to Tenant stating that the Initial Tenant Improvements have been substantially completed in accordance with subsection (b) above, and only punch-list type items remain to be completed, which punch-list items are to be completed by Landlord as soon as reasonably practicable thereafter (the “Substantial Completion Date”). Notwithstanding the foregoing, if any delay in the substantial completion of the Initial Tenant Improvements by Landlord is due to: (i) any change in the Plans requested by Tenant; (ii) any request by Tenant for a delay in the commencement or completion of the Initial Tenant Improvements for any reason; or (iii) any other act or omission of Tenant or its employees, agents or contractors; then; for the purposes of establishing the Term Commencement Date only, the Substantial Completion Date shall be deemed to be the date the Initial Tenant Improvements would have been substantially completed, if not for the foregoing. Landlord agrees to provide Tenant with the benefit of any manufacturer’s warranties for equipment and fixtures in the Premises, the maintenance and repair of which are Tenant’s responsibility hereunder.

(d) Tenant shall give Landlord specific written notice of any defects or incomplete remaining items of work with respect to the Initial Tenant Improvements, such notice to be given to Landlord not later than the date ten (10) days after the Term Commencement Date. Except with respect to the items contained in such notice, Tenant shall be deemed satisfied with the Initial Tenant Improvements, Landlord shall be deemed to have completed all of its obligations under this Article 3 and Tenant shall have no claim that Landlord has failed to perform in full its obligations hereunder. Landlord agrees to use all reasonable efforts to correct or complete such items of work as soon as reasonably practicable after the Term Commencement Date. Landlord agrees to provide Tenant with the benefit of any warranty or guaranty received by Landlord from the contractor performing the construction of the Initial Tenant Improvements, Landlord agreeing to obtain customary construction warranties from its general contractor. Landlord agrees that if such construction warranties from its general contractor do not include a one year warranty regarding HVAC balancing and adjusting, Landlord shall be responsible, at its expense, for having any necessary balancing and adjusting performed during such one-year period.

(e) This lease is subject to the Landlord obtaining all permits, licenses and approvals necessary to allow Landlord to construct the Initial Tenant Improvements and obtain a certificate of occupancy with respect thereto; and if Landlord shall be unable to obtain same, and is therefore unable to commence or complete the Initial Tenant Improvements, then this lease may be terminated by Landlord by written notice to Tenant.

3.3 The Additional Tenant Improvements.

(a) Tenant shall be responsible, at its sole cost and expense, for the performance of all work, if any, necessary in Tenant’s discretion to prepare the Balance of the Premises for Tenant’s occupancy (the “Additional Tenant Improvements”). If Tenant desires to perform such work, Tenant shall complete the Additional Tenant Improvements in accordance with the
Additional Plans, as defined below, and in accordance with the requirements of Article 9 and Article 23 hereof; and the Additional Tenant Improvements shall only be performed by contractors and subcontractors who have been approved in writing by Landlord, such approval not to be unreasonably withheld or delayed.

(b) Tenant shall be solely responsible for the preparation and submission to Landlord for approval, of all architectural, electrical and mechanical drawings, plans and specifications necessary for the construction of the Additional Tenant Improvements, should Tenant desire to construct the same; and all such plans and specifications shall be subject to Landlord’s prior written approval, which shall not be unreasonably withheld or delayed (such plans and specifications, when approved by Landlord, are hereinafter referred to as the “Additional Plans”). Landlord shall not be deemed unreasonable in not approving matters therein which, among other things, in Landlord’s reasonable judgment, would cause additional delay or any expense or unreasonable inconvenience to Landlord in the construction, operation or maintenance of or insurance upon the Premises or Building or any related machinery, equipment or other property, or which are aesthetically inappropriate to the Building, or which would conflict with the design or function of the balance of the Building.

(c) Intentionally Deleted.

(d) All work to be done hereunder by Tenant in connection with the Additional Tenant Improvements shall be done in a good and workmanlike fashion using new materials and in a first-class manner; and the Additional Tenant Improvements shall be performed in accordance with, and when completed shall in all respects comply with, all Applicable Law (as defined in Article 23), including the applicable provisions of the Americans With Disabilities Act, the terms and conditions of all permits and approvals, and with all insurance requirements which may be then applicable.

(e) Tenant understands that certain tenant fit-up work is to be performed in the Building with respect to premises leased to New England Medical Center Hospitals, Inc. (the “NEMC Work”). Tenant agrees that, until the NEMC Work has been completed, but not later than July 1, 1994, Tenant shall use labor compatible with that being employed for the NEMC Work and shall not employ or permit the use of any labor or otherwise take any action which might result in a labor dispute involving personnel providing work or services in connection with the NEMC Work. If Tenant believes that compliance with the preceding sentence during such period will require Tenant to expend extra funds or pay a premium for labor and materials in connection with the Additional Tenant Improvements or any other Alterations, Landlord shall reimburse Tenant for the reasonable additional cost, if any, in complying with the preceding sentence, provided the following procedure shall apply and be followed:

(1) Before proceeding with any such construction work (the “Work”), Tenant shall notify Landlord and provide Landlord with plans and specifications for such work prepared by an architect and sufficient to bid, permit and construct the Work (the “Bid Plans”). The Bid Plans shall be subject to Landlord’s approval, as provided in subsection (b) above, and the Work as depicted on the Bid Plans shall in all respects comply with all Applicable Law, including the applicable provisions of the Americans with Disabilities Act (which compliance shall be and remain the responsibility of Tenant).
(2) Tenant shall promptly obtain from an appropriate and reputable contractor a bid for the construction of the Work as depicted on the Bid Plans (the “Bid Amount”), and the contractor’s reasonable charge for providing such bid shall be borne by the Landlord.

(3) Based upon the Bid Plans, the Landlord shall thereafter proceed using reasonable efforts to obtain all necessary permits and approvals for the construction of the Work, and shall cause the construction of the Work to be performed under its direction with contractors of Landlord’s choosing (which may involve construction activity occurring during night hours and on weekends only), and such work shall be completed by Landlord’s contractor in substantial conformance with the Bid Plans, and shall be performed in a good and workmanlike fashion using new materials and in a first-class manner and within the time provided for completion specified in Tenant’s contractor’s bid. Landlord reserves the right to make minor changes and substitutions to the Bid Plans, provided same do not materially adversely modify the Bid Plans. The Work shall be deemed substantially complete on the date as of which a certificate of occupancy has been received from the City of Boston and delivered to Tenant for the Work and the Work has been substantially completed in accordance with this paragraph, with only punch-list type items remaining to be completed, which punch-list items are to be completed by Landlord’s contractor as soon as reasonably practicable thereafter. Tenant shall give Landlord specific written notice of any defects or incomplete remaining items of work with respect to the Work within ten (10) days of the substantial completion of the Work; and except with respect to the items contained in such notice, Tenant shall be deemed satisfied with the Work and Landlord shall be deemed to have completed all of its obligations under this subsection (e) and Tenant shall have no claim that Landlord has failed to perform in full its obligations hereunder. Landlord agrees to provide Tenant with the benefit of any warranty or guaranty received by Landlord from the contractor performing the Work, Landlord agreeing to use reasonable efforts to obtain customary construction warranties from its contractor, including the balancing and adjusting of the HVAC system for a period of one year.

(4) Tenant shall pay to Landlord, promptly upon the presentation of bills or invoices from time to time for work performed or materials supplied pursuant to the construction contract (which shall be certified by Landlord as due under the construction contract), the cost of construction of the Work, provided the aggregate of Tenant’s payments to Landlord shall not exceed the Bid Amount (so that if the total cost of construction of the Work is less than the Bid Amount, Tenant shall only have paid such lesser amount), and any costs over the Bid Amount (subject to the following sentence) shall be borne by the Landlord. The Tenant shall remain responsible, and shall promptly pay or reimburse Landlord, for all permit and approval costs and other costs of the Work not included in the Bid Amount, and for any costs and expenses of construction due to: (i) any change in the Bid Plans requested by Tenant; (ii) any request by Tenant for a delay in the commencement or completion of the Work for any reason; or (iii) any other act or omission of Tenant or its employees, agents or contractors. Landlord’s construction obligations hereunder shall be conditioned upon prompt payment by Tenant of the costs of construction, as provided herein, and such payments shall be deemed additional rent hereunder and, in case of any nonpayment thereof, Landlord shall have in addition to any other rights and remedies, all of the rights and remedies provided by law or provided for in the Lease for the nonpayment of Fixed Rent.
4. **RENT**

The fixed rent (hereinafter “Fixed Rent”) payable by the Tenant during the original Term shall be the annual rent of Two Hundred Eleven Thousand Eight Hundred Thirty Five and 52/100 ($211,835.52) Dollars ($14.04 per square foot of rentable floor area) payable in equal monthly installments of $17,652.96. Tenant’s obligations to pay Fixed Rent shall begin on the Term Commencement Date. Tenant shall deposit the first month’s rent with Landlord upon execution hereof, to be held as advance rental and security to be forfeited, without limitation or other remedies, for any default by Tenant occurring prior to the Term Commencement Date. If no default occurs, the payment shall be applied to the first monthly installment due hereunder.

Tenant shall also pay as additional rent without notice, except as required under this Lease, and without any abatement, deduction or setoff, all sums, impositions, costs, expenses and other payments which Tenant in any of the provisions of this Lease assume or agrees to pay, and, in case of any nonpayment thereof, Landlord shall have in addition to any other rights and remedies, all of the rights and remedies provided by law or provided for in the Lease for the nonpayment of Fixed Rent.

All Fixed Rent payments are due in advance without demand, deduction or set-off on the first day of each and every month during the Term and any extension or renewal thereof. Fixed Rent for any partial month shall be prorated.

In the event any Fixed Rent, additional rent or any other payments are not paid within ten (10) days of the due date thereof, Tenant shall be charged a late fee of 1.5% of such late payment for each late payment for each month or portion thereof that said payment remains outstanding. Said late fee shall be payable in addition to and not in exclusion of additional remedies herein provided to Landlord.

5. **PLACE OF PAYMENT OF RENT**

All payments of rent shall be made by Tenant to Landlord without notice or demand at such place as Landlord may from time to time designate in writing. The initial place for payment of rent shall be Whittier Partners, 155 Federal Street, Boston, Massachusetts 02110. Any extension of time for the payment of any installment of rent, or the acceptance of rent after the time at which it is due and payable shall not be a waiver of the rights of Landlord to insist on having all other payments made in the manner and at the times herein specified.

6. **OPERATING EXPENSES AND REAL ESTATE TAXES**

6.1 **Operating Expenses Payment.**

In the event that the total Operating Expenses (hereinafter defined) for any calendar year (beginning with calendar year 1994) increase above the Operating Expenses for calendar year 1993 (hereinafter “Operating Expenses Base”), Tenant shall pay to Landlord, as additional rent hereunder, 7.143% of any such increase (hereinafter “Proportionate Share”), in the manner hereinafter set forth. The Operating Expenses and the Operating Expenses Base shall be pro-rated for any partial calendar year within the Term hereof.
Landlord shall deliver to Tenant approximately ninety (90) days after the close of each calendar year in which any portion of the Term may fall, an itemized statement certified by the Landlord’s managing agent and allocating expense items in reasonable detail, setting forth:

a. The Operating Expenses for the preceding calendar year;

b. The total amount of Tenant’s Proportionate Share of the increase in Operating Expenses for the preceding calendar year; and

c. The balance, if any, due from or overpaid by Tenant for the preceding calendar year.

Tenant shall pay to Landlord the balance due from Tenant within thirty (30) days of the receipt of such statement. In the event such statement shows an overpayment by Tenant, Landlord shall refund the amount of such overpayment to Tenant within 30 days of the delivery of such statement or shall credit same against future additional rent payments, provided Tenant is not then in default in the performance of any of its obligations under this Lease.

In addition, commencing January 1, 1994 or at any time thereafter designated by Landlord, on the first day of each month throughout the Term, Tenant shall pay to Landlord, on account towards Tenant’s share of anticipated increases in Operating Expenses, one-twelfth of the total amount reasonably estimated by Landlord to be Tenant’s share thereof for the current calendar year.

The Tenant shall also pay to the Landlord, within thirty (30) days of receipt of any invoice therefor, as additional rent hereunder, 100% of any Operating Expenses which are incurred by Landlord and either caused by any act or negligence by the Tenant or Tenant’s Agents or are performed as special services to Tenant beyond those normally provided by Landlord, including without limitation additional after-hours security, facilities and personnel (“Special Services”).

6.2 Operating Expenses Definition.

The term Operating Expenses shall mean only those costs reasonably incurred with respect to the operation, administration, cleaning, repair, management, maintenance, protection and upkeep (hereinafter “Operation”) of Landlord’s Property that are consistent with those provided at comparable buildings located in Boston, Massachusetts, including without limitation expenses for the following:

A. Compensation and all fringe benefits, workmen’s compensation, unemployment insurance, insurance premiums, wages and taxes paid to, for, or with respect to all persons engaged in the Operation of Landlord’s Property;

B. All utilities and services furnished and supplied to the Common Facilities;

C. All utilities and services furnished and supplied generally to tenants in the Building utilizing the Building’s common systems;
D. Cost of services, materials, supplies and equipment furnished or used in the Operation of Landlord’s Property;

E. Cost of maintenance, cleaning and repairs to Landlord’s Property;

F. All legal, accounting and other professional fees and charges directly related to the Operation of Landlord’s Property;

G. Expenses for or on account of the upkeep and maintenance of equipment, including payments under service contracts for maintenance of equipment such as, but not limited to, security, air-conditioning, heat or elevator equipment;

H. Premiums for any insurance carried by Landlord covering Landlord’s Property, including but not limited to fire, casualty, boiler, sprinkler, machinery, rental interruption and general liability insurance to the extent carried by Landlord, in its sole discretion;

I. Personal property sales and use taxes on material, equipment, supplies and services, the cost of all permits and licenses and all fees for fire, security and police protection;

J. Customary and reasonable management fees, which shall not exceed five (5%) percent of the gross rents for the Building per year; and

The net amount of any insurance proceeds received by Landlord on account of any items included as a part of the Operating Expenses shall be included as a credit against the Operating Expenses in the year in which such proceeds are received by Landlord.

Operating Expenses shall not include the following: leasing commissions and costs incurred in preparing leasable space in the Building for the occupancy of other tenants; interest, principal or other payments under any mortgage or other financing of the Building or Landlord’s Property; any inheritance, estate, succession, transfer, gift, franchise, income or earnings, profit, corporate or similar tax to the extent applicable to Landlord’s general or net income; and any fines or penalties payable by Landlord as a result of its violations of law.

Depreciation and costs incurred for the exclusive benefit of a specific tenant shall not be included in Operating Expenses. Expenditures which are not properly chargeable against income shall not be included in Operating Expenses, except that the annual charge-off (hereinafter defined) of the following shall be included: (a) those capital improvements required to be made by federal, state or local regulation or ordinance not in effect as of the Term Commencement Date and (b) those capital items acquired by Landlord which, in Landlord’s reasonable judgment, should reduce the Operating Expenses whether or not such reduction occurs. There shall be included in Operating Expenses for the calendar year in which such capital expenditure is made and each succeeding calendar year, the amount of the annual charge-off of such capital expenditure together with interest at an annual rate equal to 2% over the prime rate of the Bank of Boston in effect at the time of making such capital expenditure (less insurance or other proceeds, if any, collected by Landlord by reason of damage to, or destruction of, any capital item so replaced). Annual charge-off shall be determined by dividing the original cost of the capital expenditure made during the Term of this Lease by the number of years of useful life of the item acquired. The useful life shall be determined by Landlord’s accountants in accordance with generally accepted accounting principles and practices in effect at the time of the capital expenditure.

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6.3 Real Estate Taxes Payment.

In the event that the Real Estate Taxes (hereinafter defined) for any tax year increase above $336,995.73, (hereinafter “Tax Base”), Tenant shall pay to Landlord as additional rent hereunder, its Proportionate Share of any such increase. Such payments shall be made in monthly installments on the first day of each month, in an amount reasonably estimated by Landlord to be Tenant’s share thereof.

Landlord shall deliver to Tenant approximately ninety (90) days after the close of each tax year in which any portion of the Term may fall, an itemized statement setting forth:

a. The Real Estate Taxes for the preceding tax year;

b. The total amount of Tenant’s Proportionate Share of the increase in Real Estate Taxes for the preceding tax year; and

c. The balance, if any, due from or overpaid by Tenant for the preceding tax year.

Tenant shall pay to Landlord the balance due from Tenant within thirty (30) days of the receipt of such statement. In the event such statement shows an overpayment by Tenant, Landlord shall refund the amount of such overpayment to Tenant within 30 days of the delivery of such statement or shall credit same against future additional rent payments, provided Tenant is not then in default in the performance of any of its obligations under this Lease.

In the event that Landlord obtains an abatement, reduction or refund of any Real Estate Taxes for a tax period during which Tenant was obligated to pay a share of the increase in Real Estate Taxes, then Tenant shall receive its Proportionate Share of the net proceeds of such abatement, reduction or refund, and any interest paid to the Landlord on account of such abatement, reduction or refund, (after deduction of all reasonable costs, including legal and appraisal fees, incurred by Landlord in obtaining the same) but only to the extent and not in excess of any payments made by Tenant for such increase as required under this Article 6. Landlord shall be under no obligation to seek such an abatement, reduction or refund. Tenant shall not contest—by any proceedings the assessed valuation of Landlord’s Property or any part thereof for purposes of obtaining a reduction of its assessment or of any taxes.

6.4 Real Estate Taxes Definition.

The term “Real Estate Taxes” shall mean the sum of all taxes, rates and assessments, general and special, levied or imposed against the Landlord’s Property and any improvements constructed thereon (including the Building), including all taxes, rates and assessments, general and special, foreseen and unforeseen, levied or imposed for school, public betterment, general or local improvements. If the system of real estate taxation shall be altered or varied and any new tax shall be levied or imposed in the jurisdiction wherein Landlord’s Property is located, then any such new tax or levy shall be included within the term "Real Estate Taxes”. The amount of
the Real Estate Taxes which shall be deemed to have been levied or imposed with respect to Landlord’s Property and improvements shall be such amount as
the legal authority imposing Real Estate Taxes shall have attributed thereto. In the absence of such attribution or if such legal authority shall include
immovables other than Landlord’s Property and improvements in imposing such Real Estate Taxes, then such amount shall be established by Landlord in
Landlord’s reasonable judgment. The term “Real Estate Taxes” shall not include any inheritance, estate, succession, transfer, gift, franchise, income or
earnings, profit, corporate or similar tax to the extent applicable to Landlord’s general or net income.

Tenant shall pay prior to delinquency, all municipal, county, state or federal taxes which shall be levied, assessed or due and unpaid on any leasehold
interest, on any investment of Tenant in the Premises, or on any personal property owned, installed or used by Tenant, or on Tenant’s right to occupy the
Premises. Notwithstanding anything to the contrary, Tenant shall have the right at its sole cost and expense to contest the validity of and to seek an abatement
of any of the foregoing taxes, excluding Real Estate Taxes.

6.5 Miscellaneous.

Any payment due under this Article for any portion of a tax year shall be appropriately prorated. Landlord shall have the same rights and remedies for
the non-payment by Tenant of any amounts due hereunder as Landlord has for the failure of Tenant to pay rent.

7. QUIET ENJOYMENT

Tenant, upon payment of the rent herein reserved and upon the performance of all the terms and conditions of this Lease, shall at all times during the
Term and during any extension or renewal term, peaceably and quietly enjoy the Premises without any disturbance from Landlord or from any other person
claiming through Landlord, subject, nevertheless, to the terms and conditions of this Lease and to the mortgages hereinafter mentioned.

8. USE OF THE PREMISES

A. The Premises may be used solely by Tenant for the purposes of general office purposes including educational research and training and associated
office uses, and for no other purpose (hereinafter “Permitted Use”).

B. Tenant shall not at any time use or occupy the Premises in violation of the certificate of occupancy or building permit issued for the Building or any
applicable zoning ordinance. The statements in the Lease of the nature of the business to be conducted by Tenant in the Premises does not constitute a
representation or guaranty by Landlord that such business may be conducted on the Premises or is lawful under the certificate of occupancy or building
permit or is otherwise permitted by law; however, Landlord shall deliver to Tenant a Certificate of Occupancy for the Premises, as provided in Article 3
hereof.

C. Notwithstanding the foregoing, if Tenant is using the Premises for the Permitted Use and the City of Boston or its zoning authority notifies the
Tenant that such use is in violation of the applicable provisions of the zoning ordinance, and, as a result, Tenant is duly ordered to cease its operations at the
Premises, the Tenant shall have the option to terminate this Lease by
giving written notice thereof to Landlord prior to such order to cease operations being lifted or vacated, and this Lease shall thereupon be terminated and of no force and effect; provided, however, such termination shall only be effective if Tenant timely makes the Termination Payment (as defined below). The Termination Payment shall be made within 30 days of the date of Tenant’s notice of termination. The “Termination Payment” shall mean an amount equal to unamortized portion (as of the date of such termination) of the costs and expenses incurred by Landlord in constructing the Initial Tenant Improvements, which costs are to be amortized on a straight line basis evenly over the original Term. The parties agree that, for the purposes of the calculation of the Termination Payment, the costs and expenses of constructing the Initial Tenant Improvements shall be deemed to be $240,000, which amount shall amortize over the original term, commencing on the Term Commencement Date, at the rate of $4,000 per month.

9. ALTERATIONS

Except for those items specified elsewhere herein, no alterations, additions or improvements (hereinafter “Alterations”) to the Premises shall be made by Tenant without the prior written consent of Landlord, which shall not be unreasonably withheld. Landlord shall not be deemed unreasonable for withholding its consent to any Alteration which may affect the structural, mechanical, exterior or common facilities of the Building, nor for making its approval conditional upon Tenant’s agreement to restore the Premises at the expiration or earlier termination of the Term to its condition prior to such Alteration.

All work done in connection with any Alteration shall be done in a good and workmanlike manner employing materials of good quality and in compliance with laws, rules, orders and regulations of governmental authorities having jurisdiction thereof, by contractors approved by Landlord. Tenant shall be responsible that its contractors abide by all reasonable procedures, rules and regulations as promulgated by Landlord. All Alterations shall be performed in such a manner so as to maintain harmonious labor relations and not to damage the Building or unreasonably interfere with the construction or operation of the Building. Tenant shall indemnify and hold Landlord harmless from additional costs incurred in supplying service or repairing damage caused by Tenant’s contractors. Tenant shall cause each contractor to carry workmen’s compensation insurance in statutory amounts covering the employees of all contractors and subcontractors, and comprehensive general liability insurance with such limits as Landlord may reasonably require from time to time during the Term of this Lease, but in no event less than the minimum amount of comprehensive general liability insurance Tenant is required to maintain as set forth in Article 11 hereof (all such insurance to be written in companies reasonably approved by Landlord and insuring Landlord, Landlord’s mortgagee and Tenant as well as the contractors) and to deliver to Landlord certificates of all such insurance prior to commencement of any work. Any Alteration made by Tenant after such consent shall have been given, and any fixtures installed as part thereof shall, at Landlord’s option, become the property of Landlord upon the expiration or other sooner termination of this Lease. If Landlord shall fail to exercise such option, Tenant shall remove such Alterations at Tenant’s cost upon expiration or termination of this Lease. Tenant shall yield up the Premises in good order and repair, reasonable wear and tear and damage by fire or casualty excepted.
10. MAINTENANCE AND REPAIR

Except as otherwise provided in this Article and Articles 12 and 13, Landlord shall keep and maintain in good order and repair (in accordance with standards of office buildings of similar age, condition and character in Boston, Massachusetts) the Common Facilities and structural portions of the Building including but not limited to the roof, exterior walls, floor slabs, columns, elevators, public stairways and corridors, lavatories and common utility systems and equipment external to the Premises (specifically excluding any such equipment installed by or on behalf of Tenant). Landlord’s obligations hereunder shall exclude reasonable wear and tear and damage by fire or other casualty.

Tenant shall make all other repairs necessary to maintain the Premises in good order and repair, including, without limitation, all glass, doors and all utility systems and equipment serving the Premises exclusively and Tenant shall return the Premises to Landlord at the end of the Term in good condition, reasonable wear and tear and damage by fire or other casualty excepted. Tenant shall also be responsible for the cost of any repairs to the Premises or the Building (to the extent not reimbursed by insurance proceeds), which repairs may be structural or non-structural in nature, necessitated as the result of the negligence or fault of Tenant or Tenant’s subtenants, licensees, concessionaires, employees, agents, contractors or anyone else claiming by, through or under Tenant (hereinafter “Tenant’s Agents”) Tenant shall keep the interior of the Premises neat and in good order, repair and condition, shall keep all interior glass in good condition and shall replace any exterior glass broken by Tenant or Tenant’s Agents with glass of the same quality.

All repairs made by either Landlord or Tenant shall be done in a good and workmanlike manner in accordance with all applicable laws.

11. INSURANCE

11.1 Tenant’s Insurance. Tenant shall save Landlord harmless and indemnified from and against all injury, loss, claim or damage to any person or property while (a) on the Premises or (b), if arising out of the use or occupancy of the Premises by Tenant or Tenant’s Agents, on Landlord’s Property (unless caused by the act, neglect or default of Landlord, its employees, agents, licensees or contractors), and from and against all injury, loss, claim or damage to any person or property anywhere on the Premises or Landlord’s Property occasioned by any act, neglect or default of Tenant or Tenant’s Agents. Tenant shall maintain with respect to the Premises and Landlord’s Property liability insurance equivalent to comprehensive general liability and property damage insurance including the broad form comprehensive general liability endorsement and a contractual liability coverage endorsement in amounts not less than $3,000,000.00 combined single limit and an annual aggregate of at least $5,000,000.00. Landlord shall have the right, from time to time, to increase said insurance amounts to amounts customarily required of tenants in comparable buildings in the greater Boston area. Such insurance shall insure Landlord and Landlord’s mortgagees as additional insureds (with respect to their respective interests in the Premises) as well as Tenant against injury to persons or damage to property as herein provided, and shall contain a provision that the Landlord and Landlord’s mortgagees, although named as additional insureds, shall nevertheless be entitled to recovery under said policy for any loss occasioned to them, their servants, agents and employees by reason of the negligence of the Tenant or Tenant’s Agents.
Tenant shall maintain, at its sole cost and expense, fire and extended coverage insurance for all of its contents, furniture, furnishings, equipment, improvements, funds, personal property, floor coverings and fixtures located within or about the Premises, providing protection in an amount equal to One Hundred (100%) percent of the insurable value of said items.

All of Tenant’s insurance shall be with companies qualified to do business in Massachusetts, and shall be issued by insurance companies with a general policyholder’s rating of not less than A- and a financial rating of not less than Class X as rated in the most current “Best’s” Insurance Reports. Such insurance may be maintained by Tenant under a blanket policy or policies so-called, provided the coverage afforded Landlord is not reduced or diminished by reason of the use of such blanket insurance policy, and provided further that the requirements set forth herein are otherwise satisfied.

Tenant shall deposit with Landlord certificates of insurance that it is required to maintain under this Lease, at or prior to the Term Commencement Date, and thereafter, within thirty (30) days prior to the expiration of each such policy. Such policies shall provide that the policies may not be changed or cancelled without at least thirty (30) days’ prior written notice to Landlord.

Tenant covenants that in the event it violates Article 35 hereof or in the event it keeps upon the Premises or Landlord’s Property any substance of dangerous, inflammable or explosive character or makes any use of the Premises which increases the rate of insurance on the Premises or Landlord’s Property, Tenant shall promptly pay to Landlord upon demand any such increase resulting therefrom, which shall be due and payable as additional rent hereunder.

11.2 Landlord’s Insurance. Landlord shall maintain general liability insurance with respect to the Common Areas and fire and extended coverage insurance on the Building providing protection in an amount reasonably determined by Landlord to be adequate. Landlord shall not be responsible for any damage to Tenant’s contents, furniture, furnishings, equipment, improvements, funds, personal property or fixtures.

11.3 Waiver of Subrogation. Any insurance carried by either party with respect to the Premises or property therein or occurrences thereon shall, if it can be so written without additional premium or with an additional premium which the other party agrees to pay, include a clause or endorsement denying to the insurer rights of subrogation against the other party. Neither Landlord nor Tenant shall be liable to the other or to any insurance company (by way of subrogation or otherwise) insuring the other party for any loss or damage to any building, structure or other tangible property, or any resulting loss of income, or losses under worker’s compensation laws and benefits, even though such loss or damage might have been occasioned by the negligence of such party, its agents or employees if any such loss or damage is covered by insurance benefiting the party suffering such loss or damage or which is customarily covered by any insurance required to be carried hereunder, to the extent of such coverage.

12. DAMAGE TO THE PREMISES

12.1 Landlord’s Right to Terminate. If a portion of the Premises or the Building is substantially damaged by fire or other casualty, Landlord may terminate this Lease as of the date of such damage by giving Tenant written notice of such termination within sixty (60) days of such fire or casualty.
12.2 **Landlord’s Obligation to Repair.** In the event that Landlord elects not to terminate this Lease as aforesaid, then this Lease shall continue in full force and effect and Landlord shall promptly repair the damage and restore the Premises, excluding Tenant’s personal property, fixtures, furniture, equipment and floor coverings, to substantially the condition thereof immediately prior to such damage. Landlord’s obligation to repair such damage and restore the Premises shall be limited to the extent of the insurance proceeds made available to Landlord and allocated for the Premises. Landlord shall not be liable for any inconvenience or annoyance to Tenant or injury to the business of Tenant resulting from delays in repairing such damage.

12.3 **Rent Abatement.** For so long as such damage renders the Premises or a portion thereof unsuitable for Tenant’s use thereof immediately prior to the occurrence of such fire or casualty, a just and proportionate abatement of Fixed Rent shall be made, provided that such damage is not due to the fault or neglect of Tenant or Tenant’s Agents.

12.4 **Tenant’s Option to Terminate.** If damage to the Premises or to the Building renders the Premises substantially unsuitable for Tenant’s use thereof immediately prior to the occurrence of such fire or casualty, and provided that the damage was not due to the fault or neglect of Tenant or Tenant’s Agents, then Tenant may elect to terminate this Lease prior to the time such damage is repaired if and only if either:

   a. Landlord fails to give written notice within sixty (60) days of said fire or casualty of its intention to restore the Premises; or

   b. Landlord fails to restore the Premises to a condition suitable for the Permitted Use within one hundred eighty (180) days of said fire or casualty, provided such failure is not due to the action or inaction of Tenant, Tenant’s Agents, or causes beyond the reasonable control of Landlord.

Tenant shall exercise its option to terminate by giving written notice to Landlord within thirty days after Landlord’s failure to notify or failure to restore, as specified above.

12.5 **Definitions.** The term “substantial damage” as used herein shall refer to damage of such character that the same cannot in the ordinary course be reasonably expected to be repaired, within one hundred twenty (120) days from the time that such work would commence.

13. **EMINENT DOMAIN**

   In the event that the whole of the Premises or Landlord’s Property shall be lawfully condemned or taken in any manner for public or quasi-public use, this Lease shall forthwith terminate as of the date of divesting of Landlord’s title.

   In the event that only a part of the Premises or Landlord’s Property shall be so condemned or taken, then, if such condemnation or taking is results in any of the following, either Landlord or Tenant may by delivery of notice in writing to the other within sixty (60) days following the date on which Landlord’s title has been divested by such authority, terminate this Lease:
a. Results in the loss of reasonable access to the Premises, or renders the Premises substantially unsuitable for Tenant’s use thereof immediately prior to the occurrence of such taking;

b. Results in the loss to Tenant of twenty-five (25%) percent or more of the floor area of the Premises; or

c. Results in loss of facilities in the Building that supply heat, air conditioning, water, drainage, plumbing, electricity or other utilities to Premises.

In the event that only a part of the Premises or Landlord’s Property shall be so condemned or taken, then, if such condemnation or taking is substantial as hereinafter defined, Landlord may, in addition, by delivery of notice in writing within sixty (60) days following the date on which Landlord’s title has been divested by such authority, terminate this Lease. “Substantial” shall mean any condemnation or taking which:

a. Results in the loss of reasonable access to the Building, or renders the Building substantially unsuitable for its then uses;

b. Results in the loss to Landlord of more than twenty-five (25%) percent of the floor area of the Building or more than fifteen (15%) percent of the total area of the land; or

c. Results in loss of facilities in the Building that supply heat, air conditioning, water, drainage, plumbing, electricity or other utilities to Building.

If this Lease is not terminated as aforesaid or if such condemnation or taking is not substantial, then this Lease shall continue in full force and effect except that the Fixed Rent shall be equitably abated as of the date of divesting of title. Landlord shall, with reasonable diligence and at its expense, restore the remaining portion of the Premises as nearly as practicable to the same condition as it was prior to such condemnation or taking. Landlord’s obligation to restore the remaining portion of the Premises shall be limited to the extent of the condemnation proceeds made available therefor to Landlord.

In the event of any condemnation or taking, Landlord shall be entitled to receive the entire award in the condemnation proceedings, including any award made for the value of the estate vested by this Lease in Tenant, and Tenant hereby expressly assigns to Landlord any and all right, title and interest of Tenant now or hereafter arising in or to any such award or any part thereof. Notwithstanding the foregoing, Tenant shall have the right to bring a separate condemnation proceeding for relocation expenses and trade fixtures, or to bring other claims, payable in the manner and extent as, and if, provided by law, provided such awards do not reduce the awards to Landlord on account of such condemnation or taking.
15. **LANDLORD’S SERVICES**

15.1 **Electric Current.**

   a. Landlord shall install and maintain at its cost separate electric meters for measuring electricity furnished to the Premises. Tenant shall contract with the company supplying electrical current for the purchase and obtaining of electrical current directly from such company, which shall be billed directly to and paid for by Tenant. This shall include all current used in the Premises, including but not limited to all electricity used for heating, air conditioning and ventilation, lighting, office equipment and machines.

   b. If Tenant shall require electrical current for use in the Premises in excess of the present capacities and if in Landlord’s reasonable judgment, Landlord’s facilities are inadequate for such excess requirements or such excess requirements will result in an additional burden on the Building systems and additional cost to Landlord on account thereof, then Landlord shall upon written request and at the sole cost and expense of Tenant, furnish and install such additional wires, conduits, feeders, switchboards and appurtenances as reasonably may be required to supply such additional requirements of Tenant, provided current therefor is available to Landlord, and provided further that the same shall be permitted by applicable laws and insurance regulations and shall not cause permanent damage to the Building or the Premises, cause or create a dangerous or hazardous condition, entail unreasonable alterations or repairs, or interfere with or disturb other tenants or occupants of the Building. Tenant shall reimburse Landlord on demand for all costs incurred by Landlord on account thereof.

   c. If requested by Tenant, Landlord, at Tenant’s expense, shall purchase and install all replacement lamps (including, but not limited to, incandescent and fluorescent lights) used in the Premises.

   d. Landlord shall not in any way be liable or responsible to Tenant for any loss, damage or expense which Tenant may sustain or incur if the quantity, character or supply of electrical energy is changed or is no longer available or suitable for Tenant’s requirements.

   e. Except as may be disclosed in the Additional Plans (and thereby approved by Landlord), Tenant agrees that it shall not make any material alteration or material addition to the electrical equipment or appliances in the Premises without obtaining the prior written consent of Landlord in each instance, which consent will not be unreasonably withheld, and Tenant shall promptly advise Landlord of any other alteration or addition to such electrical equipment appliances.

15.2 **Water.** Landlord shall furnish hot and cold water to the Premises or to a common area lavatory for ordinary office cleaning, toilet, lavatory and drinking purposes. If Tenant requires, uses or consumes water for any purpose other than for the aforementioned purposes, Landlord may (a) assess a reasonable charge for the additional water used or consumed by Tenant; or (b) install a water meter and thereby measure Tenant’s water consumption for all
purposes. In the latter event, Landlord shall pay the cost of the meter and the cost of installation thereof and shall keep said meter and installation equipment in good working order and repair. Tenant agrees to pay for water consumed, as shown on said meter, together with the sewer use charge based on said meter charges as and when bills are rendered. On default in making such payment, Landlord may pay such charges and collect the same from Tenant as additional rent hereunder.

15.3 Elevators, Heat. Landlord shall: (a) provide elevator facilities (which may be manually or automatically operated, either or both, as Landlord may from time to time elect) during Business Hours and have one elevator in operation available for Tenant’s use, non-exclusively together with others having business in the Building, at all other times that the Building is open; and (b) furnish heat (in amounts as are customarily provided by buildings of the same age, condition and character as the Building) to the Premises and to Common Areas of the Building during Business Hours during the normal heating season, Landlord shall provide heat the Premises at times in addition to Business Hours, at Tenant’s Expense (as Special Services hereunder), provided Tenant gives Landlord reasonable prior notice (as shall be established by Landlord) of its need for such after-hours heat. As of the date hereof, such notice must be given no later than 12:00 noon for after-hours heat in the evenings and no later than 12:00 noon on Fridays for weekend heat.

15.4 Interruption or Curtailment of Services. Landlord reserves the right to interrupt, curtail, stop or suspend (a) the furnishing of elevator and other services, and (b) the operation of the plumbing and electric systems whenever necessary for repairs, alterations, replacements or improvements desirable or necessary to be made in the reasonable judgment of Landlord or whenever necessary due to accident or emergency, difficulty or inability in securing supplies or labor strikes, or any other cause beyond the reasonable control of Landlord, whether such other cause is similar or dissimilar to those hereinafore specified, until said cause has been removed. Except when caused by the gross negligence of Landlord, there shall be no diminution or abatement of rent or other compensation due from Tenant to Landlord hereunder, nor shall this Lease be affected or any of Tenant’s obligations hereunder reduced, and Landlord shall have no responsibility or liability for any such interruption, curtailment, stoppage or suspension of services or systems, except that Landlord shall exercise all due diligence to eliminate the cause of same.

15.5 Energy Conservation. Notwithstanding anything to the contrary contained in this Lease, Landlord may institute such reasonable policies, programs or measures as may be necessary, required or expedient for the conservation and/or preservation of energy or energy services, provided either the majority of similar buildings in Boston, Massachusetts are subject to similar policies, programs or measures, or such are necessary or required to comply with applicable governmental codes, rules, regulations or standards.

15.6 Tenant Directory. Landlord agrees to maintain a tenant directory in the lobby of the Building in which a reasonable number of listings will be placed identifying Tenant and the location of the Premises in the Building. Landlord reserves the right to charge Tenant a reasonable fee for each such listing; however, Landlord shall provide Tenant with two (2) listings at no cost to Tenant.
16. **ACCESS**

The Building shall remain open during all Business Hours, except as provided herein, and Tenant’s servants, employees, agents and business invitees shall have the free and uninterrupted right of access in common with others entitled thereto to the Premises during Business Hours. Subject to reasonable security measures, Tenant and its employees and, if escorted by employees, guests and business invitees, shall have access to the Premises at all other times.

17. **SUBLEASE AND ASSIGNMENT**

17.1 **Generally.** Tenant shall not voluntarily, involuntarily or by operation of law assign, transfer, mortgage or otherwise encumber the Lease or any interest of Tenant therein, in whole or in part of the Premises or permit the Premises or any part thereof to be used or occupied by others, without the prior written consent of Landlord. A transfer of a majority of Tenant’s stock or a transfer or change of control of Tenant (if Tenant is a corporation), or a change in the composition of persons or entities owning any interest in Tenant (if Tenant is not a corporation), or any transfer of Tenant’s interest in the Lease by operation of law or by merger or consolidation of Tenant with or into any other entity, firm or corporation, shall be deemed an assignment for purposes of this Article 17. Any subletting or assignment pursuant to this Article shall be subject to and conditioned upon the following:

   (a) at the time of any proposed subletting or assignment, Tenant shall not be in default under any of the terms, covenants or conditions of this Lease;

   (b) the sublessee or assignee shall occupy only the Premises and conduct its business in accordance with the Permitted Use;

   (c) prior to occupancy, Tenant and its assignee or sublessee shall execute, acknowledge and deliver to Landlord a fully executed counterpart of a written assignment of lease or a written sublease, as the case may be, by the terms of which:

      (1) in case of an assignment, Tenant shall assign to such assignee Tenant’s entire interest in this Lease, together with all prepaid rents hereunder, and the assignee shall accept said assignment and assume and agree to perform directly for the benefit of Landlord all of the terms, covenants and conditions of this Lease on Tenant’s part to be performed; or

      (2) in case of a subletting, the sublessee thereunder shall agree to be bound by and to perform all of the terms, covenants and conditions of this Lease on the Tenant’s part to be performed, except the payments of rents, charges and other sums reserved hereunder, which Tenant shall continue to be obligated to pay and shall pay to Landlord;

   (d) Tenant shall pay to Landlord monthly one-half of the excess of the rents and other charges received by Tenant pursuant to the assignment or sublease over the rents and other charges reserved to Landlord under this Lease attributable to the space assigned or sublet, less Tenant’s reasonable costs of such assignment or sublet, excluding any buildout or fit-up costs;
(e) Tenant shall acknowledge that, notwithstanding such assignment or sublease and consent of Landlord thereto, Tenant shall not be released or discharged from any liability whatsoever under this Lease and will continue to be liable (jointly and severally with the assignee) with the same force and effect as though no assignment or sublease had been made; and

(f) Tenant shall pay to Landlord the sum of One Thousand ($1,000) Dollars to cover Landlord’s administrative costs, overhead and attorneys’ fees in connection with each such assignment or subletting.

17.2 Landlord’s Consent. Landlord shall not unreasonably withhold its consent to a proposed transfer, sublease or assignment pursuant to the preceding Section 17.1. Landlord’s failure to consent shall be deemed unreasonable if the conditions set forth in Subsections 17.1(a) - 17.1(f) are met and if:

a. The proposed assignment or subletting is to be made to a parent, subsidiary or successor corporation in connection with the reorganization of Tenant or to a partnership of which Tenant is a general partner, provided the net worth of such successor is at least equal to the greater of the net worth of Tenant as of the Term Commencement Date or the net worth of the Tenant as of the date of the proposed transfer and provided the successor has a good reputation in the community; or

b. The proposed assignee or subtenant has a good credit rating, which shall be at least equal to that of Tenant as of the Term Commencement Date, and demonstrable ability to comply with the terms and conditions of this Lease, a good reputation in the community and the proposed use by such subtenant or assignee (even though Permitted Use) could not in Landlord’s reasonable opinion be expected to detract from the character of the Building at the time of the proposed assignment or sublease.

Landlord may withhold its consent if said transfer, sublease or assignment is not approved by the holder of any mortgage on Landlord’s Property.

17.3 No Waiver. The consent by Landlord to an assignment or subletting shall not in any way be construed to relieve Tenant from obtaining the express consent of Landlord to any further assignment or subletting for the use of all or any part of the Premises, nor shall the collection of rent by Landlord from any assignee, sublessee or other occupant after default by Tenant be deemed a waiver of this covenant or the acceptance of such assignee, sublessee or occupant as tenant or a release of Tenant from the further performance by Tenant of the obligations in this Lease on Tenant’s part to be performed.

18. SUBORDINATION

This Lease is subject and subordinate to any ground leases and real estate mortgages to any lender prior to or subsequent to the date of execution and delivery of this Lease and to all renewals, modifications, consolidations, replacements or extensions thereof, provided that, with respect to ground leases and real estate mortgages subsequent to the date of execution and delivery of this Lease, each such ground lessor or mortgagor enters into an agreement, in customary form, recognizing Tenant under this Lease and providing that, in the event of
foreclosure or termination of a ground lease, Tenant shall remain undisturbed under this Lease if Tenant is not in default under any of the terms and conditions of the Lease. In confirmation of the foregoing, Tenant shall, upon the request of Landlord, promptly execute and deliver all such instruments as may be appropriate to subordinate this Lease to any mortgages securing notes issued by Landlord and to all advances made thereunder and to the interest thereon and all renewals, replacements and extensions thereof, provided that (with respect to a subsequent mortgage or ground lease) such nondisturbance is granted by such mortgagee or ground lessee. At the request of Landlord, Tenant shall join in a subordination agreement requested by any mortgagee who desires to subordinate its mortgage to this Lease, provided, however, that the provisions of said mortgage relating to the receipt and application of insurance proceeds and condemnation awards shall in no event be subordinated to this Lease. Landlord represents that, as of this date, the only mortgagee of Landlord’s Property is Sun Life Insurance Company.

19. ESTOPPEL CERTIFICATE

Tenant shall, at any time during the Term, within ten (10) days after Landlord’s request therefor, deliver a duly executed and acknowledged written instrument to Landlord or to a person or entity specified by Landlord in customary form certifying:

(a) That the Lease is unmodified and in full force and effect or, if there has been any modification, that the same is in full force and effect, as modified and stating any such modification;

(b) Whether or not there are any existing setoffs or defenses against the enforcement of any of the terms, agreements, covenants and conditions of this Lease and any modifications thereof on the part of Tenant to be performed or complied with, and if so, specifying the same; and

(c) The date to which Fixed Rent and all additional rent and other charges have been paid.

Upon Tenant’s failure to deliver timely the estoppel certificate, Landlord may give Tenant an additional written notice; and the failure by Tenant to deliver the estoppel certificate within ten (10) days after such additional written notice shall constitute as to any person entitled to rely upon such statements an acknowledgment that this Lease is unmodified and in full force and effect and a waiver of any defaults which may exist prior to the date of such notice.

20. MORTGAGEE’S RIGHTS

In the event any mortgagee succeeds to the interest of Landlord under the Lease:

(a) the mortgagee shall not be liable for any act or omission of any prior landlord (including Landlord);

(b) the mortgagee shall not be liable for the return of any security deposit unless the same has been received by mortgagee from Landlord and mortgagee acknowledges receipt in writing of said deposit;
(c) the mortgagee shall not be bound by any rent or additional rent which Tenant might have prepaid for more than the then current month under the Lease;

(d) the mortgagee shall not be bound by any amendments or modifications of the Lease made after the date Tenant receives notice of the name and address of such mortgagee, without the consent of mortgagee; and

(e) the mortgagee shall not be subject to any offsets or defenses which Tenant might have against any prior landlord (including Landlord).

21. NOTICE TO MORTGAGEE AND GROUND LESSOR

After receiving notice from any person, firm or other entity that it holds a mortgage which includes the Premises as part of the mortgaged premises, or that it is the ground lessor under a lease with Landlord as ground lessee, which includes the Premises as a part of the demised premises, no notice from Tenant to Landlord with respect to any default or claimed default of Landlord hereunder shall be effective unless and until a copy of the same is given to such holder or ground lessor at the address as specified in said notice (as it may from time to time be changed), and the curing of any of Landlord’s defaults by such holder or ground lessor within no more than thirty (30) days from the date of said notice shall be treated as performance by Landlord. If such default by Landlord by its nature cannot be cured within thirty (30) days, such holder or ground lessor shall be given such additional time as is reasonably necessary, provided such holder or ground lessor has commenced diligently to correct such default and thereafter diligently pursues such correction to completion, For the purposes of this Article 21, the term “mortgage” includes a mortgage on a leasehold interest of Landlord (but not one on Tenant’s leasehold interest).

22. Intentionally Deleted

23. TENANT’S COVENANTS

Tenant covenants and agrees as follows:

A. Tenant shall perform promptly all of the obligations of Tenant set forth in this Lease, and shall pay when due all Fixed Rent, additional rent, and all charges which by the terms of this Lease are to be paid by Tenant.

B. Tenant shall use the Premises only for the Permitted Use, and shall comply with any and all present or future reasonable rules and regulations established by Landlord, provided such rules and regulations are enforced against similarly situated tenants in a nondiscriminatory manner.

C. Tenant shall pay all costs (to the extent not reimbursed by insurance proceeds) on demand for all loss or damage suffered or incurred by Landlord caused by any nuisance or neglect suffered on the Premises or Landlord’s Property due to Tenant or Tenant’s Agents.

D. Intentionally Deleted.
E. Tenant shall permit Landlord and its agents to examine the Premises at reasonable times and upon reasonable notice (which notice may be given orally) to Tenant and to show the Premises to prospective tenants commencing one year prior to the expiration of this Lease.

F. Tenant shall pay all costs for utilities that are not supplied by Landlord that are charged directly to Tenant by any utility company.

G. Except only for items which are expressly the Landlord’s responsibility hereunder, Tenant shall comply with all laws applicable to the Premises and Tenant’s use thereof, including, without limitation, all applicable statutes, ordinances, constitutional provisions, codes, by-laws, regulations, rulings, decisions, rules, order, determinations and requirements of any federal, state, county, local or other legislative, executive, judicial or other governmental body or authority (hereinafter “Applicable Law”). Tenant shall obtain all required licenses and permits relating to the Premises or Tenant’s use thereof, except only for the building permit for the Initial Tenant Improvements and the certificate of occupancy upon the completion of such work, which shall be Landlord’s responsibility. Tenant shall make all changes and alterations in the Premises required by any Applicable Law if the same are necessitated by Tenant’s special or unusual use of the Premises but not if the same are required for general office use. Except for Tenant’s Additional Improvements and any other Alterations, Tenant shall not be required to render the Premises in compliance with Applicable Law at the Term Commencement Date or upon any subsequent change in law, unless related to Tenant’s use thereof.

H. Tenant shall comply with the requirements of all policies of public liability, fire and casualty and other insurance at any time in force with respect to the Premises, the Building and Landlord’s Property.

I. Tenant shall cause any furniture, equipment or supplies to be moved in or out of the Building only upon the elevator designated by Landlord for that purpose and then only during such hours as may be established by Landlord.

J. Tenant shall not injure, overload, deface or otherwise harm the Premises or Landlord’s Property, commit any nuisance, permit the emission of any objectionable odor or noise from the Premises, store or dispose of trash or refuse on or otherwise obstruct the driveways, walks, halls, parking areas or other common areas.

K. Tenant shall not suffer or permit strip or waste.

L. Tenant shall not permit any use that may create a public or private nuisance.

M. Tenant shall not place or maintain any merchandise, vending machines or other articles for the sale of goods or services on any sidewalk or ways adjacent to the Premises, or elsewhere on the exterior or in the interior of the Premises.
N. Tenant shall not conduct any auction, fire, bankruptcy or going-out-of-business sale, nor use or permit the use of any sound apparatus for reproduction or transmission of music or sound that is audible beyond the physical interior of the Premises.

O. Tenant shall not install any window air conditioning unit in or upon the Premises.

P. At the expiration of the term or earlier termination of this Lease, Tenant shall surrender all keys to the Premises, remove all of its trade fixtures and personal property in the Premises and all Tenant’s signs wherever located, repair all damage caused by such removal and yield up the Premises (including all Alterations made by Tenant, except for such Alterations as Landlord shall request Tenant to remove) subject to Article 9 of this Lease, broom-clean and in the same good order and repair in which Tenant is obliged to keep and maintain the Premises by the provisions of the Lease. Any property not so removed shall be deemed abandoned and may be removed and disposed of by Landlord in such manner as Landlord shall determine and Tenant shall pay Landlord the entire cost and expense incurred by it for such removal and disposition and in making any incidental repairs and replacements to the Premises. Tenant shall also pay for the use and occupancy of the Premises during performance of its obligations under this Article. Tenant shall further indemnify Landlord against all loss, cost and damage resulting from Tenant’s failure and delay in surrendering the Premises as above provided.

Q. Tenant shall not place a load upon any floor of the Premises or Building exceeding the floor load per square foot area which such floor was designed to carry and which is allowed by law. Business machines and mechanical equipment shall be placed and maintained by Tenant at Tenant’s expense in settings sufficient to absorb and prevent vibration, noise and annoyance. Any moving of such equipment shall be at the sole risk and hazard of Tenant and Tenant shall indemnify and save Landlord harmless against and from any liability, loss, injury, claim or suit resulting directly or indirectly from such moving.

R. Tenant shall not place any signs or other forms of advertising on or about the exterior of the Premises or the Building, upon any sidewalks or ways adjacent to the Building or within the interior of the Premises that are visible from the exterior of the Building; and no signs shall be affixed in any manner to the windows of the Premises. Notwithstanding the foregoing, but subject to the prior written approval of Landlord, which approval shall not be unreasonably withheld, Tenant may place signs indicating the name of Tenant’s business at the locations where signs currently exist for the previous tenant of the Premises.

24. EVENTS OF DEFAULT

The following shall be deemed to be defaults hereunder:

A. Tenant’s failure to pay the Fixed Rent, Operating Expenses or Real Estate Taxes when due hereunder and such failure continues for more than ten days after written notice thereof from Landlord, or if Tenant fails to pay any other charges provided for hereunder and such failure continues for more than ten (10) days after written notice from Landlord designating such failure; or
B. Tenant’s failure to comply with any other obligation or covenant hereunder and such failure continues for more than thirty (30) days after written notice from Landlord to Tenant specifying such failure. Notwithstanding the foregoing, if such failure by its nature cannot be cured within 30 days, Tenant shall be given such additional time as is reasonably necessary, provided Tenant has commenced diligently to correct said failure and thereafter diligently pursues such correction to completion; or

C. An assignment is made by Tenant or any guarantor of this Lease for the benefit of creditors; or

D. Tenant’s leasehold interest is taken on execution; or

E. A lien or other involuntary encumbrance is filed against Tenant’s leasehold interest or Tenant’s other property, which is not discharged or bonded against within forty-five (45) days thereafter; or

F. A petition is filed by or against Tenant or any guarantor of the Lease for adjudication as a bankrupt, or for reorganization or an arrangement under any provision of the Federal Bankruptcy Code as then in force and effect; or

G. A receiver is appointed for any part of Tenant’s property; or

H. Tenant’s failure to remain a corporation in good standing and qualified to do business in Massachusetts.

25. RIGHTS OF LANDLORD UPON TENANT’S DEFAULT

25.1 Landlord’s Remedies. In the event any default shall continue beyond any applicable notice or grace period hereunder (notwithstanding any waiver, license or indulgence granted by Landlord with respect to the same or any other default in any former instance), Landlord shall have the right, then or at any time thereafter, at its sole election either

(a) to terminate this Lease by written notice to Tenant, which termination shall take effect on the date of Landlord’s dispatch of said notice or on any later date (on or prior to the expiration of the current portion of the Term) specified in Landlord’s termination notice; or

(b) to enter upon and take possession of the Premises (or any part thereof in the name of the whole) without demand or notice, and repossess the same as of the Landlord’s former estate, expelling Tenant and those claiming under Tenant, forcibly if necessary, without being deemed guilty of any manner of trespass and without prejudice to any other remedy for any default hereunder.

Landlord’s repossession of the Premises under this Article shall not be construed to effect a termination of the Lease, unless Landlord sends Tenant a written notice of termination as required hereunder.

25.2 Reletting. Landlord shall have the right (at its sole election and whether or not this Lease shall be terminated under Section 25.1) to relet the Premises or any part thereof for
such period or periods (which may extend beyond the Term) and at such rent or rents and upon such other terms and conditions as Landlord may reasonably deem advisable, and in connection with any such reletting, Landlord may make or cause to be made such additions, alterations and improvements to the Premises as Landlord may deem advisable. In the event that this Lease is terminated, Landlord agrees to use reasonable efforts to relet the Premises; however, reasonable efforts shall not require Landlord to give any special priority to the reletting of the Premises or give the Premises any preference over the letting of any other space in the Building.

25.3 Removal of Goods. If Landlord shall terminate this Lease or take possession of the Premises by reason of a default, Tenant, and those claiming under Tenant, shall forthwith remove their goods and effects from the Premises. If Tenant or any such claimant shall fail so to remove forthwith, Landlord, without liability to Tenant or to those claiming under Tenant, may remove such goods and effects and may store the same for the account of Tenant or of the owner thereof in any place selected by Landlord or, at Landlord’s sole election, Landlord may sell the same at public auction or at private sale on such terms and conditions as to price, payment and otherwise as Landlord, in its sole judgment, may deem advisable. Tenant shall be responsible for all costs of removal, storage and sale, and Landlord shall have the right to reimburse itself from the proceeds of any such sale for all such costs paid or incurred by Landlord. If any surplus sale proceeds shall remain after such reimbursement, Landlord may deduct from such surplus any other sum due to Landlord hereunder and shall pay over to Tenant the remaining balance of such surplus sale proceeds, if any.

25.4 Current Damages. No termination or repossession provided for in Section 25.1 shall relieve Tenant of its liabilities and obligations hereunder (or under its instrument of guarantee), all of which shall survive such termination or repossession. In the event of any such termination or repossession, Tenant shall pay Landlord, in advance, on the first day of each month (and pro rata for the fraction of any month) for what would have been the entire balance of the original Term or of the current extension period, one-twelfth of the Annual Rental for the Premises, as defined in Section 25.5 hereof, less the proceeds (if any) of any reletting of the Premises which remain after deducting Landlord’s reasonable expenses in connection with such reletting. Such expenses shall include, without limitation, removal, storage and remodeling costs, the cost of painting and refurbishing the Premises and attorneys’ and brokers’ fees.

25.5 Annual Rental. The Annual Rental for the Premises shall be the total of the Fixed Rent, Tenant’s Share of Real Estate Taxes and Operating Expenses, and all other charges payable by Tenant (whether or not to Landlord) for the lease year ending next prior to such termination or repossession.

25.6 Intentionally Deleted.

25.7 Remedies Cumulative. Any and all rights and remedies which Landlord may have under this Lease and at law and equity shall be cumulative and shall not be deemed inconsistent with each other, and any two or more of all such rights and remedies may be exercised at the same time insofar as permitted by law.

25.8 Landlord’s Right to Cure Defaults. Landlord shall have the right but not the obligation, to cure at any time upon ten (10) days written notice, and in the event of an
emergency without notice, any default by Tenant under the Lease. Whenever Landlord so elects, all costs and expenses incurred by Landlord, including reasonable attorney’s fees, in curing a default shall be paid by Tenant to Landlord on demand, as additional rent hereunder, together with interest thereon from the date of payment by Landlord to the date of payment Tenant at the rate of twelve (12%) percent per annum.

25.9 Costs of Enforcement. Landlord and Tenant shall each pay all reasonable costs and expenses (including without limitation reasonable attorneys’ fees) incurred by the other party in enforcing its obligations or the other party’s rights under this Lease, provided that the other party shall prevail.

26. NO WAIVER; NO ACCORD AND SATISFACTION

26.1 No Waiver. Any consent or permission by Landlord or Tenant to any act or omission which otherwise would be a default hereunder or any waiver by Landlord or Tenant of the terms, covenants or conditions herein, shall not in any way be held or construed to operate so as to impair the continuing obligation of any term, covenant or condition herein, or to permit any similar acts or omissions. The failure of Landlord to seek redress for a violation of, or to insist upon the strict performance of, any covenant, condition or obligation of this Lease shall not be deemed a waiver of such violation nor prevent a subsequent act, which would have originally constituted a violation, from having all the force and effect of an original violation. The receipt by Landlord of any rent with knowledge of any default hereunder shall not be deemed to have been a waiver of such default, unless such waiver is in writing signed by the Landlord.

26.2 No Accord and Satisfaction. No acceptance by Landlord of a lesser sum than any sum due under any provision of this Lease shall be deemed to be other than on account of the earliest installment of such sum due, nor shall any endorsement or statement on any check or letter accompanying any check or payment be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to any rights to recover the balance of such installment or pursue any other remedy in this Lease provided.

27. RECORDING

Landlord and Tenant agree not to record this Lease or any portion thereof; however, Landlord and Tenant each agree upon request of the other to execute and deliver to the other a notice of lease or short form of lease suitable for recording and setting forth the name of the Landlord and the Tenant, the term of the Lease and an appropriate description of the Premises.

28. LIABILITY

In no event shall Landlord be liable for any default hereunder unless the same occurs during and within the period of time that it is the owner of and in possession of Landlord’s Property. In no event and under no circumstances shall Landlord be liable to Tenant for any consequential damages in connection with any act of Landlord, its agents or servants. The placement by Tenant of any goods, wares and merchandise in the Premises or any areas within Landlord’s Property shall be at the sole risk and hazard of Tenant. Neither Landlord nor any agent or employee of Landlord shall be liable for any damage to the person or property of Tenant or Tenant’s Agents, including but not limited to damage resulting from the following, unless
solely due to the gross negligence or willful misconduct of Landlord: (a) steam, gas, electricity, water, rain or snow, leaks from pipes, appliances or plumbing, falling plaster or other building components, dampness or any other cause; (b) any hidden defect on the Premises, the Building or Landlord’s Property; and/or (c) acts or omissions of persons occupying adjacent premises or other parts of the Building or otherwise entitled to use Landlord’s Property.

Notwithstanding anything to the contrary contained in this Lease, it is specifically understood and agreed that the monetary liability of Landlord hereunder shall be limited to its equity in the Premises in the event of a default under this Lease by Landlord. In furtherance of the foregoing, Tenant hereby agrees that any judgment it may obtain against Landlord as a result of a breach of any of the terms, covenants or conditions hereof shall be enforceable solely against Landlord’s fee interest in the Premises. Nothing in this Lease shall be construed in any event whatsoever to impose any personal liability upon any trustee, beneficiary, shareholder or officer of Landlord.

Except as hereafter provided, Tenant be not be liable to Landlord for consequential damages in connection with any act of Tenant; provided, however, the foregoing shall not be limit in any way the damages to which Landlord shall be entitled (which shall include all direct, indirect and consequential damages resulting therefrom) in the event of: (1) the failure of Tenant to vacate the Premises as and when required under the terms of this Lease, including without limitation damages pursuant to Tenant’s indemnification contained in Section 22P hereof; (ii) the failure of Tenant to comply with the provisions of Article 35 hereof; (iii) any indemnifications of Landlord contained in this Lease; or (iv) any liability relating to or arising from Tenant’s particular use of the Premises (as opposed to general office use).

29. **FORCE MAJEURE**

In any case where either party is required to do any act, the time for the performance thereof shall be extended by a period equal to any delay caused by or resulting from Act of God, war, civil commotion, fire or other casualty, labor difficulties, shortages of labor, materials or equipment, governmental regulations, or other causes beyond such party’s reasonable control, whether such times are designated by a fixed time or a “reasonable time”. This clause shall not be applicable to any payment of rent or other charges due from Tenant to Landlord.

30. **MECHANICS LIENS**

Tenant shall not permit any mechanics’ or materialmen’s or other liens to stand against the Premises, the Building or Landlord’s Property for any labor or materials furnished Tenant in connection with work of any character performed on the Premises by, for, or at the direction of Tenant. Any such lien shall be discharged by payment in full within thirty (30) days thereafter or by filing the bond required by law. If Tenant fails to discharge any such lien, Landlord may do so at Tenant’s expense and Tenant shall reimburse Landlord for any expense or cost incurred by Landlord in connection therewith, within fifteen (15) days of receipt of Landlord’s bill therefor.

31. **DEFINITIONS**

The words “Landlord” and “Tenant” as used herein shall include their respective heirs, executors, administrators, successors, representatives, assigns, invitees, agents, and servants.
The words “it”, “he” and “him” where applicable apply to the Landlord or Tenant regardless of gender, number, corporate entity, trust or other body. If more than one party signs this Lease as Tenant, the covenants, conditions and agreements of Tenant shall be joint and several obligations of each party.

32. **SEVERABILITY CLAUSE**

If any term, covenant, condition or provision of this Lease or the application thereof to any person or circumstance is declared invalid or unenforceable by the final ruling of a court of competent jurisdiction having final review, the remaining terms, covenants, conditions and provisions of this Lease and their application to persons or circumstances will not be affected thereby and will continue to be enforced and recognized as valid agreements of the parties; in the place of such invalid or unenforceable provision, there will be substituted a like, but valid and enforceable provision which comports to the findings of the aforesaid court and most nearly accomplishes the original intention of the parties.

This Lease may be executed in any number of counterparts and each fully executed counterpart shall be deemed an original.

33. **NOTICES**

Any notices required under this lease shall be in writing and delivered by hand or mailed by registered or certified mail to Tenant c/o Director of Real Property Services, 4th Floor, Ballou Hall, Tufts University, Medford, Massachusetts 02155, or to Landlord care of its Management Agent, Whittier Partners, 155 Federal Street, Boston, Massachusetts 02110. Landlord or Tenant may by proper notice to the other as provided herein, change its notice address.

34. **HOLDING OVER**

If for any reason Tenant retains possession of the Premises or any part thereof after the termination of the Term or any extension thereof, such holding over shall constitute a tenancy from month to month, terminable by either party upon thirty (30) days prior written notice to the other party, and Tenant shall pay Landlord monthly rental during the month to month tenancy computed as the rent (including Fixed Rent and all additional rent) payable hereunder for the final month of the last year of the Term prior to such holding over plus one hundred (100%) percent of said rent. The month to month tenancy shall otherwise be on the same terms and conditions as set forth in the Lease, as far as applicable.

35. **ENVIRONMENTAL HAZARDS**

Except for small amounts of materials customarily associated with office use (provided same is stored, used and disposed of in compliance with all Environmental Requirements), Tenant and Tenant’s Agents, shall not use, maintain, generate, allow or bring on the Premises or Landlord’s Property or transport or dispose of, on or from the Premises or Landlord’s Property (whether into the ground, into any sewer or septic system, into the air, by removal off-site or otherwise) any Hazardous Matter (as hereinafter defined).
Tenant shall promptly deliver to Landlord copies of any notices, orders or other communications received from any governmental agency or official affecting the Premises and concerning alleged violations of the Environmental Requirements (hereinafter defined).

Tenant shall save Landlord (together with its officers, directors, stockholders, partners, beneficial owners, trustees, employees, agents, contractors, attorneys, and mortgagees) harmless and indemnified from and against any and all Environmental Damages (hereinafter defined) which may be asserted by Tenant, any other person or entity, or government agency or which the indemnified parties may sustain or be put to on account of: (1) the presence or release of any Hazardous Matter upon, in or from the Premises during the Term and during any period when the Tenant, or Tenant’s Agents are occupying the Premises or any part thereof, unless solely caused by the actions of third parties not under the control or supervision of Tenant or Tenant’s Agents; (2) the activities or other action or inaction of Tenant or Tenant’s Agents in violation of Environmental Requirements; and (3) the breach of any of Tenant’s obligations under this Article 35 during the Term hereof and any period in which Tenant or Tenant’s Agents occupy the Premises.

The provisions of this Article 35 shall be in addition to any other obligations and liabilities Tenant may have to Landlord under this Lease or otherwise at law or in equity, and in the case of conflict between this Article 35 and any other provision of this Lease, the provision imposing the most stringent requirement on Tenant shall control. The obligations of Tenant under this Article 35 shall survive the expiration or termination of this Lease and the transfer of title to Landlord’s Property.

The following terms as used herein shall have the meanings set forth below:

“Hazardous Matter” shall mean any substance: (i) which is or becomes defined as Hazardous Substance, Hazardous Waste, Hazardous Material or Oil under The Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 et seq., M.G.L. Chapter 21C, M.G.L. Chapter 21D or M.G.L. Chapter 21E, and the regulations promulgated thereunder, as same may be amended from time to time; or (ii) which is toxic, explosive, corrosive, flammable, infectious, radioactive, carcinogenic, mutagenic or otherwise hazardous to health or the environment and which is or becomes regulated and the presence of which requires investigation or remediation pursuant to any Applicable Law.

“Environmental Requirements” shall mean all Applicable Law, the provisions of any and all Approvals, and the terms and conditions of this lease insofar as same relate to the release, maintenance, use, keeping in place, transportation, disposal or generation of Hazardous Matter, including without limitation those pertaining to reporting, licensing, permitting, health and safety of persons, investigation, containment, remediation, and disposal.

“Environmental Damages” shall mean all liabilities, injuries, losses, claims, damages (whether special, consequential or otherwise), settlements, attorneys’ and consultants’ fees, fines and penalties, interest and expenses, and costs of environmental site investigations, reports and cleanup, including without limitation costs incurred in connection with: any investigation or assessment of site conditions or of health of persons using the Building or Landlord’s Property, to the extent required or prudent due to the presence or suspected presence of Hazardous Matter.
36. **GOVERNING LAW**

This Lease shall be governed exclusively by the provisions hereof and by the laws of the Commonwealth of Massachusetts, as the same may from time to time exist.

37. **BROKERAGE**

Tenant and Landlord each warrant and represent that neither has dealt with any broker in connection with the consummation of this Lease, except for Whittier Partners, and in the event any brokerage claim is made against either party predicated upon prior dealings with the other party, except by Whittier Partners, such party shall defend the claim against the other party and save harmless and indemnify the other party on account of loss, cost or damage which may arise by reason of such claim.

38. **WAIVER OF COUNTERCLAIMS**

In the event Landlord commences any proceedings for non-payment of rent (Fixed Rent or additional rent) or for recovering possession of the Premises, Tenant shall not interpose any counterclaim of whatever nature or description in any such proceeding except for compulsory counterclaims. This shall not, however, be construed as a waiver of the Tenant’s right to assert such claims in any separate action or actions brought by Tenant.

39. **INTENTIONALLY DELETED**

40. **ENTIRE AGREEMENT**

The parties acknowledge that in the course of negotiating this Lease their respective representative have gradually reached preliminary agreement on the several terms set forth in this instrument. The parties acknowledge and agree that at all times they have intended that none of such preliminary agreements (either singly or in combination) shall be binding on either party, and that they shall be bound to each other only by a single, formal, comprehensive document containing all of the agreements of the parties, in final form, which has been executed by Landlord or a duly authorized representative of Landlord and by Tenant. The parties acknowledge that none of the prior oral and written agreements between them (and none of the representations on which either of them has relied) relating to the subject matter of this Lease shall have any force or effect whatever, except as and to the extent that such agreements and representations have been incorporated in this Lease.

41. **TENANT’S OPTION TO EXTEND THE TERM**

41.1 **Exercise and Effect of Option.** Tenant shall have the option to extend the Term of this Lease for one (1) additional five (5) year term (the “extension period”), provided that: (i)
Tenant is not in default after any notice and cure periods hereunder under any of the terms and conditions of this lease at the time it exercises such option to extend or at the commencement of such extension; and (ii) Tenant has given Landlord written notice of its election to extend the Term no later than nine (9) months prior to the expiration date of the original Term. If Tenant fails to give such notice to Landlord by such date, Tenant’s rights under this Article 41 shall be deemed waived and of no further force and effect. In the event that Tenant shall extend the Term as aforesaid, such extension shall be upon the same terms and conditions as set forth herein, except that:

(a) After the extension period, there shall be no further option to extend the Term; and

(b) The annual Fixed Rent hereunder shall be adjusted as provided in this Article.

41.2 Fixed Rent During Extension Period. The annual Fixed Rent hereunder during the extension period shall be determined and adjusted as follows:

During such extension period, commencing on the first day of the sixth lease year, the annual Fixed Rent payable hereunder shall be in the amount of the Fair Market Rent, as hereinafter determined, but in no event shall such annual Fixed Rent be less than $150,880 per year.

The “Fair Market Rent” shall be the market rate for the rental of the Premises, based upon the average current market rate of space leased in the Building and the terms of this Lease, as of the date of the expiration of the Term, but in no event shall the Fair Market Rent be less than $150,880 per year, and the Fair Market Rent shall be determined as follows:

(i) After the exercise by Tenant of its option to extend the Term, Landlord shall, not later than 60 days prior to the expiration of the Term, advise Tenant in writing its determination of the Fair Market Rent for the Premises for the extension period. Tenant shall be deemed to have accepted the Fair Market Rent contained in Landlord’s notice, and such rental rate shall be conclusively deemed to be the Fair Market Rent of the Premises for the extension Term, unless Tenant notifies Landlord in writing, within 10 days after Landlord’s notice, that Tenant disputes the aforementioned determination by Landlord.

(ii) In the event that Tenant disputes the determination of the Fair Market Rent by Landlord (as provided above), and the Landlord and Tenant are unable to agree on the Fair Market Rent for the Premises at least 30 days prior to the expiration of the Term, the same shall be determined by arbitration as follows:

1. Landlord and Tenant shall each promptly designate and notify the other party of the name and address of an appraiser selected by such party. Such two appraisers shall, within twenty (20) days after the designation of the second of the appraisers, make their determinations of the Fair Market Rent in writing and give notice thereof to each other and to Landlord and Tenant. Such two (2) appraisers shall have twenty (20) days after the receipt of notice of each other’s determination to confer with each other and to attempt to reach agreement as to the determination of the Fair Market Rent. If such appraisers shall concur in such determination,
they shall give notice thereof to Landlord and Tenant and such concurrence shall be final and binding upon Landlord and Tenant. If such appraisers shall fail to concur as to such determination within said twenty (20) day period, they shall give notice thereto to Landlord and Tenant and shall immediately designate a third appraiser. If the two appraisers shall fail to agree upon the designation of such third appraiser within five (5) days after said twenty (20) day period, then they or either of them shall give notice of such failure to agree to Landlord and Tenant and if Landlord and Tenant fail to agree upon the selection of such third appraiser within five (5) days after the appraiser(s) appointed by the parties give notice as aforesaid, then either party on behalf of both may apply to the American Arbitration Association or any successor thereto, or on his or her failure, refusal or inability to, act, to a court of competent jurisdiction, for the designation of such third appraiser. The third appraiser shall conduct such hearings and investigations as he or she may deem appropriate and shall, within ten (10) days after the date of his or her designation, make an independent determination of the Fair Market Rent, which shall be final and binding upon Landlord and Tenant.

2. All appraisers shall be real estate appraisers or consultants who shall have had at least seven (7) years continuous experience in the business of appraising real estate in the downtown Boston real estate leasing market.

3. The determination of the appraisers, as provided above, shall be conclusive upon the parties and shall have the same force and effect as a judgment made in a court of competent jurisdiction.

4. Each party shall pay fees, costs and expenses of the appraiser selected by it and its own counsel fees and one-half (1/2) of all other expenses and fees of any such appraisal.

If the parties are unable to agree on the Fixed Rent (or the arbitration has not concluded) prior to the first day of an extension period, Tenant shall make monthly payments on account of Fixed Rent (in addition to all other rent and other payments hereunder) in the amount of 125% of the Fixed Rent payable during the preceding lease year of the Term, until such annual Fixed Rent amount has been established as herein provided, at which time an appropriate retroactive rent adjustment payment or credit shall be made, if necessary.

41.3 Additional Rent during Extension Period. In addition to Fixed Rent (as determined and adjusted as provided in this Article), during the extension period Tenant shall continue to pay all other rent as provided in this lease, including Tenant’s share of Operating Expenses and Real Estate Taxes and all other charges hereunder.

IN WITNESS WHEREOF, the parties hereunto set their hands and seals as of November 10, 1993.

TENANT: TRUSTEES OF TUFTS COLLEGE

By: /s/ Steven S. Manos

Its Vice President & Treasurer

- 33 -
LANDLORD:

KING REAL ESTATE CORPORATION,
Trustee of Kneeland Street Real Estate Trust

By: /s/ Karl Greenman
   Its Vice President & Treasurer

- 34 -
EXHIBIT B

Initial Tenant Improvements

- 36 -
This Amendment to Lease ("Amendment"), entered into as of March 31, 1998, is by and between KING REAL ESTATE CORPORATION, AS TRUSTEE OF KNEELAND STREET REAL ESTATE TRUST ("Landlord"), and TRUSTEES OF TUFTS COLLEGE ("Tenant").

Landlord and Tenant entered into a lease, dated November 10, 1993 (the "Lease"), for certain premises consisting of the entire 6th floor of the building located at 75 Kneeland Street, Boston, Massachusetts, as more particularly described in the Original Lease (the "Premises"). Terms used in this Amendment which are defined in the Lease and which are not specifically defined herein shall have the meaning given to them in the Lease.

Landlord and Tenant desire to extend the term of the Lease and amend certain other provisions of the Lease.

Now, therefore, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant agree as follows:

1. TERM.
   (a) The Term of the Lease (which currently expires on December 31, 1998) is extended for a period of five (5) years, commencing January 1, 1999, and ending on December 31, 2003 (the "Extension Term").
   (b) Article 41 of the Lease (Tenant’s Option to Extend the Term), is hereby deleted.

2. FIXED RENT.
   (a) Prior to the commencement of the Extension Term, the annual Fixed Rent shall continue to be due and payable in the amounts provided for in Section 4 of the Lease.
   (b) Commencing on the first day of the Extension Term and for the entire Extension Term, the Fixed Rent due and payable by the Tenant shall be as follows:

<table>
<thead>
<tr>
<th>Lease Year</th>
<th>Annual Fixed Rent</th>
<th>Monthly Installments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2 and 3 (1/1/99- 12/31/01)</td>
<td>$233,864.00</td>
<td>$19,488.70</td>
</tr>
<tr>
<td>4 and 5 (1/1/02 - 12/31/03)</td>
<td>$271,584.00</td>
<td>$22,632.00</td>
</tr>
</tbody>
</table>
3. OPERATING EXPENSES AND REAL ESTATE TAXES.

(a) Prior to the commencement of the Extension Term, additional rent payments on account of Operating Expenses and Real Estate Taxes shall continue to be due and payable in the amounts provided for in Section 6 of the Lease.

(b) Commencing on the first day of the Extension Term, the Operating Expenses Base, as provided in Section 6.1 of the Lease, shall be the Operating Expenses for calendar year 1998, and Tenant shall pay, as additional rent as provided in the Lease, 7.143% of any Operating Expenses in excess of the Operating Expenses Base.

(c) Commencing on the first day of the Extension Term and for the entire Extension Term, the Tax Base as provided in Section 6.3 of the Lease shall be the Real Estate Taxes for Fiscal Year 1999 (July 1, 1998 to June 30, 1999), and Tenant shall pay, as additional rent as provided in the Lease, 7.143% of any Real Estate Taxes in excess of the Tax Base.

4. NOTICES

Landlord’s address for notices and for the payment of rent, as provided in Sections 5 and 33 of the Lease, shall be as follows:

c/o King Associates LLP
21 Elkins Street
South Boston, MA 02127

5. RATIFICATION.

In all other respects, the Lease shall remain unmodified and in full force and effect.

6. CERTIFICATION

Tenant hereby certifies that the Lease is in full force and effect, that there have been no other modifications or amendments thereto, that Landlord has fulfilled all of its obligations under the Lease, and Landlord is not in default under any of the terms and conditions of the Lease. The Lease, as amended by this Amendment, is hereby ratified and confirmed by Landlord and Tenant.

7. BINDING

This agreement shall be binding upon and inure to the benefit of the parties hereto, their heirs, executors administrators, successors, in interest and assigns.
Executed as a sealed instrument as of the day and year first above written.

**LANDLORD:**

KING REAL ESTATE CORPORATION,
AS TRUSTEE OF KNEELAND STREET REAL ESTATE TRUST
By King Associates LLP, as Managing Agents

By: /s/ Steven S. Manos
   Name: Steven S. Manos
   Title: Executive Vice President

**TENANT:**

TRUSTEES OF TUFTS COLLEGE

By: /s/ Alden I. Gifford
   Name: Alden I. Gifford
   Title: Partner
This Third Amendment to Lease (“Third Amendment”), entered into as of January 28, 2002, by and between KING REAL ESTATE CORPORATION, AS TRUSTEE OF KNEELAND STREET REAL ESTATE TRUST (“Landlord”), and PARATEK PHARMACEUTICALS, INC. (“Tenant”).

Landlord and the Trustees of Tufts College entered into a Lease dated November 10, 1993, as amended by Amendment to Lease dated March 31, 1998, which lease was assigned to Tenant and further amended by Assignment, Assumption, Amendment and Consent dated September 1, 2001 (together, the “Lease”), for certain premises consisting of the entire 6th floor (the “Premises”) of the building located at 75 Kneeland Street, Boston, Massachusetts (the “Building”), as more particularly described in the Lease. Terms used in this Third Amendment which are defined in the Lease and which are not specifically defined herein shall have the meaning given to them in the Lease.

Landlord and Tenant desire to extend the term of the Lease and amend certain other provisions of the Lease.

Now, therefore, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant agree as follows:

1. TERM.
   (a) The Term of the Lease (which currently expires on December 31, 2003) is extended for a period of 13 years, and shall now expire on December 31, 2016 (the period commencing January 1, 2004, and ending on December 31, 2016 is referred to herein as the “Extended Term”).
   (b) Section 41 of the Lease (containing an option to extend the Term), is hereby deleted and of no further force and effect.
   (c) Section 8.C. of the Lease (containing a right to terminate the Lease) is hereby deleted and of no further force and effect.

2. RENT.
   (a) Prior to the commencement of the Extended Term, the annual Fixed Rent shall continue to be due and payable in the amounts provided for in the Lease.
Commencing on the first day of the Extended Term, and thereafter through the end of the Extended Term, the Fixed Rent due and payable by the Tenant under the Lease shall be as follows:

<table>
<thead>
<tr>
<th>Lease Year</th>
<th>Annual Fixed Rent</th>
<th>Monthly Installments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2 and 3 (1/10/04 – 12/31/04)</td>
<td>$467,728.00</td>
<td>$38,977.33</td>
</tr>
<tr>
<td>2, 3 and 4 (1/1/05 – 12/31/07)</td>
<td>$512,992.00</td>
<td>$42,749.33</td>
</tr>
<tr>
<td>5 through 13 (1/1/08 – 12/31/16)</td>
<td>Fair Market Rent, payable in equal monthly installments</td>
<td></td>
</tr>
</tbody>
</table>

(c) With respect to the 5th through 13th Lease Years (January 1, 2008 through December 31, 2016), the Fixed Rent payable during such period shall be “Fair Market Rent”, i.e., the greater of (i) the Fixed Rent payable during the 4th Lease Year or (ii) the “Net Effective Rent” for the rental of the Premises, as of the first day of the 5th Lease Year. For purposes hereof, “Net Effective Rent” shall mean the rent (e.g., rents generally offered for leases which by their term provide for a base rent only with a separate rental payment for Tenant’s allocable share of the operating expenses and real estate taxes of the Building, excluding therefrom any market concessions such as work performed by landlord, tenant improvements allowances or leasing commissions or other costs and expenses for the lease transaction because Landlord is not incurring those costs upon a renewal), generally in effect for comparable space on comparable floors with comparable views in comparable office buildings of age similar to the Building located in the Boston commercial office market with tenants of comparable financial credit for leases commencing on or about the date for which the “Net Effective Rent” is to be determined. “Fair Market Rent” shall be determined as follows:

1. Landlord shall advise Tenant in writing (“Landlord’s Notice”) of its determination of the Fair Market Rent not more than 180 days and not less than 120 days prior to the beginning of the 5th Lease Year (if Landlord shall fail to send Landlord’s Notice by such date, Tenant shall send a written reminder notice to Landlord, and Landlord shall send Landlord’s Notice within 15 days after receipt of said reminder notice). Tenant shall be deemed to have accepted the rental rate contained in Landlord’s notice, and such rental rate shall be conclusively deemed to be the Fair Market Rent unless Tenant notifies Landlord in writing, within 15 days after Tenant received Landlord’s Notice, that Tenant disputes Landlord’s determination.

2. If Tenant disputes the determination of the Fair Market Rent by Landlord (as provided above), and Landlord and Tenant are unable to agree on the Fair Market Rent for the Premises within thirty (30) days, the same shall be determined as follows:

Landlord and Tenant shall, within thirty (30) days following the expiration of said thirty (30) day period provided in subsection (2) above, each appoint a licensed real estate broker who has been actively engaged in the leasing of office space in
comparable office buildings in the Boston real estate market for not less than ten (10) years immediately preceding the date of appointment and shall not be a sole practitioner and shall not have represented such party in the prior 5 years (each an "Appraiser" and collectively, the "Appraisers"). Within thirty (30) days after being retained, the Appraisers shall each make an independent determination of Fair Market Rent. If the difference between the Appraisers’ values is equal to or less than five percent (5%), the Fair Market Rent shall be the average of the sum of the Appraisers’ values. If the difference between the Appraisers’ values is greater than five percent (5%), then the Appraisers shall jointly and promptly choose a third real estate broker, having the same qualifications as those set forth above for Appraisers (the “Arbiter”) to whom the Appraisers shall submit in writing their respective determinations of the Fair Market Rent. Within thirty (30) days after being retained, the Arbiter shall offer the Arbiter’s determination of Fair Market Rent. If the Fair Market Rent determined by the Arbiter lies between the Appraisers’ values, then Fair Market Rent shall be the average of the sum of (A) the Arbiter’s value and (B) the Appraiser’s value nearest to the Arbiter’s value. If the Arbiter’s determination of Fair Market Rent is either higher or lower than both of the Appraisers’ values, then Fair Market Rent shall be the average of the sum of the two nearest values.

If the Appraisers cannot agree on an Arbiter within ten (10) business days after the expiration of the Appraisal Period, then either party may apply to the American Arbitration Association office in Boston, Massachusetts in charge of real estate valuation arbitrations for appointment of the Arbiter.

If neither the Appraisers nor the Arbiter have finally determined Fair Market Rent prior to the date on which Fixed Rent based upon such Fair Market Rent is to go into effect pursuant to Section 2(b) herein, Tenant shall pay Fixed Rent based upon Landlord’s Notice (the “Interim Rent”), subject to adjustment upon final determination of the Fair Market Rent. In the event the Fair Market Rent, as finally determined by the above procedure, is (i) in excess of the Interim Rent, Tenant, within thirty (30) days following such final determination, shall pay over to Landlord all such accumulated excess, or (ii) less than the Interim Rent, Landlord, within thirty (30) days following such final determination, shall pay over to Tenant all such accumulated excess or shall allow Tenant a credit equal to such excess against Fixed Rent next coming due hereunder.

3. OPERATING EXPENSES AND REAL ESTATE TAXES

   (a) Prior to the commencement of the Extended Term, additional rent on account of Operating Expenses and Real Estate Taxes shall continue to be due and payable as provided in the Lease.

   (b) Commencing on the first day of the Extended Term and thereafter through the end of the Extended Term, the “Operating Expenses Base” shall be defined as the Operating Expenses (as defined in the Lease) for calendar year 2003, and Tenant shall pay, as additional rent, Tenant’s Proportionate Share of any Operating Expenses in excess of the Operating Expenses Base. For purposes of this Section 3(b) and (c), “Tenant’s Proportionate Share” during the Extended Term shall be defined as 7.145%.
(c) Commencing on the first day of the Extended Term and thereafter through the end of the Extended Term, the “Tax Base” shall be defined as the Real Estate Taxes (as defined in the Lease) for fiscal year 2004 (July 1, 2003 to June 30, 2004), and Tenant shall pay, as additional rent, Tenant’s Proportionate Share of any Real Estate Taxes in excess of the Tax Base.

(d) On the first day of each month throughout the Term (including prior to the commencement of the Extended Term and during the Extended Term), Tenant shall pay to Landlord, on account towards Tenant’s share of anticipated increases in Operating Expenses and Taxes above the Operating Expenses Base or the Tax Base, respectively, one-twelfth of the total amount reasonably estimated by Landlord to be Tenant’s share thereof for such Operating Year or Tax Year.

4. SHAFTWAY
From and after the execution date hereof, Tenant shall have, as appurtenant to the Premises, the right and easement to install, maintain and use utility lines and ventilation ducts within the shaftway for the lobby manual passenger elevator. Tenant shall be responsible, at its sole cost and expense, for the dismantling of the existing elevator in such shaftway, for properly securing the elevator doors on each floor of the Building, and for any installations, all of which work shall be performed in accordance with all Applicable Law and shall subject to the provisions of the Lease regarding Alterations.

5. RIGHT TO PURCHASE THE PROPERTY
(a) Provided (i) this Lease is then in full force and effect, and (ii) Tenant is not in default hereunder beyond any applicable notice, grace or cure periods, and (iii) Tenant has a lease or leases in effect for and is occupying at least 3 full floors of the Building, then, commencing as of the first day of the Extension Term, and not before, in the event that Landlord shall desire to sell the Property, prior to marketing the Property to the general public, Landlord shall notify Tenant in writing of its desire to sell the Property and, for a period of 30 days following such notice, Tenant shall have the exclusive right to negotiate with Landlord regarding the purchase of the Property by Tenant; provided by granting Tenant such exclusive right to negotiate, Landlord shall not thereby be obligated in any way to sell the Property to Tenant.

(b) The foregoing rights shall not apply with respect to (i) any sale or transfer of the Property to or among the beneficiaries of Landlord, or the partners of any beneficiaries of Landlord, or any family members, or to any sale or transfer for nominal consideration (provided in the case of such a sale or transfer, the provisions of this section shall survive and remain in force and effect with respect to any subsequent sale) or (ii) a sale in connection with, or a deed in lieu of, a foreclosure, or a sale by operation of law (provided in the case of such a sale or transfer, the right of Tenant hereunder shall terminate and be of no further force and effect), and Tenants rights hereunder shall specifically be subordinate to the rights of all mortgagees.

(c) Tenant’s rights under this Section shall in any event terminate and be void and of no further force and effect upon the earlier of: (i) the end of the 12th Lease Year (December 31,
(d) Notwithstanding anything else to the contrary, this Section 5 shall be of no force and effect, and shall be deemed void ab initio, if, prior to the first day of the Extended Term: (i) the Property shall have been sold by Landlord (except for a sale or transfer of the Property to or among the beneficiaries of Landlord, or the partners of any beneficiaries of Landlord, or any family members, or for a sale or transfer for nominal consideration, which sale or transfer shall be subject to the rights of the Tenant hereunder); or (ii) the Property shall be under a written agreement of sale with a prospective purchaser, and subsequent to the first day of the Extended Term the Property shall be sold to such purchaser, or its nominee or assignee.

6. RATIFICATION.

In all other respects, the Lease shall remain unmodified and in full force and effect. The Lease, as amended by this Third Amendment, is hereby ratified and confirmed by Landlord and Tenant.

7. CERTIFICATION

Tenant hereby certifies that the Lease is in full force and effect, that there have been no other modifications or amendments thereto, that Landlord has fulfilled all of its obligations under the Lease, and Landlord is not in default under any of the terms and conditions of the Lease.

8. BINDING

This agreement shall be binding upon and inure to the benefit of the parties hereto, their heirs, executors, administrators, successors, in interest and assigns.

Executed as a sealed instrument as of the day and year first above written.

LANDLORD:                          TENANT:

KING REAL ESTATE CORPORATION, PARATEK PHARMACEUTICALS, INC.
AS TRUSTEE OF KNEELAND STREET REAL ESTATE TRUST
By its Managing Agents
KING ASSOCIATES LLP

By: /s/ Alden I. Gifford Jr. By: /s/ George C. Hillman
Name: Alden I. Gifford Jr. Name: George C. Hillman
Title: Partner Title: Executive Vice President
COLLABORATIVE RESEARCH AND LICENSE AGREEMENT

between

WARNER CHILCOTT COMPANY, INC.

and

PARATEK PHARMACEUTICALS, INC.

July 2, 2007

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
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Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
COLLABORATIVE RESEARCH AND LICENSE AGREEMENT

This Collaborative Research and License Agreement (this “Agreement”) is made and entered into as of July 2, 2007 (the “Effective Date”) between Paratek Pharmaceuticals, Inc., a Delaware corporation with offices at 75 Kneeland Street, Boston, MA 02111 (“Paratek”), and Warner Chilcott Company, Inc., a corporation organized and existing under the laws of Puerto Rico with offices at Union Street, Road 195 Km 1.1, Fajardo, PR 00738 (“WCCI”). Each of WCCI and Paratek is sometimes referred to individually herein as a “Party” and WCCI and Paratek are sometimes collectively referred to herein as the “Parties.”

WITNESSETH:

WHEREAS, Paratek has developed expertise in the design, synthesis and characterization of novel and improved classes of tetracycline derived compounds for use as human pharmaceuticals and owns or otherwise controls certain technology related thereto;

WHEREAS, WCCI has developed expertise in the development and commercialization of human pharmaceuticals and is engaged in the development and commercialization of pharmaceutical compounds for the treatment, prevention, and diagnosis of acne vulgaris and rosacea; and

WHEREAS, both Parties desire to enter into a development program with the objective of having WCCI develop and commercialize tetracycline derived compounds for the treatment of acne vulgaris and rosacea.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and for other good and valuable consideration, the Parties hereto, intending to be legally bound, hereby agree as follows:

ARTICLE 1: DEFINITIONS

Whenever used in this Agreement with an initial capital letter, the terms defined in this Article 1 shall have the meanings specified.

1.1 “Adverse Event” means any serious untoward medical occurrence in a patient or subject who is administered a Lead Candidate or Product, but only if and to the extent that such serious untoward medical occurrence is required under Applicable Law, rules or regulations to be reported to the FDA or any other Regulatory Authority.

1.2 “Affiliate” means any corporation, firm, partnership or other entity, which directly or indirectly controls or is controlled by or is under common control with a Party to this Agreement. For purposes of this definition, “control” means ownership, directly or through one or more Affiliates, of (a) fifty percent (50%) or more of the shares of stock entitled to vote for the election of directors, in the case of a corporation, or (b) fifty percent (50%) or more of the equity interests in the case of any other type of legal entity or status as a general partner in any partnership, or (c) any other arrangement whereby a Party controls or has the right to control the Board of Directors or equivalent governing body of a corporation or other entity.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
1.3 “Alliance Manager” means the person appointed by each Party to serve as such Party’s principal coordinator and liaison for the conduct of the Backup Compound Research Programs and the Development of Lead Candidates and Products. The Alliance Manager appointed by WCCI is referred to as the “WCCI Alliance Manager,” and the Alliance Manager appointed by Paratek is referred to as the “Paratek Alliance Manager.”

1.4 “Annual Net Sales” means the aggregate Net Sales during a particular Calendar Year.

1.5 “Applicable Law” means all Federal, state, local national and supra-national laws, statutes, rules and regulations, including any rules, regulations, guidelines or requirements of Regulatory Authorities, national securities exchanges or securities listing organizations that may be in effect from time to time during the term and applicable to a particular activity hereunder.

1.6 “Backup Compounds” means the Paratek Compounds that are listed on the Backup Compound List attached hereto as Schedule 2, as amended from time to time.

1.7 “Backup Compound Research Plan” means the written plan describing the research activities to be carried out by each Party during each Contract Year during the Backup Compound Research Program Term in conducting the Backup Compound Research Program pursuant to this Agreement, as such written plan may be amended, modified or updated. Each Backup Compound Research Plan shall be prepared by, or at the direction of, the Alliance Managers and approved by the JSC as soon as practicable after WCCI determines to conduct research on, or to identify, any Backup Compound pursuant to Section 3.5 and shall be attached to the minutes of the meeting of the JSC at which such plan was approved.

1.8 “Backup Compound Research Program” means the collaborative research program conducted by Paratek and WCCI for the purpose of identifying or further researching or developing Backup Compounds pursuant to Article 3 of this Agreement and reflected in the Backup Compound Research Plans.

1.9 “Backup Compound Research Program Term” means the date of approval by the JSC of a Backup Compound Research Plan and shall continue for such period as the Parties shall mutually agree in the Backup Compound Research Plan, subject to earlier termination upon termination or expiration of this Agreement pursuant to Article 10 hereof.

1.10 “Calendar Quarter” means the period beginning on the Effective Date and ending on the last day of the calendar quarter in which the Effective Date falls, and thereafter each successive period of three (3) consecutive calendar months ending on March 31, June 30, September 30 or December 31.

1.11 “Calendar Year” means each successive period of twelve (12) months commencing on January 1 and ending on December 31.

1.12 “Clinical Trials” means, collectively, any Phase I Clinical Trial, Phase II Clinical Trial, and/or Phase III Clinical Trial.

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1.13 “Clinical Trial Data” means all data, results and information produced in the conduct by or on behalf of WCCI of any Clinical Trials.

1.14 “Commercialization” or “Commercialize” means, with respect to a Product, any and all activities directed to the pre-marketing, marketing, detailing, promotion, distribution and sale of such Product after the date of filing of an NDA with respect to such Product. When used as a verb, “Commercializing” means to engage in Commercialization and “Commercialized” shall have a corresponding meaning.

1.15 “Commercially Reasonable Efforts” or “Commercially Reasonable” means the efforts and resources comparable to those undertaken by [***], as applicable, [***] of similar products that are not subject to this Agreement, taking into account the [***].

1.16 “Commercially Reasonable Justification” means, with respect to WCCI’s obligations to use Commercially Reasonable Efforts, the [***]or [***]of (a) [***] (such as a [***], or [***], by [***]) that could be [***] to [***] and [***] and/or [***]; (b) [***]; (c) [***]; (d) [***] with respect to the [***] (including, without limitation, a [***]) that is [***]; or (e) [***] with respect to [***].

1.17 “Commercialization Regulatory Approval” means, with respect to any Product, the Regulatory Approval required by Applicable Laws in the Territory to sell such Product for use in the Field in such Territory. “Commercialization Regulatory Approval” shall include, without limitation, the approval of any NDA, sNDA or other Drug Approval Application.

1.18 “Confidential Information” means (a) with respect to Paratek, all tangible embodiments of Paratek Technology, (b) with respect to WCCI, all tangible embodiments of WCCI Technology and (c) with respect to each Party, (i) all tangible embodiments of Joint Technology and (ii) with respect to a Party (the “receiving Party”), all information and Technology which are disclosed by the other Party or any of its Affiliates (the “disclosing Party”) to the receiving Party hereunder or to any of its employees, consultants, Affiliates or sublicensees, whether orally, visually, in writing or by way of any other media, that if disclosed in tangible form is marked “confidential,” or if disclosure is not in tangible form, the disclosing Party has notified the receiving Party at the time of disclosure that such disclosure is confidential and summarized such disclosure in writing, marking the summary “confidential” and submitting it to the receiving Party (or, if applicable, to such of the receiving Party’s Affiliates or sublicensees to whom disclosure has been made) within thirty (30) days of the disclosure; provided, however, that the term “Confidential Information” shall not mean or include any such Technology or information, or any portion thereof, that (A) as of the date of productions development or disclosure is known to the receiving Party, its Affiliates or sublicensees, as demonstrated by credible written documentation, other than by virtue of a prior confidential disclosure by the disclosing Party to such receiving Party or any of its Affiliates or sublicensees; (B) as of the date disclosure is in, or subsequently enters, the public domain, through no fault or omission of the receiving Party or any of its Affiliates or sublicensees; (C) is obtained from a Third Party having a lawful right to make such disclosure free from any obligation of confidentiality to the disclosing Party, or (D) is independently developed by or for the receiving Party.

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Party, its Affiliates or its sublicensees without reference to or reliance upon any Confidential Information of the disclosing Party as demonstrated by credible written documentation. For purposes of clarity, any technical or financial information of a disclosing Party disclosed at any meeting of the JSC, or disclosed through an audit report shall constitute Confidential Information of such disclosing Party.

1.19 “Contract Year” means the period beginning on the Effective Date and ending on the first anniversary thereof, and each succeeding twelve (12) month period thereafter.

1.20 “Control” or “Controlled” means (a) with respect to Technology (other than Proprietary Materials) and/or Patent Rights, the possession by a Party or any of its Affiliates of the ability to grant a license or sublicense of such Technology and/or Patent Rights as provided herein without violating the terms of any legally binding agreement between such Party or any of its Affiliates and, any Third Party, and (b) with respect to Proprietary Materials, the possession by a Party or any of its Affiliates of the ability to supply such Proprietary Materials to the other Party as provided herein without violating the terms of any legally binding agreement between such Party or any of its Affiliates and, any Third Party.

1.21 “Derived” means obtained, developed, created, synthesized, designed, derived or resulting from, based upon, containing, incorporating or otherwise generated from (whether directly or indirectly, or in whole or in part).

1.22 “Development” or “Develop” means, with respect to a Lead Candidate and/or Product, all clinical and other activities set forth in the applicable Development Plan undertaken to obtain Regulatory Approval of such Lead Candidate and/or Product in the Territory in accordance with this Agreement. When used as a verb, “Developing” means to engage in Development and “Developed” shall have a corresponding meaning.

1.23 “Development Plan” means the written plan describing the Development activities to be carried out during each Contract Year with respect to the Lead Candidates as such written plan may be amended, modified or updated. The initial Development Plan, which will describe the Development activities to be carried out during the first Contract Year is attached hereto as Exhibit A. Each amendment and/or update to the Development Plan shall be set forth in a written document prepared by, or at the direction of, the Alliance Managers and approved by the JSC, shall specifically state that it is an amendment, modification or update to the Development Plan and shall be attached to the minutes of the meeting of the JSC at which such amendment, modification or update was approved by the JSC. Without limiting the nature or frequency of any other amendments, modifications or updates of the Development Plan that may be approved by the JSC, the Development Plan shall be updated at least once prior to the end of each Contract Year to describe the Development activities to be carried out during the next Contract Year in conducting the Development pursuant to this Agreement.

1.24 “Development Timelines” means the written schedule of the Development activities to be performed and the Development milestones to be achieved, for each Lead Candidate by WCCI during each Contract Year during the Term. The initial Development Timelines applicable to the Lead Candidates until an IND is filed with respect to a Product shall

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be included as part of the initial Development Plan to be attached hereto as Exhibit A. Any amendment and/or update to the Development Timelines shall be set forth in a written document prepared by, or at the direction of, the Alliance Managers and approved by the JSC and shall be attached to the minutes of the meeting of the JSC at which such amendment, modification or update is approved by the JSC. For purposes of clarity, the term Development Timelines shall include, collectively, the Phase II Development Timelines, the NDA Development Timelines and the Launch Development Timelines.

1.25 **Drug Approval Application** means any application for Regulatory Approval required before commercial sale or use of a Product as a drug or to treat a particular indication in a regulatory jurisdiction in the Territory, including without limitation: (a) an NDA and any counterpart of an NDA in the Territory; and (b) all supplements and amendments that may be filed with respect to the foregoing.

1.26 **Effective Date** means the date set forth in the preamble of this Agreement.

1.27 **Excluded Indications** means any self-limited or other infectious conditions other than acne vulgaris and rosacea, including without limitation impetigo, uncomplicated and complicated skin and skin structure infections and other non-infectious inflammatory skin conditions.

1.28 **Executive Officers** means the Chief Executive Officer of WCCI (or an executive officer of WCCI designated by such Chief Executive Officer) and the Chief Executive Officer of Paratek (or an executive officer of Paratek designated by such Chief Executive Officer).

1.29 **External Preclinical Activity Costs** means the costs or expenditures incurred by Paratek (or for its account by an Affiliate) in connection with the engagement by Paratek or such Affiliate of any Third Party Laboratory to conduct any Development activities.

1.30 **FDA** means the United States Food and Drug Administration or any successor regulatory agency.

1.31 **FDCA** means the United States Federal Food, Drug and Cosmetic Act, as amended.

1.32 **Field** means the treatment of acne vulgaris and rosacea. For purposes of clarity, the Field shall not include any Excluded Indications.

1.33 **First Commercial Sale** means, with respect to any given Product, the date of the first commercial transfer or disposition for value to a Third Party of such Product by WCCI, an Affiliate of WCCI or a Sublicensee.

1.34 **Force Majeure** means any occurrence beyond the reasonable control of a Party that (a) prevents or substantially interferes with the performance by such Party or such Party’s Affiliates of any of its obligations hereunder, and (b) occurs by reason of any act of God, flood, fire, explosion, earthquake, strike, lockout, labor dispute, casualty or accident, or war, revolution.

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civil commotion, act of terrorism, blockage or embargo, or any injunction, law, order, proclamation, regulation, ordinance, demand or requirement of any government or of any subdivision, authority or representative of any such government.

1.35 “Full-Time Equivalent” or “FTE” means the equivalent of the work of a full-time scientist based upon a total of 1,880 hours per year of scientific work. For purposes of clarity, the portion of an FTE year devoted by a scientist to Development activities shall be determined by dividing: (a) the number of hours during any twelve-month period devoted by such employee to the Development activities by (b) 1,880.

1.36 “FTE Rate” means [***] US Dollars (US $[***]) per year, subject to increase no more than once annually by the percentage increase, if any, in the Consumer Price Index for all Urban Consumers, as published by the U.S. Department of Labor, Bureau of Statistics.

1.37 “GLP” means current good laboratory practice standards promulgated or endorsed by the FDA, including those procedures expressed or implied in the Regulatory Filings made with respect to a Product with the FDA.

1.38 “GMP” means current good manufacturing practices under Title 21 of the United States Code of Federal Regulations, as amended from time to time.

1.39 “ICH Guidelines” means the applicable guidelines of the International Conference on Harmonization of Technical Requirements for the Registration of Pharmaceuticals for Human Use.

1.40 “IND” means an Investigational New Drug Application (as defined in the FDA, and the regulations promulgated thereunder) that is required to be filed with the FDA before beginning clinical testing of a Product in human subjects, or any successor application or procedure.

1.41 “Initiation” means, with respect to any clinical trial, the first date that a human subject is dosed in such clinical trial.

1.42 “Joint Patent Rights” means Patent Rights that contain one or more claims that cover Joint Technology.

1.43 “Joint Technology” means any Program Invention that is (a) conceived or first reduced to practice jointly by or on behalf of both WCCI (or any of its Affiliates) and Paratek (or any of its Affiliates) or (b) conceived or first reduced to practice by or on behalf of one Party or any of its Affiliates as a result of its use in any material respect of the Technology of the other Party or any of its Affiliates.

1.44 “Lead Candidate” means up to ten (10) Paratek Compounds that are listed on the Lead Candidate List attached hereto as Schedule 1, as amended from time to time.

1.45 “Licensed Patent Rights” means any Paratek Patent Rights or Joint Patent Rights that (a) contain one or more claims that cover any Backup Compound, Lead Candidate or Product or (b) are necessary or useful for WCCI to exercise the licenses granted to it pursuant to Sections 7.2.1.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
1.46 “Licensed Technology” means any Paratek Technology that (a) relates to any Backup Compound, Lead Candidate or Product and (b) is necessary or useful for WCCI to exercise the licenses granted to it pursuant to Sections 7.2.1.

1.47 “NDA” means a New Drug Application, as defined in the FDCA and applicable regulations promulgated thereunder.

1.48 “Net Sales” means the gross amount billed by WCCI or its Affiliates or Sublicensees to Third Parties in the Territory for sales of each Product during the period in which royalties are payable hereunder less the following deductions from such gross amounts to the extent actually applied or taken: (a) [***]; (b) [***]; (c) [***]; (d) [***]; (e) [***]; and (f) [***]. In addition, Net Sales hereunder are subject to the following:

(a) In the case of any sale or other disposal of a Product by WCCI or any of its Affiliates to any WCCI Affiliate or Sublicensee for resale, the Net Sales shall be calculated as above on the value charged or invoiced on the first arm’s length sale to a Third Party who is not an Affiliate or Sublicensee. For purposes of clarification, amounts received by WCCI and its Affiliates for the sale of Products among WCCI and its Affiliates and Sublicensees for resale shall not be included in the computation of Net Sales hereunder.

(b) In the event of a sublicense as to any Products, Net Sales will be calculated with respect to sales of Products by the Sublicensee, except for sales by a Sublicensee to another Sublicensee for resale. For purposes of clarification, amounts received by WCCI and its Affiliates and Sublicensees for the sale of Products among WCCI and its Affiliates and Sublicensees for resale shall not be included in the computation of Net Sales hereunder.

(c) Use of Products in clinical or pre-clinical trials or other research or development activities or disposal of Products for purposes of a commercially reasonable sampling program shall not give rise to any deemed sale for purposes of this definition.

(d) In the event that a Product is sold as a component of a combination or bundled product that consists of Product together with another therapeutically active product for the same indication, then Net Sales shall be determined by multiplying the Net Sales of the combination or bundled product by the fraction A/(A+B) where A equals the average selling price of such Product sold separately in finished form and B equals the aggregate average selling price of the relevant other product(s) sold separately in finished form, in each case during the same royalty reporting period and in similar volumes. In the event that no separate sale of either Product or the relevant other product is made during the applicable royalty reporting period in similar volumes and in the relevant country in which the sale of the combination or bundled product was made, then Net Sales shall be determined by multiplying the Net Sales of the combination or bundled product by a fraction (C/(C+D)), where C equals the fair market value of Product and D equals the fair market value of the relevant other product(s), in each case determined by good faith negotiation of the Parties. If the Parties cannot agree on such fair value, then the Net Sales shall be determined by multiplying the Net Sales of the combination or bundled product by a fraction (E/(E+F)), where E equals the average selling price of such Product sold separately in finished form and F equals the aggregate average selling price of the relevant other product(s) sold separately in finished form, in each case during the same royalty reporting period and in similar volumes.

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market value, the matter will be resolved in accordance with Article 13. If the relevant other product is sold separately in finished form and Product is not, then Net Sales shall be determined by multiplying the Net Sales of the combination or bundled product by the fraction (E – B)/E, where E equals the average selling price of the combination or bundled product in the Territory.

(e) If WCCI or its Affiliates or Sublicensees effect a sale or other disposal of a Product to a customer in the Territory other than in an arm’s length transaction (except as may be otherwise set forth in clauses (a) through (d) above), the Net Sales of that Product shall be deemed to be “the fair market value” of such Product (i.e., the value that would have been derived had said Product been sold as a separate product to a similar customer in the Territory in an arm’s length transaction at the time of such transaction).

1.49 “Paratek Background Technology” means any Technology that is useful in the Field and that is Controlled by Paratek as of the Effective Date and/or during the Term, including any such Technology that is conceived or first reduced to practice during the Term by employees of, or consultants to, Paratek without the use in any material respect of any WCCI Technology, WCCI Program Technology or Joint Technology.

1.50 “Paratek Competitive Compound” means any Paratek Compound (including any Abandoned Compound) (a) that Paratek develops or commercializes itself for use in the Field and/or (b) to which Paratek grants any Third Party the right to develop or commercialize for use in the Field. For purposes of clarity, any Paratek Compound that is developed or commercialized by Paratek or any Third Party for rosacea pursuant to Section 3.7 shall not be deemed to be a Paratek Competitive Compound for purposes of this Agreement.

1.51 “Paratek Compound” means any Tetracycline Compound that is Controlled by Paratek or any of its Affiliates at any time during the Term.

1.52 “Paratek Internal Costs” means the aggregate costs incurred by Paratek in connection with its performance of (a) its tasks and obligations set forth in the Backup Compound Research Plan and/or (b) any Development activities. For purposes of clarity, Paratek Internal Costs (a) shall be determined by Paratek on an FTE basis and (b) shall not include any External Preclinical Activity Costs.

1.53 “Paratek Patent Rights” means any Patent Rights that contain one or more claims that cover Paratek Technology.

1.54 “Paratek Program Technology” means any Program Invention conceived or first reduced to practice by employees, contractors or consultants of Paratek or any of its Affiliates, alone or jointly with Third Parties, without the use in any material respect of any WCCI Technology or Joint Technology.

1.55 “Paratek Technology” means, collectively, Paratek Background Technology and Paratek Program Technology.

1.56 “Paratek Total Cost” means the sum of the External Preclinical Activity Costs and the Paratek Internal Costs.

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1.57 “Party” means Paratek or WCCI.

1.58 “Patent Rights” means the rights and interests in and to issued patents and pending patent applications (which for purposes of this Agreement shall be deemed to include certificates of invention, applications for certificates of invention and priority rights) in the Territory, including all provisional applications, substitutions, continuations, continuations-in-part, divisions, and renewals, all letters patent granted thereon, and all reissues, reexaminations and extensions thereof.

1.59 “Phase I Clinical Trial” means a human clinical trial in any country which provides for the introduction into humans of a Lead Candidate or Product with the purpose of determining human toxicity, metabolism, absorption, elimination and other pharmacological action as more fully defined in 21 C.F.R. 312.21(a).

1.60 “Phase II Clinical Trial” means a human clinical trial in any country that is intended to initially evaluate the effectiveness of a Lead Candidate or Product for a particular indication or indications in patients with the disease or indication under study, as more fully defined in 21 C.F.R. 312.21(b), and to establish an appropriate dose for use in a Phase III Clinical Trial.

1.61 “Phase III Clinical Trial” means a pivotal human clinical trial in the Territory the results of which could be used to establish safety and efficacy of a Lead Candidate or Product as a basis for an NDA submitted to an applicable Regulatory Authority, as more fully defined in 21 C.F.R. 312.21(c).

1.62 “Product” means any pharmaceutical composition, compound or product that consists of, incorporates, is comprised of, or is otherwise Derived from, a Lead Candidate for use in the Field, including different salts, formulations, combinations, other presentations or Pharmaceutical Alternatives (as defined in the 22nd edition of Approved Drug Products with Therapeutic Equivalence Evaluations issued by the United States Department of Health and Human Services). For purposes of clarity, the term “Derived from” for purposes of this definition shall not refer to any compound that (a) is generated from any Tetracycline Compound that is not a Lead Candidate; (b) is being developed for any use outside of the Field; and/or (c) constitutes a new compound with a different chemical structure.

1.63 “Product Trademark” means any trademark and trade name, whether or not registered, and any trademark application, renewal, extension or modification thereto used for Products in the Territory, together with all goodwill associated therewith.

1.64 “Program Invention” means any Technology (including, without limitation, any new and useful process, method of manufacture or composition of matter) that is conceived or first reduced to practice (actively or constructively) in the conduct of the Backup Compound Research Program or in connection with the Development of any Lead Candidate or Product.

1.65 “Proprietary Materials” means any tangible chemical, biological or physical research materials (including, without limitation, molecules, compounds and other chemical

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compositions) that are furnished by or on behalf of one Party or any of such Party’s Affiliates to the other Party or any of such other Party’s Affiliates in connection with this Agreement, regardless of whether such materials are specifically designated as proprietary by the transferring Party.

1.66 “Regulatory Approval” means any approval, product and establishment license, registration or authorization of any Regulatory Authority necessary for the manufacture, use, importation, export, reimbursement, marketing, promotion and sale by WCCI of a Product in the Territory. “Regulatory Approval” shall include, without limitation, approval of any NDA or any other Drug Approval Application.

1.67 “Regulatory Authority” means the FDA or any counterpart of the FDA outside the United States, or other national, supra-national, regional, state or local regulatory agency, department, bureau, commission, council or other governmental entity in the Territory with authority over the distribution, importation, exportation, manufacture, production, use, storage, transport, reimbursement, or clinical testing and/or sale of a Product.

1.68 “Regulatory Filings” means, collectively, any and all INDs, establishment license applications and drug master files, Drug Approval Applications, applications for designation of a Product as an “Orphan Product(s)” under the Orphan Drug Act or any other similar filings (including any comparable foreign filings), and all data contained therein, as may be required by any Regulatory Authority for the Development, manufacture or Commercialization of a Product.

1.69 “Sublicensee” means any Third Party to which WCCI, any WCCI Affiliate or any other Third Party grants a sublicense of some or all of the rights granted to WCCI under Section 7.2.1 hereof in accordance with Section 7.2.2 hereof.

1.70 “Technology” means and includes all inventions, discoveries, improvements, trade secrets, works of authorship, and proprietary methods and materials (including, without limitation, Proprietary Materials), whether or not patentable or otherwise protectable under copyright, trade secrecy of similar laws, including but not limited to (a) samples of, methods of production or use of, and structural and functional information pertaining to, chemical compounds, proteins or other biological substances and (b) data, designs, formulations, techniques and know-how (including any negative results).

1.71 “Territory” means the United States and its territories and possessions.

1.72 “Tetracycline Compound” means a [***] or [***] that consists of, incorporates, is comprised of, or is otherwise derived from any [***] (such as, but not limited to, [***] and [***]), including (a) [***]; (b) [***] in which one or several [***] have been replaced by [***]; (c) [***] in which one or several [***] have been chemically opened and/or removed producing [***]; and (d) [***] or [***] of such [***]. For purposes of this definition, a [***] or

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shall be deemed to be derived from a [***] if (i) the person deriving such [***] or [***] has actual knowledge that such [***] or [***] has been derived from a [***] or (ii) an analysis of the [***] of such [***] or [***] by any person that is reasonably skilled in the art would lead such person to conclude that such [***], [***] or [***] has been derived from a [***] or [***] or [***] ([***] to [***]).

1.73 “Third Party” means any person or entity other than WCCI and Paratek and their respective Affiliates.

1.74 “Third Party Laboratory” means any Third Party contract research organization and/or laboratory engaged by a Party to provide Development activities.

1.75 “Tufts IP Infringement” means an Infringement of Patent Rights in the Field of Use as the terms “Patent Rights” and “Field of Use” are defined in the Tufts License Agreement.

1.76 “Tufts License Agreement” means the license agreement dated as of February 7, 1997, as amended, by and between Paratek and the Trustees of Tufts, a copy of which is attached hereto as Exhibit B, as the same may be amended from time to time in accordance with the provisions of Section 7.4.

1.77 “Valid Claim” means a claim in an issued, unexpired patent within the Paratek Patent Rights or Joint Patent Rights that (a) has not been finally cancelled, withdrawn, abandoned or rejected by any administrative agency or other body of competent jurisdiction, (b) has not been revoked, held invalid, or declared unpatentable or unenforceable in a decision of a court or other body of competent jurisdiction that is unappealable or unappealed within the time allowed for appeal, (c) has not been rendered unenforceable through disclaimer or otherwise, and (d) is not lost through an interference proceeding.

1.78 “WCCI Background Technology” means any Technology that is useful in the Field and that is Controlled by WCCI as of the Effective Date and/or during the Term, including any such Technology that is conceived or first reduced to practice during the Term by employees of, or consultants to, WCCI without the use in any material respect of any Paratek Technology, Licensed Technology or Joint Technology.

1.79 “WCCI Patent Rights” means any Patent Rights that contain one or more claims that cover WCCI Technology.

1.80 “WCCI Program Technology” means (a) any Program Invention conceived or first reduced to practice by employees, contractors or consultants of WCCI or any of its Affiliates, alone or jointly with Third Parties, without the use in any material respect of any Paratek Technology or Joint Technology and (b) any Clinical Trial Data.

1.81 “WCCI Technology,” means, collectively, WCCI Background Technology and WCCI Program Technology.

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### Additional Definitions

In addition, each of the following definitions shall have the respective meanings set forth in the section of this Agreement indicated below:

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### ARTICLE 2: GOVERNANCE

2.1 **Establishment and Function of JSC.** Paratek and WCCI shall establish a Joint Steering Committee (the “JSC”) to plan, administer and monitor the Backup Compound Research Program and the Development. The JSC shall approve all Backup Compound Research

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Plans and Development Plans, review and monitor the progress of the Backup Compound Research Program and the Development, and recommend necessary adjustments to the Backup Compound Research Program and the Development as the research and/or Development activities thereunder take place.

2.2 Composition; Responsibilities. The JSC will be comprised of three (3) representatives of Paratek and three (3) representatives of WCCI and will continue in effect throughout the Term. Each Party will designate its JSC representatives within thirty (30) days of the Effective Date and shall have the right to replace any of its JSC representatives from time to time by giving prior notice of such replacement to the other Party. The JSC will be chaired by one of the WCCI designated representatives during the Term (the “Chair”). During the period commencing on the Effective Date and continuing until the payment by WCCI of the milestone payment associated with the filing of an IND with respect to a Product pursuant to Section 5.3.1 (the “IND Milestone Date”), the JSC will (a) meet at least four (4) times per Calendar Year and (b) be responsible for (i) reviewing the efforts of the Parties in the conduct of the Backup Compound Research Program, if any, and the Development activities, (ii) reviewing and approving the Backup Compound Research Plans, if any, the Development Plan and/or any amendments, modifications and updates to any such Backup Compound Research Plan and Development Plan, (iii) addressing such other matters as either Party may bring before the JSC, (iv) determining the Development Timelines applicable to the Development of any Lead Candidate during the period from (A) the IND Milestone Date with respect to such Lead Candidate or Product to the completion of Phase II Clinical Trials with respect to such Lead Candidate or Product (the “Phase II Development Timelines”), (B) the Initiation of Phase III Clinical Trials with respect to such Lead Candidate or Product to the filing of an NDA with respect to such Lead Candidate or Product (the “NDA Development Timelines”) and (C) the filing of an NDA with respect to such Lead Candidate or Product to the First Commercial Sale of a Product Derived from such Lead Candidate or Product (the “Launch Development Timelines”) and (v) performing such other tasks and undertaking such other responsibilities as may be set forth in this Agreement, including, without limitation, the responsibilities set forth in Article 3 hereof. The JSC shall determine the Phase II Development Timelines, the NDA Development Timelines and the Launch Development Timelines promptly upon the substantial completion of the material Development activity specified in the immediately preceding Development Timeline. Following the IND Milestone Date (a) at Paratek’s request, which shall not be made more frequently than twice per Calendar Year, the JSC will meet for the sole purpose of serving as a forum for WCCI to update Paratek as to clinical Development and Commercialization progress with respect to Lead Candidates and Products, (b) each Party may continue to exercise its right under this Section 2.2 to replace its JSC representatives from time to time by giving prior notice of such replacement to the other Party and (c) each Party may continue to exercise its right under Section 2.3.2 hereof to have representatives of such Party or of its Affiliates who are not members of the JSC attend JSC meetings as observers at the invitation of such Party with the approval of the other Party, which shall not be unreasonably withheld. At each such meeting of the JSC after the IND Milestone Date, the representatives of WCCI on the JSC shall provide an update to the JSC as to WCCI’s general strategy for the Development and Commercialization of each Product in the Field, including, without limitation, to the extent applicable, (i) an update to each Development Plan concerning the applicable Development Timelines for the Development of each Lead Candidate and Product and Regulatory Filings with respect thereto in
the Field in the Territory, (ii) an update concerning the anticipated timelines on a region-by-region basis for the commercial launch of each Product and (iii) sales forecast guidance for each Product in the Field in the Territory. If there is a material change in such timelines or guidance after any such meeting, WCCI will promptly notify Paratek thereof.

2.3 Meetings.

2.3.1 Schedule of Meetings. Within sixty (60) days of the Effective Date, the JSC shall meet and shall establish a schedule of times for meetings, taking into account, without limitation, the planning needs of the Development and the obligations of the JSC to consult and/or render decisions on matters before it. Meetings shall also be convened upon the determination of any JSC representative, by written notice thereof to the remaining representatives of the JSC, that a meeting of the JSC is required to discuss and/or resolve any matter or matters with respect to the Backup Compound Research Program and/or the Development. In any event, prior to the IND Milestone Date, any Paratek representative to the JSC may call a meeting of the JSC not more than once each Calendar Quarter and after the IND Milestone Date, may call a meeting not more than twice per Calendar Year. Meetings shall be held at the offices of WCCI or another mutually agreed upon location; provided, however, that the Parties may mutually agree to meet by teleconference or video conference or may act by a written memorandum signed by each JSC representative or its designee.

2.3.2 Quorum; Voting; Decisions. At each JSC meeting, at least two (2) members designated by each Party shall constitute a quorum. Each JSC member shall have one vote on all matters before the JSC; provided, that, the member or members of each Party present at a JSC meeting shall have the authority to cast the votes of any of such Party’s members on the JSC who are absent from the meeting. Except as otherwise provided in Section 2.4 hereof, all decisions of the JSC shall be made by majority vote of the members. Whenever any action by the JSC is called for hereunder during a time period in which the JSC is not scheduled to meet, the Chair shall cause the JSC to take the action in the requested time period by calling a special meeting or by action without a formal meeting by written memorandum signed by the Chair and one of the other Party’s members. Representatives of each Party or of its Affiliates who are not members of the JSC may attend JSC meetings as non-voting observers at the invitation of either Party with the approval of the other Party, which shall not be unreasonably withheld.

2.3.3 Minutes. The JSC shall keep accurate minutes of its deliberations, which record all proposed decisions and all actions recommended or taken. Drafts of the minutes shall be delivered to the members of the JSC within a reasonable time not to exceed ten (10) days after the meeting. The Chair shall be responsible for the preparation and circulation of the draft minutes. Draft minutes shall be edited by the Chair and shall be issued in final form within a reasonable time not to exceed twenty (20) days after the meeting only with the approval of both Alliance Managers, as evidenced by their signatures on the minutes.

2.3.4 Expenses. Paratek and WCCI shall each bear all expenses of their respective JSC members related to their participation on the JSC and attendance at JSC meetings.

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2.4 **JSC Decisions.** The JSC members shall use reasonable efforts to reach agreement on any and all matters. In the event that, despite such reasonable efforts, agreement on a particular matter cannot be reached by the JSC, then, subject to the remainder of this Section 2.4, the Chair of the JSC shall have the right to make the final decision on such matter, but shall only exercise such right in good faith after full consideration of the positions of both Parties. Notwithstanding the foregoing, the unanimous approval of all JSC members shall be required for any of the following matters: (a) any change to the Development Plan or any Backup Compound Research Plan that would require Paratek to incur material additional costs and expenses to perform research or hire additional personnel or develop capabilities that Paratek does not have at such time; (b) the adoption of, or change to, any patent strategy with respect to Joint Technology; (c) the determination of the Phase II Development Timelines, NDA Development Timelines and the Launch Development Timelines and (d) any change to any such Development Timelines that would result in such Development Timeline being delayed in excess of six (6) months. If the JSC fails to reach unanimous agreement on any of the matters set forth above in the foregoing sentence, then the matter shall be referred by any member thereof to the Executive Officers for resolution by good faith negotiations within thirty (30) days after notice thereof is received.

**ARTICLE 3: DEVELOPMENT; BACKUP COMPOUND RESEARCH PROGRAM**

3.1 **Development.** Each Party shall be primarily responsible for those tasks and obligations in connection with the Development that are assigned to it pursuant to this Article 3 and the Development Plan. The initial Development Plan shall be attached hereto as Exhibit A.

3.2 **Management of Development.** Paratek and WCCI will each appoint an Alliance Manager on the Effective Date. Each Party will have the right, upon written notice to the other Party, to designate a different Alliance Manager. The Alliance Managers will be members of the JSC, will jointly oversee the conduct of the Development until the later of the IND Milestone Date and the expiration of the Backup Compound Research Program Term. Following such date, the Alliance Managers will continue to meet either in person or telephonically for the purpose of serving as a forum for WCCI to update Paratek as to Development and Commercialization progress with respect to Lead Candidates and/or Products. In connection therewith, WCCI shall provide the Paratek Alliance Manager with the updates described in Section 3.3.2; provided, that, in providing each such update, WCCI shall be entitled to omit discussion of Confidential Information of WCCI that WCCI reasonably determines to be materially sensitive. If there is a material change in such timelines or guidance in between such updates, WCCI will endeavor to notify Paratek thereof through the Alliance Managers. The role and responsibilities of the Paratek Alliance Manager and the WCCI Alliance Manager shall terminate on the later of the termination of the Term and the date on which no Lead Candidate or Product is being Developed.

3.3 **Records; Reports.**

3.3.1 **Record Keeping.** Paratek and WCCI shall each maintain records in sufficient detail and in accordance with GLP and as will properly reflect all work performed and results achieved in the performance of their respective activities in connection with the

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Development of Lead Candidates and the conduct of the Backup Compound Research Program (including all data in the form required under any applicable governmental regulations) in a manner appropriate for purposes of supporting the filing of potential patent applications. Paratek and WCCI shall each provide the other the right to inspect and copy such records to the extent reasonably required for the exercise of its rights or the performance of its obligations under this Agreement; provided, that, such records shall be Confidential Information of the disclosing Party and subject to Article 6 hereof.

3.3.2 Development Updates. WCCI shall keep the Paratek Alliance Manager regularly informed of the progress of the conduct of Development activities under this Agreement. Without limiting the generality of the foregoing, WCCI shall, at least once per Calendar Quarter (a) provide updates to the Paratek Alliance Manager in reasonable detail regarding the status of the conduct of all Development activities and shall present to the Paratek Alliance Manager all data and results generated in connection with such activities, and (b) provide the Paratek Alliance Manager with such additional information regarding the conduct of such Development activities that it has in its possession as may be reasonably requested from time to time by the Paratek Alliance Manager.

3.4 Information Exchange. Scientists at Paratek and WCCI shall cooperate in the performance of the Development and, subject to any confidentiality obligations to Third Parties, shall exchange information and materials as necessary to carry out the Development. The Parties expect that such exchange of information and materials may involve short-term on-site visits by scientists of one Party to the facilities of the other Party.

3.5 Paratek Development Activities. If WCCI wishes Paratek to conduct research as part of the Backup Compound Research Program or any Paratek Development activities as part of the Development, other than the research or Development activities specified in the Development Plan, it shall provide Paratek with written notice, which notice shall describe in reasonable detail the research or Development activities it wishes Paratek to conduct and the estimated budget and timeframe applicable thereto. Upon receipt of such notice, Paratek will determine in good faith whether it has the resources available, and whether in its sole discretion it wishes, to conduct the Backup Compound Research Program and/or the Development activities. To the extent Paratek agrees to conduct the Backup Compound Research Program and/or the Development activities, it shall provide WCCI with written notice of same, which notice shall include an estimate of the Paratek Total Cost applicable thereto and the Alliance Managers will prepare and execute a Backup Compound Research Plan and/or an amendment to the Development Plan to reflect the research or Development activities, as the case may be, and such estimated Paratek Total Cost applicable thereto. All such research and/or Development activities will be conducted at WCCI’s sole cost and expense.

3.6 Abandoned Compounds; Additional Compounds

3.6.1 Abandoned Compounds. If, at any time and from time to time during the Term, the JSC determines in good faith that further Development and/or Commercialization, as the case may be, of any Backup Compound, Lead Candidate or Product in accordance with the provisions of this Agreement has ceased to be scientifically, technically or commercially viable,

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it will promptly provide written notice thereof to Paratek (each, an "Abandoned Compound"). Following an Abandoned Compound designation or at any time a Lead Candidate or Product otherwise becomes an Abandoned Compound pursuant to any of the other provisions of this Agreement (a) Paratek or any of its Affiliates may thereafter proceed with development and commercialization of such Abandoned Compound for any and all uses outside of the Field, either alone or in conjunction with Third Parties; (b) all licenses granted by Paratek to WCCI with respect to such Abandoned Compound shall immediately terminate; provided, that, any, abandonment by WCCI pursuant to this Section 3.6.1 shall not constitute a breach of this Agreement; and (c) WCCI may, in its discretion, designate a Backup Compound to replace such Lead Candidate (which shall be reflected in an amendment to Schedule 1 hereto) in the Development, whereupon the JSC shall promptly direct the Alliance Managers to prepare an amendment to the Development Plan to describe the activities to be conducted, and the applicable Development Timelines, with respect to such Lead Candidates.

3.6.2 Additional Compounds. If, at any time during the Term, Paratek reasonably determines in good faith that a Paratek Compound is potentially more suitable for Development and Commercialization than the then specified Lead Candidates (such compound, an "Additional Compound"), Paratek shall promptly inform WCCI (the "Additional Compound Notification") of such determination and WCCI shall have the right to designate such Additional Compound as a Lead Candidate hereunder (which shall be reflected in an amendment to Schedule 1 hereto), it being understood that WCCI must notify Paratek in writing of such designation within forty-five (45) days of receipt of the Additional Compound Notification in order to exercise its rights under this Section 3.6.2. For the avoidance of doubt, Paratek shall have no obligation under this Section 3.6.2 to engage in research activities it would not otherwise conduct in the ordinary course of its research and development with respect to Paratek Compounds.

3.7 Rosacea Development Option. If at any time during the period commencing on the Effective Date and continuing until the Initiation of a Phase III Clinical Trial with respect to a Product, WCCI determines in good faith that it intends to use Commercially Reasonable Efforts to Develop one or more Lead Candidates for rosacea, WCCI shall give written notice to the JSC specifying such Lead Candidate (the "Rosacea Option Notice"). On or before ninety (90) days from the date of receipt of the Rosacea Option Notice, WCCI shall prepare, for approval by the JSC pursuant to Section 2.2, a Development Plan covering the Development of such Lead Candidate for rosacea. Notwithstanding the foregoing, if WCCI fails to provide the Rosacea Option Notice within the period described in this Section 3.7 or the JSC fails to approve a Development Plan for such Lead Candidate for rosacea in accordance with Section 2.2, the grant to WCCI of the right to Develop and Commercialize Products for rosacea under this Agreement shall convert to a non-exclusive right and Paratek shall thereafter have the unencumbered right to grant one or more Third Parties the non-exclusive right to develop and commercialize any Paratek Compound that is not a Backup Compound, Lead Candidate or Product for rosacea.

3.8 Exclusive Periods.

3.8.1 Development of Lead Candidates. During the period commencing on the Effective Date and continuing for so long as WCCI is Developing at least one Lead Candidate in

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accordance with its obligations under Section 3.9.2, (i) Paratek and its Affiliates shall not grant any rights (whether by license or otherwise) to any Third Party to any Backup Compound or Lead Candidate in the Territory that has not become an Abandoned Compound, and (ii) Paratek and its Affiliates shall not research, develop or commercialize any Backup Compound or Lead Candidate in the Territory that has not become an Abandoned Compound in collaboration with, or for the benefit (in whole or in part) of any Third Party (other than pursuant to non-commercial collaborations in accordance with Section 7.1.3 hereof).

3.8.2 Commercialization of Products. During the period commencing on the Effective Date and continuing for so long as WCCI is Commercializing a Product in accordance with its obligations under Section 3.9.2, (i) Paratek and its Affiliates shall not grant any rights (whether by license or otherwise) to any Third Party to such Product in the Territory (including, without limitation, any rights to the Lead Candidate from which such Product is Derived) and (ii) Paratek and its Affiliates shall not research, develop or commercialize such Product in the Territory (including, without limitation, any rights to the Lead Candidate from which such Product is Derived) in collaboration with, at the request of, or for the benefit (in whole or in part) of any Third Party.

3.9 Due Diligence

3.9.1 Paratek Obligations. Paratek agrees that it will (a) undertake the responsibilities assigned to it, as set forth in this Article 3 and in the Development Plan and any Backup Compound Research Plan, if any; including, but not limited to, the dedication of resources to such efforts as set forth in the Development Plan and such Backup Compound Research Plan; and (b) use Commercially Reasonable Efforts to perform the activities assigned to Paratek in this Article 3 and in the Development Plan and such Backup Compound Research Plan, in a professional and timely manner (collectively, the “Paratek Diligence Obligation”). Paratek may satisfy its obligations under this Section 3.9.1 either itself or through Paratek Affiliates and/or Third Party Laboratories.

3.9.2 WCCI Obligations. WCCI agrees that it will (a) use Commercially Reasonable Efforts to undertake those responsibilities assigned to it, as set forth in this Article 3 and in the Development Plan in a professional and timely manner; (b) use Commercially Reasonable Efforts to Develop Lead Candidates for Commercialization as a Product in the Field in the Territory in accordance with the Development Timelines; and (c) use Commercially Reasonable Efforts to Develop and Commercialize at least one Product in the Field in the Territory. WCCI may satisfy its obligations under this Section 3.9.2 either itself or through WCCI Affiliates, Sublicensees and/or contract research organizations. For the avoidance of doubt, WCCI shall be deemed to have satisfied its obligations under this Section 3.9.2 if it uses Commercially Reasonable Efforts to Develop and Commercialize a Product solely with respect to an acne indication until such time as the JSC approves a Development Plan with respect to rosacea in accordance with Section 3.7.

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3.9.3 **Breach of WCCI Diligence Obligation.**

(a) Paratek may provide WCCI with written notice of any material breach by WCCI of its covenants set forth in Section 3.9.2 hereof that is not caused by Paratek’s failure to meet a Paratek Diligence Obligation pursuant to Section 3.9.1 above (a “WCCI Diligence Failure”), at any time Paratek reasonably believes a WCCI Diligence Failure has taken place. Such written notice (a “Diligence Failure Notice”) shall set forth in reasonable detail the nature of the alleged failure and shall request written justification, in the form of detailed reasons, that would support the proposition that WCCI is meeting such diligence obligations. In such event, WCCI shall provide such written justification to Paratek within thirty (30) days after such Diligence Failure Notice is given and shall identify any Commercially Reasonable Justification applicable thereto. If Paratek does not receive a Commercially Reasonable Justification from WCCI within such thirty (30) day period or if Paratek and WCCI are not able to resolve any disagreement with respect to a WCCI Diligence Failure within sixty (60) days after WCCI’s receipt of the Diligence Failure Notice, then either Paratek or WCCI, acting alone, may at any time following WCCI’s receipt of such Diligence Failure Notice by delivery to the other Party of a written notice indicating such Party’s election to have the disagreement resolved by arbitration, cause the matter to be submitted to binding arbitration under Section 13.1.2 hereof; provided that (i) the arbitrators shall be entitled to review and resolve only whether or not a WCCI Diligence Failure occurred during the applicable reporting period of time that is the subject of such disagreement, and (ii) the arbitrators shall be individuals who are knowledgeable in the field of the development, manufacture, and sale of drugs and drug products, and shall have no current or prior business relationships with Paratek, WCCI or any of their respective Affiliates.

(b) If the arbitrator determines that a WCCI Diligence Failure occurred, then Paratek’s sole and exclusive remedy shall be, on a Product-by-Product basis as to the Product with respect to which such WCCI Diligence Failure occurred to (i) terminate any or all of the licenses and rights granted under Section 7.2.1 hereof and the restrictions of Sections 3.8 and 7.1.1, or (ii) convert the licenses and rights granted under any or all of Section 7.2.1 from exclusive licenses to non-exclusive licenses and terminate the restrictions of Sections 3.8 and 7.1.1, in either case only as such licenses and rights apply to such Product, which termination and/or conversion, as the case may be, shall be at the discretion of Paratek and be effective sixty (60) days after Paratek gives written notice to WCCI specifying the remedy that Paratek is electing to exercise under this Section 3.9.3.

(c) The Parties agree that Paratek’s sole and exclusive remedy, with respect to a WCCI Diligence Failure shall be as set forth in this Section 3.9.3, and Paratek shall not bring, commence, continue or prosecute any claim, legal action or proceeding under, in relation to, arising out of or in connection with a WCCI Diligence Failure except as set forth in this Section 3.9.3.

3.10 **Compliance with Laws.** Each Party agrees to carry out all work assigned to such Party in the Backup Compound Research Plan and the Development Plan as well as all Development and Commercialization obligations hereunder in compliance with all Applicable Laws. For the avoidance of doubt, each activity performed by a Party under the Development Plan or Backup Compound Research Plan that will or would reasonably be expected to be submitted to a Regulatory Authority in support of a Regulatory Filing or Drug Approval

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3.11 Supply of Proprietary Materials. From time to time during the Term, either Party (the “Transferring Party”) may supply the other Party (the “Recipient Party”) with Proprietary Materials of the Transferring Party for use in the Development and/or the Backup Compound Research Program. In connection therewith, the Recipient Party hereby agrees that (a) it and its Affiliates shall not use such Proprietary Materials for any purpose other than exercising any rights granted to it or reserved by it hereunder or for performing its obligations hereunder; (b) it and its Affiliates shall use such Proprietary Materials only in compliance with all Applicable Law; (c) it and its Affiliates shall not transfer any such Proprietary Materials to any Third Party without the prior written consent of the Transferring Party, except as expressly permitted hereby and except in connection with the exercise of any rights granted to the Recipient Party or reserved by it hereunder; (d) as between the Transferring Party and the Receiving Party, the Transferring Party shall retain full ownership of all such Proprietary Materials, subject to any licenses granted by the Transferring Party to the Recipient Party pursuant to this Agreement; and (e) upon the expiration or termination of this Agreement, the Recipient Party shall, at the instruction of the Transferring Party, either destroy or return any such Proprietary Materials which are not the subject of the grant of a continuing license hereunder. In addition, each of Paratek and WCCI agrees that, during the Term, neither Party nor any of their respective Affiliates shall transfer to any Third Party, without the approval of the other Party, any Proprietary Materials that constitute or are part of Joint Technology.

ARTICLE 4: COMMERCIALIZATION OF PRODUCTS

4.1 Commercialization of Products. Subject to the remainder of this Article 4, WCCI shall have the sole right and responsibility for all aspects of Commercializing Products in the Territory.

4.2 Compliance. WCCI shall perform its obligations described in Section 4.1 in good scientific manner and in compliance with all Applicable Laws.

4.3 Information; Updates. WCCI shall keep Paratek regularly informed of the progress of its efforts to Commercialize Products in the Field in the Territory, by providing periodic updates which shall summarize WCCI’s efforts to Commercialize Lead Candidates and Products in the Field and identify the Regulatory Filings and Drug Approval Applications with respect to such Lead Candidates and Products that WCCI or any of its Affiliates or Sublicensees have filed; provided, that, in providing each such update, WCCI shall be entitled to omit discussion of Confidential Information of WCCI that WCCI reasonably determines to be materially sensitive.

4.4 Product Recalls. In the event that any Regulatory Authority issues or requests a recall or takes similar action in connection with a Product, or in the event WCCI reasonably believes that an event, incident or circumstance has occurred that may result in the need for a recall, market withdrawal or other corrective action regarding a Product, WCCI shall promptly

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advise Paratek thereof by telephone or facsimile. Following such notification, WCCI shall decide and have control of whether to conduct a recall or market withdrawal (except in the event of a recall or market withdrawal mandated by a Regulatory Authority, in which case it shall be required) or to take other corrective action in the Territory and the manner in which any such recall, market withdrawal or corrective action shall be conducted; provided, that, WCCI shall keep Paratek regularly informed regarding any such recall, market withdrawal of corrective action. WCCI shall bear all expenses of any such recall, market withdrawal or corrective action (including, without limitation, expenses for notification, destruction and return of the affected Product and any refund to customers of amounts paid for such Product).

4.5 **Adverse Event Information.** WCCI shall provide notice to Paratek of any Adverse Events that occur during the Term, including without limitation, all filings made with Regulatory Authorities with respect to Adverse Events promptly after making such filings. WCCI shall make available to Paratek for review and copy at Paratek’s expense, upon reasonable request, all Adverse Event information and product complaint information relating to Lead Candidates and Products as compiled, prepared and filed by WCCI with the FDA or similar Regulatory Authorities in the normal course of business in connection with the Development, Commercialization or sale of any Lead Candidates or Products. Paratek acknowledges and agrees that such information shall be the Confidential Information of WCCI and subject to the provisions of Article 6 hereof.

4.6 **Manufacture of Products for Commercial Sale.** Unless otherwise agreed to by the Parties, WCCI shall have the sole obligation and responsibility for the manufacture of all Products (including without limitation the active pharmaceutical ingredient in any Product) for commercial sale.

**ARTICLE 5: CONSIDERATION AND FUNDING**

5.1 **Upfront Fee.** As reimbursement for research conducted by Paratek, WCCI hereby agrees to pay Paratek a non-refundable, non-creditable fee in the amount of Four Million U.S. Dollars (US $4,000,000) payable in immediately available funds on the Effective Date.

5.2 **R&D Reimbursement.** In consideration of the conduct by Paratek of (a) any activities under the Backup Compound Research Program agreed to by Paratek and/or (b) any Development activities under the Development agreed to by Paratek, WCCI shall reimburse Paratek for one hundred percent (100%) of the Paratek Total Cost incurred by Paratek as part of such activities. Paratek shall invoice WCCI on a quarterly basis with respect to such Paratek Total Cost within fifteen (15) days of end of each Calendar Quarter and WCCI shall pay all such invoices within thirty (30) days of receipt of each such invoice.

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5.3 Development Milestone Payments.

5.3.1 Milestones. In further consideration of the grant of the rights and licenses by Paratek hereunder, WCCI will make the following nonrefundable, non-creditable (other than as provided in this Section 5.3.1) milestone payments to Paratek within [***] ([***]) after the achievement by WCCI and/or WCCI’s Affiliates and Sublicensees of each such milestone event for each Product:

<table>
<thead>
<tr>
<th>Milestone Event</th>
<th>Milestone Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filing of IND with respect to a Product</td>
<td>$1 million</td>
</tr>
<tr>
<td>Initiation of Phase II Clinical Trials with respect to a Product</td>
<td>$2.5 million</td>
</tr>
<tr>
<td>Initiation of Phase III Clinical Trials with respect to a product</td>
<td>$4 million</td>
</tr>
<tr>
<td>Acceptance of NDA in the Territory for a Product</td>
<td>$5 million</td>
</tr>
<tr>
<td>[***]</td>
<td>[***]</td>
</tr>
</tbody>
</table>

For the avoidance of doubt, WCCI shall only be obligated to make each milestone payment set forth in this Section 5.3.1 upon the first occurrence of the milestone event relating to such payment for a given Product and shall have no obligation to make any milestone payment as a result of any subsequent filing, clinical trial initiation, NDA filing or Regulatory Approval with respect to an alteration of the dosage, formulation or any other variation of such Product, so long as such Product continues to be Derived from the same Lead Candidate. In addition, if the JSC determines to discontinue Development of a Product (the “Discontinued Product”), then WCCI shall be entitled to deduct the amount of all milestone payments made with respect to the Discontinued Product from any milestone payments that become due hereunder with respect to the next Product that is Developed by WCCI that achieves the applicable milestones.

5.3.2 Determination That Payments Are Due. WCCI shall provide Paratek with prompt written notice upon its achievement of each of the milestones set forth in Section 5.3.1 of this Agreement. In the event that, notwithstanding the fact that WCCI has not given any such notice, Paratek believes any such milestone payment is due, it shall so notify WCCI in writing, and shall provide to WCCI the data and information demonstrating that the conditions for payment have been achieved. Within thirty (30) days of its receipt of such notice, WCCI shall review the data and information and shall certify in writing whether or not the conditions for payment have been achieved. Any dispute under this Section 5.3.2 that relates to whether or not a milestone has been achieved shall be submitted to arbitration under Article 13 of this Agreement.

5.4 Payments. All payments made by WCCI to Paratek hereunder shall be made by wire transfer to the account specified below, or such other account as specified in writing by Paratek from time to time:

- Bank Name: [***]
- Bank Address: Boston, MA
- Account Name: Paratek Pharmaceuticals, Inc.
- Account Number: [***]

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
ARTICLE 6: TREATMENT OF CONFIDENTIAL INFORMATION; PUBLICITY; NON-SOLICITATION

6.1 Confidentiality

6.1.1 Confidentiality Obligations. Paratek and WCCI each recognize that the other Party’s Confidential Information constitute highly valuable and proprietary confidential information and materials. Paratek and WCCI each agrees that during the Term and for an additional five (5) years thereafter, it will keep confidential, and will cause its employees, consultants, Affiliates and Sublicensees to keep confidential, all Confidential Information of the other Party, and to limit the use of the Confidential Information of the other Party to those purposes permitted under this Agreement. Each receiving Party shall take such action, and shall cause its Affiliates and Sublicensees to take such action, to preserve the confidentiality of the disclosing Party’s Confidential Information as it would customarily take to preserve the confidentiality of its own Confidential Information, using a level of care that shall not under any circumstances be less than reasonable care. Each receiving Party, upon the request of the disclosing Party, will return all the Confidential Information and Proprietary Materials disclosed or transferred to it by the disclosing Party pursuant to this Agreement, including all copies and extracts of documents and all manifestations in whatever form, within sixty (60) days of such request or, if earlier, the termination or expiration of this Agreement; provided, however, that the receiving Party may retain Confidential Information of the disclosing Party relating to any license which survives such termination and one copy of all other Confidential Information may be retained in inactive archives solely for the purpose of establishing the contents thereof.

6.1.2 Limited Disclosure. Paratek and WCCI each agree that any disclosure of the disclosing Party’s Confidential Information to any officer, employee, consultant, agent, Affiliate or sublicensee of a receiving Party, as the case may be, shall be made only if and to the extent necessary to carry out its rights and responsibilities under this Agreement, shall be limited to the maximum extent possible consistent with such rights and responsibilities and shall only be made to persons who are bound by written confidentiality obligations (including such provision as contained in employment agreements) to maintain the confidentiality thereof and not to use such Confidential Information except as expressly permitted by this Agreement. Paratek and WCCI each further agree not to disclose or transfer the disclosing Party’s Confidential Information to any Third Party under any circumstance without the prior written approval from the disclosing Party, except as otherwise expressly permitted by this Agreement. Paratek and WCCI each further agree not to disclose or transfer the disclosing Party’s Confidential Information to any Third Party under any circumstance without the prior written approval from the disclosing Party, except as otherwise expressly permitted by this Agreement. Notwithstanding, the foregoing, each receiving Party may disclose information to the extent such disclosure is reasonably necessary to (a) file and prosecute Patent Rights which are filed or prosecuted in accordance with the provisions of this Agreement, (b) file, prosecute or defend litigation in accordance with the provisions of this Agreement, (c) file, prosecute or defend litigation in accordance with the provisions of this Agreement or (c) comply with Applicable Law, regulations or court orders; provided, however, that if a receiving Party is required to make any such disclosure of a disclosing Party’s Confidential Information in connection with any of the foregoing, it will give reasonable advance notice to the disclosing Party of such disclosure requirement and will use reasonable efforts to assist such disclosing Party in efforts to secure confidential treatment of such information required to be disclosed. The Parties hereby agree that a copy of this Agreement may be provided by Paratek to Tufts pursuant to Paratek’s obligations under the Tufts License Agreement.

Portions of this Exhibit, indicated by the mark “[***].” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
6.1.3 **Employees and Consultants.** Paratek and WCCI each hereby represents that all of its employees, and all of the employees of its Affiliates, and any consultants to such Party or its Affiliates, in any case that participate in the activities of the Backup Compound Research Program and/or the Development and Commercialization and who shall have access to Confidential Information of the other Party or any of its Affiliates shall be bound by written obligations (including such provision as contained in employment agreements) to maintain such information in confidence and not to use such information except as expressly permitted herein. Each Party agrees to enforce confidentiality obligations to which its employees and consultants (and those of its Affiliates) are obligated.

6.2 **Publicity.** Neither Party nor any of its Affiliates may publicly disclose the existence or terms of this Agreement without the prior written consent of the other Party; provided, however, that either Party may make such a disclosure (a) to the extent required by law or by the requirements of any nationally recognized securities exchange, quotation system or over-the-counter market on which such Party has its securities listed or traded or (b) to any investors, prospective investors, lenders and other potential or current financing sources who are obligated to keep such information confidential. In the event that such disclosure is required under clause (a) as aforesaid, the disclosing Party shall make reasonable efforts to provide the other Party with notice beforehand and to endeavor to coordinate with the other Party with respect to the wording and timing of any such disclosure. The Parties, upon the execution of this Agreement, will publicly issue a joint press release, in the form of Schedule 3 attached hereto, with respect to this Agreement and the Parties relationship hereunder. Once such press release or any other written statement is approved for disclosure by both Parties, either Party or any of such Party’s Affiliates, may make subsequent public disclosure of the contents of such statement without the further approval of the other Party. Additionally, from time to time, the Parties may make additional press releases with regard to events occurring under this Agreement, including achievement of milestones, with the prior written consent of both Parties.

6.3 **Prohibition on Solicitation.** Without the written consent of the other Party, neither Party nor its Affiliates shall, during the Term of this Agreement or for a period of one (1) year following the expiration or termination of the Term, whichever is shorter, solicit any employee of such Party or its Affiliates who participated in the Backup Compound Research Program and/or the Development activities. This provision shall not restrict either Party or its Affiliates from advertising employment opportunities in any manner that does not directly target the other Party or its Affiliates.

**ARTICLE 7: EXCLUSIVITY; LICENSE GRANTS; ROYALTIES**

7.1 **Exclusivity During the Term.**

7.1.1 **Paratek Restrictions.** During the Term, Paratek, for itself and its Affiliates, agrees not to directly or indirectly (a) undertake any research, development, manufacturing, marketing, promotion, sale or other commercialization of any Tetracycline Compound for use in the Field and in the Territory or (b) grant any license or other rights to any Third Party to research, develop, manufacture, market, sell, promote or otherwise commercialize any Tetracycline Compound for use in the Field and in the Territory.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
7.1.2 **WCCI Restrictions.** During the Term, WCCI agrees that, except pursuant to and as permitted by this Agreement, neither WCCI nor its Affiliates shall, either itself or directly or indirectly with or through any WCCI Affiliate or any Third Party, undertake any research, development, manufacturing, marketing, promotion, sale or other commercialization of any product containing a Paratek Compound for any use other than the Development and Commercialization of Products in the Field in accordance with this Agreement.

7.1.3 **Non-Commercial Collaboration.** Notwithstanding the foregoing, with the prior written consent of the other Party, each Party or any of such Party’s Affiliates may enter into agreements with academic, research, or other non-commercial institutions with the goal of advancing the collaboration between the Parties hereunder; provided that the terms of such agreements provide that such academic, research or other non-commercial institutions do not acquire any exclusive intellectual property rights out of or in connection with the work research and development activities performed under such agreements.

7.2 **Development and Commercialization Licenses.**

7.2.1 **License to WCCI in the Field.** Subject to the terms of this Agreement, including, without limitation, Sections 3.7 and 3.9 hereof, Paratek hereby grants (and hereby agrees to cause any of its Affiliates that Controls Licensed Technology, Licensed Patent Rights and/or any interest in Joint Technology or Joint Patent Rights to grant) to WCCI (a) an exclusive (even as to Paratek and its Affiliates, except as provided below, and subject to Section 3.7) royalty-bearing license, including the right to grant sublicenses as provided in Section 7.2.2 below, under Licensed Technology and Licensed Patent Rights and Paratek’s interest in Joint Technology and Joint Patent Rights, (i) to research, have researched, Develop, have Developed, manufacture and have manufactured Lead Candidates and Backup Compounds that are not Abandoned Compounds in the Field and in the Territory in accordance with this Agreement; and (ii) to research, have researched, Develop, have Developed, manufacture, have manufactured, use, have used, sell, distribute for sale, have distributed for sale, offer for sale, have sold, import, have imported, otherwise Commercialize and otherwise have Commercialized Products in the Field and in the Territory and (b) an exclusive (even as to Paratek and its Affiliates) royalty-free license, including the right to grant sublicences as provided in Section 7.2.2 below, to research, have researched, develop, have developed, manufacture and have manufactured Paratek Competitive Compounds in the Field and in the Territory. For the avoidance of doubt, Paratek grants no right or license under the Licensed Technology or Licensed Patent Rights or Paratek’s interest in Joint Technology and Joint Patent Rights to WCCI or its Affiliates to make derivatives of any Backup Compounds, or to commercialize such derivatives, unless any such derivatives become Lead Candidates and/or unless any such derivative would be deemed to have been Derived from a Product for purposes of Section 1.62. WCCI hereby grants Paratek a non-exclusive, worldwide, royalty-free license under the Licensed Technology and Licensed Patent Rights and Paratek’s interest in Joint Technology and Joint Patent Rights solely to perform its obligations under the Backup Compound Research Program, if any, and/or to conduct the Paratek Development activities set forth in the Development Plan with respect to Lead Candidates, if any.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
7.2.2 **Right to Sublicense.** Subject to the provisions of Sections 7.2.1 and 2.3(e) of the Tufts License Agreement, if and to the extent applicable, WCCI shall have the right to (a) extend to its Affiliates, the rights and licenses granted to it under Section 7.2.1 and (ii) grant to Third Parties sublicenses under the rights and licenses granted to it under Section 7.2.1; provided, that, (A) WCCI shall have obtained the prior written approval of Paratek, which approval shall not be unreasonably withheld, delayed or conditioned; (B) it shall be a condition of any such extension or sublicense that such Affiliate or Third Party agrees to be bound by all of the applicable terms and conditions of this Agreement (including without limitation Article 6 hereof) and (C) WCCI shall provide written notice to Paratek of any such extension or sublicense no more than thirty (30) days after such execution, and upon Paratek's request, provide copies to Paratek of each such executed extension or sublicense. If WCCI, or a Sublicensee, grants a sublicense to a Sublicensee or extends rights to its Affiliates, WCCI shall be deemed to have guaranteed that such Sublicensee or Affiliate will fulfill all of obligations under this Agreement applicable to such Affiliate or Sublicensee; provided, however, that WCCI shall not be relieved of its obligations pursuant to this Agreement as a result of such sublicense or extension of rights.

7.2.3 **License to Paratek Outside the Territory.** Upon the request of Paratek, the Parties agree to enter into good faith negotiations with respect to the terms of a license agreement containing royalty provisions and other customary terms, pursuant to which WCCI and its Affiliates would grant to Paratek an exclusive license (even as to WCCI and its Affiliates) (including the right to grant sublicenses, under WCCI Technology (including, without limitation, all Clinical Trial Data) and WCCI Patent Rights and WCCI’s interest in Joint Technology and Joint Patent Rights, to research, have researched, develop, have developed, manufacture, have manufactured, use, have used, sell, distribute for sale, have distributed for sale, offer for sale, have sold, import, have imported, otherwise Commercialize and otherwise have Commercialized Products, for any and all uses (including, without limitation any and all uses within the Field) outside the Territory, it being understood that Paratek will covenant in any such license agreement to use Commercially Reasonable Efforts to prevent any such Products from being imported into the Territory for resale by any Third Party without WCCI’s prior written consent. WCCI shall cause its Affiliates not to grant any rights (whether by license or otherwise) to any Third Party, or otherwise to take any other action, that would impair or adversely affect the ability of such Affiliates to grant to Paratek a license in accordance with this Section 7.2.3.

7.2.4 **Bankruptcy.** All the negative covenants set forth in Sections 3.8 and 7.1 hereof and the licenses and rights to licenses granted under or pursuant to Section 7.2 hereof by Paratek to WCCI or by WCCI to Paratek are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the United States Bankruptcy Code (the “Code”), and any such equivalent law in the United States, licenses of rights to “intellectual property” as defined under Section 101(35A) of the Code. The Parties agree that WCCI or Paratek, as a covenantee and licensee of such rights under this Agreement, shall retain and may fully exercise all of its rights and elections under the Code, and any such equivalent law, and that upon commencement of a bankruptcy proceeding by or against Paratek or WCCI, as the case may be, under the Code, WCCI or Paratek, as applicable, shall be entitled to a complete duplicate of or complete access to, any such intellectual property and all embodiments of such intellectual property. Such intellectual property and all embodiments thereof shall be promptly delivered to WCCI (i) upon any such commencement of a bankruptcy proceeding upon written request therefor by WCCI,

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unless Paratek (or the bankruptcy trustee) elects to continue to perform all of its obligations under this Agreement or (ii) if not delivered under (i) above, upon the rejection of this Agreement by or on behalf of WCCI upon written request therefor. The foregoing is without prejudice to any rights WCCI may have arising under the Code or other Applicable Law.

7.3 **Tufts License Agreement.** Paratek entered into the Tufts License Agreement with the Trustees of Tufts College ("Tufts") that may cover intellectual property rights that are inter alia claiming methods of synthesis for Lead Candidates. Paratek hereby grants to WCCI an exclusive royalty-free sublicense under the license granted to Paratek pursuant to the Tufts License Agreement solely to the extent such sublicense is required by WCCI in order to exercise the license granted to WCCI pursuant to Section 7.2 of this Agreement, without infringing any of the patent rights licensed to Paratek by Tufts. Without limiting the generality of the foregoing, WCCI and Paratek hereby acknowledge and agree that the provisions of Sections 3.8, 3.9, 3.10, 7.1, 8.1, 8.5 and 9.3 and Articles V, XI, and XII of the Tufts License Agreement shall be binding upon WCCI, as a sublicensee under the Tufts License Agreement and such provisions shall be fully enforceable for all purposes related thereto both by Tufts and Paratek. Paratek shall be responsible for any and all payments and royalties due to Tufts under the Tufts License Agreement. Paratek shall perform all of its obligations under the Tufts License Agreement in accordance with the terms therein, and shall not take any action that would cause or result in the termination of the Tufts License Agreement. Paratek shall not amend, modify, or enter into any agreement contemplating the amendment or modification, of the Tufts License Agreement if such amendment or modification would adversely affect WCCI’s rights under this Agreement. Notwithstanding anything to the contrary in this Agreement, WCCI agrees that it shall not use the name “Tufts University” or any variant thereof, or identify Tufts or any portion of Tufts as a beneficiary of this Agreement without the prior express written consent of Tufts, which may be withheld or withdrawn by Tufts in its complete and uncontrolled discretion.

7.4 **No Other Rights.** WCCI shall receive no rights to utilize Paratek Technology, or rights with respect to use of Paratek Technology, except as expressly set forth herein. Paratek shall receive no rights to utilize WCCI Technology, or rights with respect to use of WCCI Technology, except as expressly set forth herein.

7.5 **Payment of Royalties; Royalty Rates; Accounting and Records.**

7.5.1 **Payment of Royalties on Products.** In further consideration of the grant of the rights and licenses by Paratek hereunder, WCCI shall pay Paratek a royalty based on aggregate Annual Net Sales of all Products sold by WCCI, its Affiliates and its Sublicensees, at the following incremental rates:

<table>
<thead>
<tr>
<th>Annual Net Sales</th>
<th>Royalty Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Net Sales up to $[***]</td>
<td>[***]%</td>
</tr>
<tr>
<td>Portion of Annual Net Sales above $[<em><strong>] and up to $[</strong></em>]</td>
<td>[***]%</td>
</tr>
<tr>
<td>Portion of Annual Net Sales above $[***]</td>
<td>[***]%</td>
</tr>
</tbody>
</table>

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
7.5.2 **Know-How Royalty Rates.** If a Product is not covered by a Valid Patent Claim in the Territory, WCCI shall pay Paratek royalties at [***] percent ([***]%) of the applicable rates specified in Section 7.5.1 until expiration of the Royalty Term applicable to such Product. The Parties hereby acknowledge and agree that royalties that are payable for a Product during the Royalty Term for which no Patent Rights exist shall be in consideration of (a) Paratek’s expertise and know-how concerning the research, manufacture and Development of Compounds in the Field, including development activities conducted prior to the Effective Date; (b) the disclosure by Paratek to WCCI of results obtained in by Paratek in its performance of activities with respect to the Development; and (c) the licenses granted to WCCI hereunder with respect to Licensed Technology and Joint Technology that are not within the claims of any Patent Rights Controlled by Paratek.

7.5.3 **Royalty Term.** WCCI shall pay royalties with respect to each Product on a Product-by-Product basis during the period (such period, the “Royalty Term”) commencing on the date of First Commercial Sale of such Product in the Territory and continuing for so long as Products are sold in the Territory until the later of (a) the date on which there is no Valid Claim that is included in the Licensed Patent Rights or Joint Patent Rights that cover such Product in the Territory and (b) sales of Generic Products by any Third Party in the Territory are equal to at least [***] percent ([***]%) of WCCI’s unit-based market share of the Product in the Territory (as measured by prescriptions or other similar information available in the Territory). For purposes of this Section 7.5.3, a “Generic Product” means a pharmaceutical product that contains the same active ingredient as a Product and that is an AB Rated equivalent (as defined in the 22nd edition of Approved Drug Products with Therapeutic Equivalence Evaluations issued by the United States Department of Health and Human Services) to the Product.

7.5.4 **Payment Dates and Reports.** The royalty payments shall be paid by WCCI within forty-five (45) days after the end of each Calendar Quarter in which such Net Sales are made and royalties are owed hereunder. Each such payment shall be made in United States Dollars and shall be accompanied by a report showing the Net Sales of each Product sold by WCCI, any WCCI Affiliate or any Sublicensee, in the Territory, the applicable royalty rate for such Product, and a calculation of the amount of royalty.

7.5.5 **Records; Audit Rights.** WCCI and its Affiliates and Sublicensees shall keep for three (3) years from the date of each payment of royalties complete and accurate records of sales by WCCI and its Affiliates and Sublicensees of each Product, in sufficient detail to allow the accruing royalties to be determined accurately. Paratek shall have the right for a period of three (3) years after receiving any such report or statement to appoint at its expense an independent certified public accountant (bound by written confidentiality obligations no less protective than those set forth in Article 6 hereof) reasonably acceptable to WCCI to inspect the relevant records of WCCI and its Affiliates and Sublicensees to verify such report or statement. WCCI and its Affiliates and Sublicensees shall each make its records available for inspection by such independent certified public accountant during their regular business hours at such place or places where such records are customarily kept, upon reasonable notice from Paratek, solely to verify the accuracy of the reports and payments. Such inspection right shall not be exercised by Paratek more than once in any Calendar Year nor more than once with respect to sales of any Product in any given period. Paratek agrees to hold in strict confidence, and in accordance with

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Article 6 hereof, all information concerning such payments and reports, and all information learned in the course of any audit or inspection, except to the extent necessary for Paratek to reveal such information in order to enforce its rights under this Agreement or if disclosure is required by law. The results of each inspection, if any, shall be binding on both Parties, absent manifest error. Paratek shall pay for such inspections, except that in the event there is any upward adjustment in the aggregate royalties, payable for any Calendar Year shown by such inspection of more than five percent (5%) of the amount paid, WCCI shall pay for the reasonable costs of such inspection.

7.5.6 **Overdue Royalties.** All royalties payments not paid within the time period set forth in this Article 7 shall bear interest at a rate of one percent (1%) per month from the due date until paid in full; provided, that, in no event shall such annual rate exceed the maximum interest rate permitted by law in regard to such payments. Such royalty or milestone payment when made shall be accompanied by all interest so accrued.

7.5.7 **Withholding Taxes.** All payments made or required to be made by WCCI hereunder shall be reduced by the amount of any taxes (including withholding taxes to the extent applicable), duties, levies, fees or charges imposed thereon, provided, that, WCCI complies with its obligations set forth below in this Section 7.5.7 prior to making any payment to Paratek hereunder. WCCI shall make (or cause to be made) any applicable withholding payments due on behalf of Paratek and shall promptly provide (or cause to be provided) Paratek with written documentation of any such payment sufficient to satisfy the requirements of the United States Internal Revenue Service relating to an application by Paratek for a foreign tax credit for such payment.

**ARTICLE 8: INTELLECTUAL PROPERTY RIGHTS**

8.1 **Disclosure of Program Inventions.** Each Party shall promptly provide the other Party with written notice concerning all Program Inventions that are conceived, made or developed by employees or consultants of either of them or their Affiliates, alone or jointly with employees or consultants of the other Party or its Affiliates.

8.2 **Ownership.**

8.2.1 **Paratek Intellectual Property Rights.** Paratek shall have sole and exclusive ownership of all right, title and interest on a worldwide basis in and to any and all Paratek Technology and Paratek Patent Rights, with full rights to license or sublicense, subject to the obligations and licenses to WCCI as set forth herein. Without limiting the foregoing and subject to the licenses and other rights granted to WCCI pursuant to this Agreement, Paratek shall be the sole owner of all Patent Rights, all trade secret rights, all know-how and any other intellectual property rights in the Paratek Technology, including the sole and exclusive right to exclude others from making, using, selling, offering for sale or importing the Paratek Technology or any products that consist of, or incorporate, any Paratek Technology.

8.2.2 **WCCI Intellectual Property Rights.** WCCI shall have sole and exclusive ownership of all right, title and interest on a worldwide basis in and to any and all WCCI
Technology and WCCI Patent Rights, with full rights to license or sublicense, subject to the obligations and licenses to Paratek as set forth herein. Without limiting the foregoing, and subject to the licenses and other rights granted to Paratek pursuant to this Agreement, WCCI shall be the sole owner of all Patent Rights, all trade secret rights, all know-how and any other intellectual property rights in the WCCI Technology including the sole and exclusive right to exclude others from making, using, selling, offering for sale or importing the WCCI Technology or any products that consist of, or incorporate, any WCCI Program Technology.

8.2.3 Joint Technology Rights. WCCI and Paratek shall jointly own all Joint Technology and Joint Patent Rights and hereby agree that (a) subject to the rights of, and the licenses granted to, WCCI by Paratek under this Agreement (including, without limitation, under Section 7.2 hereof) and subject to the obligations of Paratek under this Agreement (including, without limitation, Sections 3.8 and 7.1.1 hereof), Paratek may use or license or sublicense to any Affiliate or Third Party all such Joint Technology and Joint Patent Rights, and (ii) WCCI may use or license or sublicense to any Affiliate or Third Party all such Joint Technology and Joint Patent Rights.

8.3 Patent Coordinators. Within thirty (30) days of the Effective Date, Paratek and WCCI shall each appoint a patent coordinator (each, a “Patent Coordinator” and collectively, the “Patent Coordinators”), reasonably acceptable to the other Party, who shall serve as such Party’s primary liaison with the other Party on matters relating to patent filing, prosecution, maintenance and enforcement. Each Party may replace its Patent Coordinator at any time by notice in writing to the other Party.

8.4 Inventorship. In case of a dispute between Paratek and WCCI over inventorship, the Parties, with the advice of the Patent Coordinators, shall make the determination of the inventor(s) by application of the standards contained in United States patent law. If the Parties cannot resolve the dispute, it shall be resolved by independent patent counsel, not otherwise engaged by either of the Parties or any of their respective Affiliates, selected by the Patent Coordinators. Expenses of such independent patent counsel shall be shared equally by the Parties.

ARTICLE 9: FILING, PROSECUTION AND MAINTENANCE OF PATENT RIGHTS

9.1 Patent Filing, Prosecution and Maintenance. The JSC shall determine the jurisdictions within the Territory in which patent applications will be filed with respect to Joint Patent Rights. Subject to the foregoing, the responsibility for filing, prosecution and maintaining Patent Rights shall be as follows:

9.1.1 Patent Filing. During the Term and thereafter during any period of time during which WCCI shall have a license under this Agreement to Paratek Patent Rights or to Joint Patent Rights, with respect to any Patent Rights arising hereunder:

(a) Paratek, at its sole expense and acting through patent attorneys or agents of its choice, shall be responsible for the preparation, filing, prosecution and maintenance of all Patent Rights relating to the Paratek Technology. At Paratek’s request, WCCI shall reasonably cooperate with and assist Paratek, at Paratek’s expense, in connection with such activities.

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 Portions of this Exhibit, indicated by the mark “[***].” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
(b) WCCI, at its sole expense and acting through patent attorneys or agents of its choice, shall be responsible for the preparation, filing, prosecution and maintenance of all Patent Rights relating to the WCCI Technology. At WCCI's request, Paratek shall reasonably cooperate with and assist WCCI, at WCCI's expense, in connection with such activities.

(c) Except as expressly provided in Article 11 hereof, neither Party makes any warranty with respect to the validity, perfection or dominance of any patent or other proprietary right or with respect to the absence of rights in Third Parties which may be infringed by the manufacture or sale of any Product. Each Party agrees to bring to the attention of the other Party any patent or patent application it discovers applicable to the subject matter of this Agreement, which relates to the rights of either Party under this Agreement.

(d) Unless the Parties otherwise agree, (i) Paratek, acting through patent counsel or agents of its choice, shall be responsible for the preparation, filing, prosecution and maintenance of Joint Patent Rights outside of the Territory; and (ii) WCCI, acting through patent counsel or agents of its choice, shall be responsible for the preparation, filing, prosecution and maintenance of Joint Patent Rights within the Territory. The Parties shall share equally the control and the fees of counsel and the other costs and expenses related to patents and patent applications claiming inventions that are Joint Technology. Should one Party desire not to share in the control, filing, prosecution or maintenance of any such patent or patent applications or shall fail to bear its share of the costs and expenses of filing, prosecuting or maintaining any such patent or patent applications and shall fail to bear its share of the costs and expenses of filing, prosecuting or maintaining any such patent or patent applications (and, in the case of such failure, if such failure is not cured within thirty (30) days after receipt of written notice of such failure from the participating Party), the non-participating Party hereby assigns (or shall cause to be assigned) to the other Party all right, title and interest in and to such patent or patent application, and the Joint Technology claimed therein, and the participating Party shall gain sole control of the filing, prosecution or maintenance of such patents or patent applications, which shall be deemed to be the Technology of such participating Party.

9.1.2 Information and Cooperation. Each Party responsible for filing patents and any Patent Rights (other than with respect to WCCI Technology) described in this Agreement (the “Filing Party”) shall keep the other Party regularly informed of the status of the Patent Rights for which it is responsible in accordance with this Article 9 (other than with respect to WCCI Technology). The Filing Party shall provide the other Party with (a) copies of all filings and correspondence with the patent offices, administrative boards or courts which the Filing Party sends or receives in connection with filing, prosecution, maintenance and defense of the Patent Rights for which it is responsible (other than with respect to WCCI Technology), and (b) copies of filings and correspondence referred to in the foregoing clause (a) sufficiently in advance of the due date so as to give the other Party sufficient time to comment and shall give good faith consideration to the other Party’s comments. The Filing Party shall seek the advice of the other Party with respect to strategy for the Patent Rights for which it is responsible (other than with respect to WCCI Technology) and shall give reasonable consideration to any suggestions or recommendations of the other Party concerning the preparation, filing, prosecution, maintenance and defense of such Patent Rights.
9.1.3 Abandonment. If Paratek decides to abandon or to allow to lapse any of the Paratek Patent Rights in the Territory, Paratek shall inform WCCI of such decision promptly and, in any event, a reasonable amount of time prior to any applicable deadline that may be necessary to establish or preserve such Paratek Patent Rights. WCCI shall have the right to assume responsibility for continuing the prosecution of such Paratek Patent Rights and paying any required fees to maintain such Paratek Patent Rights in the Territory or defending such Paratek Patent Rights, in each case at WCCI’s sole expense and through patent counsel of its choice. WCCI shall not become an assignee of such Paratek Patent Rights as a result of its assumption of such responsibility under this Section 9.1.3 and such Paratek Patent Rights shall remain subject to this Agreement. Upon transfer of Paratek’s responsibility for prosecuting, maintaining and defending any of the Paratek Patent Rights to WCCI under this Section 9.1.3, Paratek shall promptly deliver to WCCI copies of all necessary files related to the Paratek Patent Rights with respect to which responsibility has been transferred and shall take all actions and execute all documents reasonably necessary for WCCI to assume such prosecution, maintenance and defense.

9.2 Legal Action.

9.2.1 Actual or Threatened Infringement.

(a) In the event either Party or any of such Party’s Affiliates becomes aware of any possible infringement or unauthorized possession, knowledge or use of any Technology that is the subject matter of this Agreement, including any Joint Technology, in connection with the discovery, research, development, manufacture, use, sale import or commercialization of (i) a Paratek Compound in the Field, or (ii) a Lead Candidate or Product within or outside of the Field (collectively, an “Infringement”), that Party shall promptly notify the other Party and provide it with full details (an “Infringement Notice”).

(b) WCCI shall have the first right and option, but not the obligation, to prosecute or prevent an Infringement as WCCI will consider appropriate. If WCCI does not commence an action to prosecute, or otherwise take steps to prevent or terminate the Infringement within one hundred eighty (180) days from any Infringement Notice, then, except with respect to WCCI Technology, Paratek shall have the right and option to take such action as Paratek will consider appropriate to prosecute or prevent such Infringement unless (i) the Infringement is a Tufts IP Infringement, in which case Tufts shall have the right and option to take such action as Tufts will consider appropriate to prosecute or prevent such Infringement or (ii) the provisions of Section 9.2.1(c) below shall not permit Paratek to prosecute or prevent such Infringement. Any and all recoveries from any action for infringement shall be shared as follows: (1) if such Infringement is a Tufts IP Infringement and WCCI is prosecuting such action for Infringement, Tufts shall be paid [***] percent ([***]%) of any and all such recoveries, net of costs incurred by WCCI for prosecuting the action, and WCCI shall retain the remaining balance and such remaining balance (net of costs incurred by WCCI for prosecuting the action) shall be treated as Net Sales, subject to the payment of royalties to Paratek in accordance with this Agreement.

 Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
Agreement; (2) if such Infringement is a Tufts IP Infringement and Paratek is prosecuting such action for Infringement, Tufts shall be paid [***] percent ([***]%)
of any and all such recoveries, net of costs incurred by Paratek for prosecuting the action, and the net balance remaining (net of costs incurred by Paratek for prosecuting the action) shall be retained by Paratek and [***] between Paratek and WCCI, respectively; (3) if such Infringement is a Tufts IP Infringement and Tufts is prosecuting such action for Infringement, Tufts shall be entitled to retain from such recoveries an amount equal to the costs incurred by Tufts in prosecuting such action plus [***] percent ([***]%) of the remaining balance, and the balance remaining after payment of all amounts due to Tufts shall be retained by WCCI and treated as Net Sales; (4) if such Infringement is not a Tufts IP Infringement and WCCI is prosecuting such action for Infringement, such recoveries shall be allocated first, to reimburse WCCI and Paratek for their reasonable out-of-pocket expenses in making such recovery (which amounts shall be allocated pro rata if insufficient to cover the totality of such expenses) and then WCCI shall treat and all such recoveries as Net Sales for purposes of this Agreement, subject to the payment of royalties to Paratek in accordance with this Agreement; and (5) if such Infringement is not a Tufts IP Infringement and Paratek is prosecuting such action for Infringement, such recoveries shall be allocated first, to reimburse WCCI and Paratek for their reasonable out-of-pocket expenses in making such recovery (which amounts shall be allocated pro rata if insufficient to cover the totality of such expenses) and the balance shall be [***] between Paratek and WCCI, respectively. If either of WCCI or Paratek determines that it is necessary for the other Party or any of its Affiliates to join any such suit, action or proceeding, the necessary Party shall, upon written notice from the prosecuting Party, execute (or cause to be executed) all papers and perform such other acts as may be reasonably required in the circumstances; provided, however, neither Party nor such Party’s Affiliates shall be required to transfer any right, title or interest in or to any property to any other Party or any Third Party to confer standing on a Party hereunder.

(c) Notwithstanding anything in Section 9.2.1(b) express or implied to the contrary, but subject to the provisions of Section 10.2.5(b)(iii), in no event shall Paratek have the right to prosecute or prevent the Infringement of or relating to (i) WCCI Patent Rights or WCCI Technology or (ii) Paratek Patent Rights, Joint Patent Rights, Paratek Technology or Joint Technology to the extent they pertain solely to Products, Lead Candidates or rights that have been licensed exclusively to WCCI pursuant to Section 7.2.1. Nothing in this Section 9.2.1(c) is intended to limit the rights of Tufts under the Tufts License Agreement and WCCI hereby acknowledges that Tufts may have the right under the Tufts License Agreement to prosecute or prevent an Infringement that Paratek does not have the right to prosecute or prevent by virtue of the provisions of this Section 9.2.1(c).

(d) In any action under this Section 9.2.1, the Parties and their respective Affiliates shall fully cooperate with and assist each other. No suit under this Section 9.2.1 may be settled without the approval of the JSC provided, however, any settlement by which Tufts would incur any obligation or liability, whether for the payment of money, the taking of any action, the refraining from any action, or otherwise, shall require the advance written consent of Tufts, which may be withheld in the sole discretion of Tufts without relieving WCCI or Paratek, as the case may be, of any of its indemnification or other obligations hereunder to Tufts.

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9.2.2 Defense of Claims.

(a) In the event that any action, suit or proceeding is brought against Paratek or WCCI or any Affiliate or sublicensee of either Party alleging the infringement of the Technology or intellectual property rights of a Third Party by reason of the discovery, development, manufacture, use, sale, importation or offer for sale of a Product or use of WCCI Technology, Paratek Technology or Joint Technology in the discovery, Development, Commercialization, manufacture, use, sale, offer for sale, or importation of a Product, then WCCI shall have the sole right and obligation to defend itself and Paratek in such action, suit or proceeding at its sole expense, unless such action, suit or proceeding alleges that the infringement arises from or otherwise pertains to the use of Paratek Technology by Paratek or WCCI to synthesize, generate, make and develop Paratek Compounds, Lead Candidates or Products in which case WCCI shall have the right (but not the obligation) to defend Paratek in such action, suit or proceeding at its sole expense. Paratek shall have the right to separate counsel at its own expense in any action, suit or proceeding being defended by WCCI pursuant to this Section 9.2.2(a). The Parties and their respective Affiliates shall cooperate with each other in the defense of any such suit, action or proceeding. The Parties will give each other prompt written notice of the commencement of any such suit, action or proceeding and will furnish each other a copy of each communication relating to the alleged infringement. Neither Party nor such Party’s Affiliates shall compromise, settle or otherwise dispose of any such suit, action or proceeding which involves the other’s Technology or Patent Rights without the other Party’s advice and prior consent if such compromise, settlement or other disposition would impair any rights retained by such other Party or any of its Affiliates to use such Technology or Patent Rights, provided that the Party not defending the suit shall not unreasonably withhold its consent to any settlement. If the defending Party agrees that the other Party or any of its Affiliates should institute or join any suit, action or proceeding pursuant to this Section 9.2.2(a), the defending Party may at its expense, join the other Party or any of its Affiliates as a party to the suit, action or proceeding, and the Party or Affiliate so joined shall execute all documents and take all other actions, including giving testimony, which may reasonably be required in connection with the prosecution of such suit, action or proceeding.

(b) To the extent that the allegation of infringement is based principally on the use of Joint Technology, such expenses shall be borne equally by the Parties.

(c) If as a consequence of such action, suit or proceeding by a Third Party claiming that the discovery, development, manufacture, use or sale of a Product infringes such Third Party’s intellectual property rights, the Parties shall examine and discuss in good faith the consequences of such prohibition or restriction or other conditions on this Agreement and on possible modifications thereto; provided, however, no action will be taken without the agreement of both Parties.

ARTICLE 10: TERMINATION

10.1 Term. This Agreement shall commence on the Effective Date and shall continue until terminated in accordance with the provisions of this Article 10 (the “Term”).
10.2 **Termination.** This Agreement may be terminated at any time by either Party as follows:

10.2.1 **Unilateral Right to Terminate During the Term.** WCCI may terminate this Agreement for convenience effective on the last day of each of the first and second Contract Year, provided that WCCI delivers written notice of termination to Paratek at least ninety (90) days prior to such effective date of termination.

10.2.2 **Unilateral Right to Terminate After the Term.** If at any time on and after the date on which WCCI has commenced Development of a Product (a) WCCI reasonably determines that (i) it would not be commercially viable to continue to Develop and Commercialize such Product and/or obtain Commercialization Regulatory Approval with respect to such Product and (ii) WCCI is unlikely or unable to obtain Commercialization Regulatory Approval with respect to such Product (each, a “Termination Event”), (b) no Backup Compound is ready to be Developed by WCCI and (c) the Parties have not agreed to extend the Development Plan to conduct Development activities with respect to such Backup Compound pursuant to Section 3.5, WCCI shall provide the JSC with written notice which shall describe the Termination Event in reasonable detail. The JSC shall meet as soon as practicable thereafter to determine the additional actions, if any, to be undertaken by the Parties to fulfill the purposes of this Agreement. If the JSC fails to meet or the Parties are otherwise unable to agree upon any such course of action within ninety (90) days of the date of WCCI’s Termination Event notice, then either Party shall have the right to terminate this Agreement by providing written notice of termination within ten (10) days after the expiration of such 90-day period.

10.2.3 **Termination for Breach.** In the event that either Party defaults or breaches any material term of this Agreement on its part to be performed or observed, the other Party shall have the right to terminate this Agreement (a) by giving thirty (30) days’ written notice to the defaulting Party in the case of a breach of any payment term of this Agreement and (b) by giving sixty (60) days’ written notice to the defaulting Party in the case of any other breach; provided, however, that in the case of a default or breach capable of being cured, if the said defaulting Party shall cure the said default or breach within such notice period after the said notice shall have been given, then the said notice shall not be effective; and provided, further that the provisions of this Section 10.2.3 shall not apply to any material breach of this Agreement arising from a WCCI Diligence Failure (it being understood that Paratek’s sole and exclusive remedies upon any material breach of this Agreement arising from a WCCI Diligence Failure are set forth in Sections 3.9.3).

10.2.4 **Termination for Insolvency.** In the event that either Party files for protection under bankruptcy laws, makes an assignment for the benefit of creditors, appoints or suffers appointment of a receiver or trustee over its property, files a petition under any bankruptcy or insolvency act of has any such petition filed against it which is not discharged within sixty (60) days of the filing thereof, then the other Party may terminate this Agreement effective immediately upon written notice to such Party.

10.2.5 **Consequences of Terminations Under Section 10.2.1.** In the event of the termination of this Agreement by WCCI pursuant to Section 10.2.1:

(a) all rights and licenses granted by one Party to the other hereunder shall immediately terminate;

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Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
(b) each Party shall within thirty (30) days of the termination date, destroy, or at the other Party’s request return, all of such other Party’s Confidential Information (other than with respect to maintaining one (1) archival copy of such Confidential Information related thereto for its legal files, for the sole purpose of determining its obligations under this Agreement) and shall provide such Party with certification that all such Confidential Information have been destroyed or returned to such Party as appropriate;

(c) the rights and obligations of the Parties and their respective Affiliates provided in Sections 3.11, 7.5.5, 10.2.5, 10.2.8, 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7 and 14.2 and Articles 1 and 6 hereof shall survive such termination; and

(d) except as expressly set forth in this Section 10.2.5 and Section 10.2.8 hereof, all other rights and obligations under this Agreement shall terminate.

10.2.6 Consequences of Terminations Under Sections 10.2.2. In the event of the termination of this Agreement by either Party pursuant to Sections 10.2.2:

(a) The licenses granted to WCCI and its Affiliates pursuant to Section 7.2.1 and 7.2.2 hereof and the restrictions on Paratek and its Affiliates pursuant to Sections 3.8 and 7.1.1 shall immediately terminate.

(b) WCCI shall be deemed to have granted to Paratek, as of the date of termination, an exclusive (even as to WCCI), worldwide, royalty-free license, with the right to sublicense, in the Field under the WCCI Program Technology, the WCCI Patent Rights as they pertain to WCCI Program Technology, WCCI’s interest in Joint Technology and Joint Patent Rights, and the Product Trademarks to develop, have developed, commercialize, make, have made, use, sell, have sold, offer for sale, distribute for sale, import and have imported those Lead Candidates and Products being Developed or Commercialized by WCCI as of the date of termination.

(c) Each Party shall within thirty (30) days of the termination date, destroy, or at the other Party’s request return, all of such other Party’s Confidential Information (other than with respect to maintaining one (1) archival copy of such Confidential Information related thereto for its legal files, for the sole purpose of determining its obligations under this Agreement) and shall provide such other Party with certification that all such Confidential Information have been destroyed or returned to such other Party as appropriate.

(d) WCCI shall, within thirty (30) days of the termination date, at the request of Paratek, assign (if assignable under its terms) to Paratek for no additional consideration (other than Paratek’s assumption of WCCI’s obligations) all of WCCI’s rights and obligations under any then-existing agreement with any Third Party that contains any sublicense to such Third Party of any of the rights licensed by Paratek to WCCI pursuant to this Agreement. Paratek shall indemnify and hold harmless WCCI against any and all Third Party claims, damages, losses, liabilities, costs and expenses arising out of events occurring after the assignment incurred or suffered by WCCI in connection with any such agreement assigned to Paratek pursuant to this Section 10.2.6(d) or in connection with any dispute between such Third Party and Paratek as a result of any action taken or not taken by Paratek.

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Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
(e) If WCCI is manufacturing, or having manufactured, Lead Candidates or Products on the date of termination, (1) WCCI shall supply, or have supplied, Paratek with those of such Lead Candidates or Products, as applicable, that Paratek may reasonably request until the earlier of (A) the date on which Paratek or its designee validates a manufacturing process for such Lead Candidates or Products, it being understood that Paratek shall use Commercially Reasonable Efforts to complete such validation as promptly as practicable and (B) the date that is thirty six (36) months following such termination, pursuant to a transition plan to be agreed upon by the Parties promptly following such termination, (2) Paratek shall pay WCCI [***], for the supply of Lead Candidate or Product, as applicable and (3) WCCI shall provide to Paratek or its designee all information in its possession with respect to the manufacture of Lead Candidate or Product, as applicable. Any and all costs and expenses that WCCI shall incur to Third Party contract manufacturers as a result of complying with the provisions of this Section 10.2.6(e) shall be paid by Paratek. WCCI shall have no liability or otherwise be responsible for any action taken or not taken by any Third Party contract manufacturer of WCCI or for any Lead Candidate or Products supplied by a Third Party pursuant to this Section 10.2.6(e). Paratek shall indemnify and hold harmless WCCI against any and all Third Party claims, damages, losses, liabilities, costs and expenses incurred or suffered by WCCI in connection with Lead Candidates or Products supplied pursuant to this Section 10.2.6(e) or any action taken or not taken by Paratek in connection with such Lead Candidates or Products.

(f) Unless prohibited by any Regulatory Authority or under Applicable Laws, WCCI shall promptly (A) transfer to Paratek all of its right, title and interest in all Regulatory Filings and Regulatory Approvals then in its name for all Lead Candidates and Products identified as of the date of termination and all material aspects of Confidential Information Controlled by it as of the date of termination relating to such Regulatory Filings and Regulatory Approvals, (B) notify the appropriate Regulatory Authorities and take any other action reasonably necessary to effect such transfer of ownership, (C) deliver to Paratek all correspondence between WCCI and such Regulatory Authorities relating to such Regulatory Filings and Regulatory Approvals and (D) transfer control to Paratek of all clinical trials being conducted as of the date of termination which relate to the Products and continue to conduct such trials until the earlier of (Y) completion of the transfer and (Z) six (6) months from the termination effective date. Any and all costs and expenses that WCCI shall incur to third parties as a result of complying with the provisions of this Section 10.2.6(b)(vii) shall be paid by Paratek, and any and all internal costs and expenses that WCCI incurs in complying with its obligations under Clause D of this Section 10.2.6(e) shall be paid by Paratek. WCCI shall have no liability or otherwise be responsible for clinical trials that WCCI continues to conduct pursuant to this Section 10.2.6(e), and Paratek shall indemnify and hold harmless WCCI against any and all Third Party claims, damages, losses, liabilities, costs and expenses (“Trial Claims”) incurred or suffered by WCCI in connection with such clinical trial except to such extent the Trial Claims are attributable to WCCI’s gross negligence or willful misconduct.

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Portions of this Exhibit, indicated by the mark “[***].” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
(g) the rights and obligations of the Parties and their respective Affiliates provided in Sections 3.11, 7.5.5, 10.2.6, 10.2.8, 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7 and 14.2 and Articles 1 and 6 hereof shall survive such termination.

(h) Except as expressly set forth in this Section 10.2.6 and Section 10.2.8 hereof, all other rights and obligations under this Agreement shall terminate.

10.2.7 Consequences of Terminations Under Sections 10.2.3 or 10.2.4. In the event of the termination of this Agreement by either Party pursuant to Sections 10.2.3 or 10.2.4:

(a) If WCCI is the Party giving notice of termination, the following shall apply:

(i) WCCI and its Affiliates shall continue to have the licenses granted pursuant to Section 7.2.1 hereof, subject to its continued payment of the applicable milestone and royalty payments with respect thereto as set forth in Sections 5.3.1 and 7.5.1 hereof, and the restrictions on Paratek and its Affiliates pursuant to Sections 3.8 and 7.1 shall remain in effect in accordance with the respective terms thereof, provided that if such termination is a result of a breach by Paratek of its obligations under Sections 3.8 or 7.1.1 then Paratek shall be deemed to have granted to WCCI as of such termination date an exclusive, fully paid up, perpetual, royalty-free license pursuant to Section 7.2.1 without further obligation to continue to make any milestone or royalty payments hereunder;

(ii) all rights and licenses granted to Paratek and its Affiliates by WCCI and its Affiliates pursuant to this Agreement shall immediately terminate;

(iii) Paratek shall within thirty (30) days of the termination date, destroy, or at WCCI's request return, all of WCCI's Confidential Information (other than with respect to maintaining one (1) archival copy of such Confidential Information related thereto for its legal files, for the sole purpose of determining its obligations under this Agreement) and any Proprietary Materials of WCCI, and shall provide WCCI with certification by an officer of Paratek that all such Confidential Information and Proprietary Materials have been destroyed or returned to WCCI, as appropriate;

(iv) the rights and obligations of the Parties and their respective Affiliates provided in Sections 3.11, 7.5.5, 10.2.7, 10.2.8, 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7 and 14.2 and Articles 1 and 6 hereof shall survive such termination; and

(v) except as expressly set forth in this Section 10.2.7(a) and Section 10.2.8 hereof, all other rights and obligations under this Agreement shall terminate.

(b) If Paratek is the Party giving notice of termination, then the following shall apply:

(i) The licenses granted to WCCI and its Affiliates pursuant to Sections 7.2.1 and 7.3.1 hereof and the restrictions on Paratek and its Affiliates pursuant to Sections 3.6.3 and 7.1.1 shall immediately terminate.

38 Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
(ii) WCCI shall be deemed to have granted to Paratek, as of the date of termination, an exclusive (even as to WCCI), worldwide, royalty-free license, with the right to sublicense, in the Field under the WCCI Program Technology, the WCCI Patent Rights as they pertain to WCCI Program Technology, WCCI’s interest in Joint Technology and Joint Patent Rights, and the Product Trademarks to develop, have developed, commercialize, make, have made, use, sell, have sold, offer for sale, distribute for sale, import and have imported those Lead Candidates and Products being Developed or Commercialized by WCCI as of the date of termination.

(iii) Each Party shall within thirty (30) days of the termination date, destroy, or at the other Party’s request return, all of such other Party’s Confidential Information (other than with respect to maintaining one (1) archival copy of such Confidential Information related thereto for its legal files, for the sole purpose of determining its obligations under this Agreement), and shall provide such other Party with certification that all such Confidential Information have been destroyed or returned to such other Party as appropriate.

(iv) WCCI shall, within thirty (30) days of the termination date, at the request of Paratek, assign (if assignable under its terms) to Paratek for no additional consideration (other than Paratek’s assumption of WCCI’s obligations) all of WCCI’s rights and obligations under any then-existing agreement with any Third Party that contains any sublicense to such Third Party of any of the rights licensed by Paratek to WCCI pursuant to this Agreement. Paratek shall indemnify and hold harmless WCCI against any and all Third Party claims, damages, losses, liabilities, costs and expenses arising out of events occurring after the assignment incurred or suffered by WCCI in connection with any such agreement assigned to Paratek pursuant to this Section 10.2.7(b)(iv) or in connection with any dispute between such Third Party and Paratek as a result of any action taken or not taken by Paratek.

(v) If WCCI is manufacturing, or having manufactured, Lead Candidates or Products on the date of termination, (1) WCCI shall supply, or have supplied, Paratek with those of such Lead Candidates or Products, as applicable, that Paratek may reasonably request until the earlier of (A) the date on which Paratek or its designee validates a manufacturing process for such Lead Candidates or Products, it being understood that Paratek shall use Commercially Reasonable Efforts to complete such validation as promptly as practicable and (B) the date that is thirty six (36) months following such termination, pursuant to a transition plan to be agreed upon by the Parties promptly following such termination, (2) Paratek shall pay WCCI [***], for the supply of Lead Candidate or Product, as applicable and (3) WCCI shall provide to Paratek or its designee all information in its possession with respect to the manufacture of Lead Candidate or Product, as applicable. Any and all costs and expenses that WCCI shall incur to Third Party contract manufacturers as a result of complying with the provisions of this Section 10.2.7(b)(v) shall be paid by Paratek. WCCI shall have no liability or otherwise be responsible for any action taken or not taken by any Third Party contract manufacturer of WCCI or for any Lead Candidate or Products supplied by a Third Party pursuant to this Section 10.2.7(b)(v). Paratek shall indemnify and hold harmless WCCI against any and all Third Party claims, damages, losses, liabilities, costs and expenses incurred or suffered by WCCI in connection with Lead Candidates or Products supplied pursuant to this Section 10.2.7(b)(v) or any action taken or not taken by Paratek in connection with such Lead Candidates or Products.

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Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
(vi) Unless prohibited by any Regulatory Authority or under Applicable Laws, WCCI shall promptly (A) transfer to Paratek all of its right, title and interest in all Regulatory Filings and Regulatory Approvals then in its name for all Lead Candidates and Products identified as of the date of termination and all material aspects of Confidential Information Controlled by it as of the date of termination relating to such Regulatory Filings and Regulatory Approvals, (B) notify the appropriate Regulatory Authorities and take any other action reasonably necessary to effect such transfer of ownership, (C) deliver to Paratek all correspondence between WCCI and such Regulatory Authorities relating to such Regulatory Filings and Regulatory Approvals and (D) transfer control to Paratek of all clinical trials being conducted as of the date of termination which relate to the Products and continue to conduct such trials until the earlier of (Y) completion of the transfer and (Z) six (6) months from the termination effective date. Any and all costs and expenses that WCCI shall incur to third parties as a result of complying with the provisions of this Section 10.2.7(b)(vii) shall be paid by Paratek, and any and all internal costs and expenses that WCCI incurs in complying with its obligations under Clause D of this Section 10.2.7(b)(vii) shall be paid by Paratek. WCCI shall have no liability or otherwise be responsible for clinical trials that WCCI continues to conduct pursuant to this Section 10.2.7(b)(vii), and Paratek shall indemnify and hold harmless WCCI against any and all Trial Claims incurred or suffered by WCCI in connection with such clinical trial except to such extent the Trial Claims are attributable to WCCI’s gross negligence or willful misconduct.

(vii) the rights and obligations of the Parties and their respective Affiliates provided in Sections 3.11, 7.5.5, 10.2.7, 10.2.8, 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7 and 14.2 and Articles 1 and 6 hereof shall survive such termination.

(viii) Except as expressly set forth in this Section 10.2.7(b) and Section 10.2.8 hereof, all other rights and obligations under this Agreement shall terminate.

10.2.8 No Impairment of Accrued or Matured Claims. Termination or expiration of this Agreement for any reason shall be without prejudice to any claim either Party may have against the other Party, either at law or in equity that was accrued or matured prior to such termination or expiration.

ARTICLE 11: REPRESENTATIONS AND WARRANTIES

11.1 Representations and Warranties of Both Parties. Paratek and WCCI each represents and warrants to the other, as of the Effective Date, as follows:

11.2.3 Tufts License Agreement. As of the Effective Date, the Tufts License Agreement is in full force and effect and Paratek is not in breach or default in the performance of its obligations under the Tufts License Agreement. To the knowledge of Paratek, there has been no breach, default or non-compliance of Paratek under the terms of the Tufts License Agreement. There have been no amendments or other modification to the Tufts License Agreement, except as have been disclosed to WCCI in writing. Paratek has the requisite right under the Tufts License Agreement to grant to WCCI a sublicense of Paratek’s rights under the Tufts License Agreement and to grant to WCCI the licenses under Section 7.3 of this Agreement with respect to all of the intellectual property rights of Tufts licensed to Paratek pursuant to the Tufts License Agreement.

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11.2.4 Litigation. As of the Effective Date, there is no litigation pending or, to the knowledge of Paratek, threatened, against Paratek with respect to Paratek Patent Rights existing as of the Effective Date.

11.3 Additional Representations and Warranties of WCCI. WCCI represents and warrants to Paratek as follows:

11.3.1 No Infringement. As of the Effective Date, to the knowledge of WCCI, the use of WCCI Technology in connection with the Backup Compound Research Program and in the manner contemplated under this Agreement does not infringe the intellectual property rights of any Third Party.

11.3.2 Litigation. As of the Effective Date, there is no litigation pending or, to the knowledge of WCCI, threatened, against WCCI with respect to WCCI Patent Rights existing as of the Effective Date that WCCI uses in the conduct of the Development.

ARTICLE 12: INDEMNIFICATION

12.1 Indemnification of WCCI by Paratek. Subject to the provisions of this Article 12, Paratek shall indemnify, defend and hold harmless WCCI and its Affiliates and their respective directors, officers, employees, and agents and their respective successors, heirs and assigns (the “WCCI Indemnitees”), against any liability, damage, loss or expense (including reasonable attorneys’ fees and expenses of litigation) (collectively, “Losses”) incurred by or imposed upon the WCCI Indemnitees, or any one of them, in connection with any claims, suits, actions, demands or judgments of Third Parties or Affiliates of Paratek, including without limitation personal injury and product liability matters and claims of suppliers and Paratek employees (except in cases where such claims, suits, actions, demands or judgments result from a breach of this Agreement, or negligence or willful misconduct, on the part of WCCI or its Affiliates or any of their respective employees, agents, contractors and sublicensees) arising out of (a) any actions of Paratek or its Affiliates or any of their respective employees, agents, contractors and sublicensees in the performance of the Backup Compound Research Program or the Development Plan, (b) the breach of any representation or warranty of Paratek under Article 11 hereof, or (c) the breach of any covenant, agreement or obligation of Paratek under this Agreement.

12.2 Indemnification of Paratek by WCCI. Subject to the provisions of this Article 12, WCCI shall indemnify, defend and hold harmless Paratek and its Affiliates and their respective directors, officers, employees, agents, contractors and their respective successors, heirs and assigns (the “Paratek Indemnitees”), against any Losses incurred by or imposed upon the Paratek Indemnitees, or any one of them, in connection with any claims, suits, actions, demands or judgments of Third Parties or Affiliates of WCCI, including without limitation personal injury and product liability matters and claims of suppliers and WCCI employees (except in cases where such claims, suits, actions, demands or judgments result from a breach of

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this Agreement, or negligence or willful misconduct, on the part of Paratek or its Affiliates or any of their respective employees, agents, contractors and sublicensees), arising out of (a) any actions of WCCI or its Affiliates or any of their respective employees, agents, contractors and sublicensees in the performance of the Backup Compound Research Program or the Development or Commercialization of Lead Candidates or Products, (b) the breach of any representation or warranty of WCCI under Article 11 hereof, (c) the breach of any covenant, agreement or obligation of WCCI under this Agreement, (d) the development, testing, manufacture, promotion, import, Commercialization or use by WCCI or any of its Affiliates or sublicensees of any Product which is manufactured or sold by WCCI or by an Affiliate, Sublicensee, distributor or agent of WCCI (other than Paratek or its Affiliates, contractors, agents or sublicensees), or (e) the use of any Product referred to in the foregoing clause (d) by any end-user customer that acquires such Product directly or indirectly from WCCI or any Affiliate, Sublicensee, distributor or agent of WCCI (other than Paratek or its Affiliates, contractors, agents or sublicensees). Notwithstanding anything express or implied in the foregoing provisions of this Section 12.2, WCCI shall not indemnify any of the Paratek Indemnitees from any Losses incurred by or imposed upon the Paratek Indemnitees, or any one of them, in connection with any claims, suits, actions, demands or judgments of Third Parties or Affiliates of Paratek asserting that the use of the Paratek Technology or the practice of the licenses granted by Paratek under the Paratek Patent Rights and/or the Paratek Technology hereunder, or any portion thereof, infringe the Technology or intellectual property rights of Third Parties or Affiliates of Paratek.

12.3 Conditions to Indemnification. A Paratek Indemnitee or a WCCI Indemnitee, as applicable, seeking indemnification under this Article 12 (the “Indemnified Party”) shall give prompt notice of the claim to the WCCI or Paratek as the applicable indemnifying party (the “Indemnifying Party”). Provided that the Indemnifying Party is not contesting the indemnity obligation, the Indemnified Party shall (a) permit the Indemnifying Party to control and dispose of any such claims, actions, suits or demands relating to such claim (except for claims, actions, suits or demands subject to the provisions of Section 9.2.2 to the extent that Section 9.2.2 otherwise provides); provided, that, the Indemnifying Party shall act reasonably and in good faith with respect to all matters relating to the settlement or disposition of any claim as the settlement or disposition relates to Parties being indemnified under this Article 12 and provided, further, that the Indemnifying Party shall not settle or otherwise resolve any claim without prior notice to the Indemnified Party and the consent of the Indemnified Party (which consent shall not be unreasonably withheld, conditioned or delayed); and (b) cooperate with the Indemnifying Party in its defense of any claim for which indemnification is sought under this Article 12. The Indemnified Party shall have the right to participate in all legal proceedings, at the Indemnified Party’s sole cost and expense, giving rise to the right of indemnification.

12.4 Contribution. In the event that there is a claim from a Third Party against either or both Parties with respect to any matter as to which each Party has an indemnification obligation to the other Party pursuant to Section 12.1 or Section 12.2, as applicable, then, in lieu of the indemnification provisions of Section 12.1 and 12.2 hereof, either Party shall have a right of contribution against the other Party or both Parties shall have a right of contribution against each other such that the Losses incurred and suffered by both Parties and their respective

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Affiliates in connection with the matter that is subject to such Third Party claim are shared by both Parties in proportion to the degree of fault of the Parties and their respective Affiliates in causing or giving rise to such matter.

12.5 Warranty Disclaimer. EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY NOR SUCH PARTY’S AFFILIATES MAKES ANY WARRANTY WITH RESPECT TO ANY TECHNOLOGY, GOODS, SERVICES, RIGHTS OR OTHER SUBJECT MATTER OF THIS AGREEMENT AND HEREBY DISCLAIMS WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT WITH RESPECT TO ANY AND ALL OF THE FOREGOING.

12.6 Limited Liability. NOTWITHSTANDING ANYTHING TO THE CONTRARY IN THIS AGREEMENT, NEITHER PARATEK NOR WCCI WILL BE LIABLE WITH RESPECT TO ANY SUBJECT MATTER OF THIS AGREEMENT UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR (I) ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES OR LOST PROFITS OR (II) COST OF PROCUREMENT OF SUBSTITUTE GOODS, TECHNOLOGY OR SERVICES. FOR PURPOSES OF THIS SECTION 12.6, IT IS HEREBY UNDERSTOOD AND AGREED THAT ANY INDEMNIFICATION OR CONTRIBUTION CLAIM BY EITHER PARTY AGAINST THE OTHER PARTY UNDER SECTION 12.1, SECTION 12.2 OR SECTION 12.4, AS APPLICABLE, WITH RESPECT TO AMOUNTS OWED, PAID OR REQUIRED TO BE PAID BY AN INDEMNIFIED PARTY TO A THIRD PARTY SHALL NOT BE LIMITED BY VIRTUE OF THIS SECTION 12.6.

12.7 Tufts Disclaimer. EACH OF THE PARTIES ACKNOWLEDGES THAT TUFTS MAKES NO REPRESENTATIONS, EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED (INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PURPOSE), AND ASSUMES NO RESPONSIBILITIES WHATSOEVER, WITH RESPECT TO THE PATENTS OR TECHNOLOGY OR THE USE THEREOF, OR THE MANUFACTURE, POSSESSION, USE, MARKETING, SALE, OR OTHER DISPOSITION BY TUFTS, THE PARTIES, OR ANYONE ELSE, OF LICENSED PRODUCT(S) OR ANY OTHER PRODUCTS OF SERVICES (INCLUDING, WITHOUT LIMITATION, PRODUCTS MADE BY TUFTS, AND TUFTS SERVICES, THAT ARE OR WERE FURNISHED TO A PARTY AT ANY TIME BEFORE, ON, OR AFTER THE EFFECTIVE DATE), EXCEPT ONLY AS EXPRESSLY STATED BELOW IN THIS SECTION 12.7. Without limitation of the foregoing generality, nothing contained herein or in any disclosure of the Patents or Technology (as the terms “Patent Rights” and “Technology” are defined in the Tufts License Agreement) made by or on behalf of Tufts shall be construed as extending any representation or warranty with respect to the Patents or Technology or Products or the results to be obtained by the use of the Patents or Technology or any Products, or that anything made, used, or sold by use of the Patents or Technology or any part thereof, alone or in combination, will be free from infringement of patents of third parties. TUFTS SHALL NOT BE LIABLE TO EITHER PARTY, ITS SUBSIDIARIES, ITS SUBLICENSEES, OR ANY OTHER PARTY, REGARDLESS OF THE FORM OR THEORY OF ACTION (WHETHER CONTRACT, TORT, INCLUDING NEGLIGENCE, STRICT

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LIABILITY, OR OTHERWISE), FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR OTHER EXTRAORDINARY DAMAGES ARISING OUT OF OR RELATED TO THIS AGREEMENT, PATENTS, THE TECHNOLOGY, THE PRODUCTS, OR ANY PRODUCTS OR SERVICES FURNISHED OR NOT FURNISHED BY TUFTS, EVEN IF TUFTS HAS BEEN ADVISED OF THE POSSIBILITY THEREOF.

12.8 Insurance

12.8.1 Clinical Trial Liability. Paratek and WCCI hereby agree that, if required in order for Paratek to comply with its obligations under the Tufts License Agreement, not later than thirty (30) days prior to WCCI’s commencement of any human clinical trial, if at all, of a Product and at all times thereafter until the expiration of all applicable statutes of limitation pertaining to such trial (whether same occurs or exists during or after the existence of the Tufts License Agreement or during or after the License Period as defined in the Tufts License Agreement), WCCI will, at its own expense, obtain and maintain in full force and effect an insurance program consisting of a combination of a self-insurance and third party insurance coverage as further described below, protecting WCCI, Tufts and Paratek against all claims, suits, obligations, liabilities and damages, based upon or arising out of actual or alleged bodily injury, personal injury, death or any other damage to or loss of persons or property caused by WCCI’s activities in the conduct of such clinical trial. WCCI’s third party insurance coverage portion of such insurance program shall consist of a comprehensive general liability insurance policy or policies that include coverage of clinical trial liability. Such insurance policy or policies shall be issued by companies rated by A. M. Best as A VIII or better (or other companies acceptable to Tufts), shall name each of Tufts and Paratek as additional named insured, shall provide for a limit of 

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described below protecting WCCI and Tufts against all claims, suits, obligations, liabilities and damages, based upon or arising out of actual or alleged bodily injury, personal injury, death or any other damage to or loss of persons or property caused by any such manufacture, marketing, possession, use, sale, or other disposition. WCCI’s third party insurance coverage portion of such insurance program, shall consist of a comprehensive general liability insurance policy or policies that include coverage of product liability. Such insurance coverage shall consist of a comprehensive general liability insurance policy or policies that include coverage of product liability. Such insurance policy or policies shall be issued by companies rated by A. M. Best as A VIII or better (or other companies acceptable to Tufts), shall name Tufts as an additional named insured, shall have limits of [***] dollars ($[***]) in the aggregate for all covered claims, shall be non-cancelable except upon thirty (30) days prior written notice to Tufts, and shall provide that as to any loss covered thereby and also by any policies obtained by Tufts itself, WCCI’s policies shall provide primary coverage for Tufts and Tufts’ policies shall be considered excess coverage for Tufts.

ARTICLE 13: DISPUTE RESOLUTION

13.1 Dispute Resolution

13.1.1 Escalation to Executive Officers. In the event of any dispute arising between the Parties in connection with this Agreement, the construction thereof, or the rights, duties or liabilities of either Party and such Party’s Affiliates, then such dispute shall be escalated to the respective Executive Officers of the Parties for resolution. If the Executive Officers cannot resolve such dispute within thirty (30) days, then, except as otherwise set forth herein, such dispute shall be resolved by binding arbitration as set forth in Section 13.1.2 below.

13.1.2 Arbitration. Binding arbitration shall occur under the then current Rules for Non-Administered Arbitration and supervision of the American Arbitration Association (the "AAA"), except as otherwise provided herein. If the dispute involves a claim for money in the amount of $[***] ([***] dollars) or less and does not involve any claims relating to ownership, use, or disclosure of intellectual property (other than a claim of unlawful ownership, use or disclosure of intellectual property arising solely from a failure to pay a license fee or royalty), the arbitration shall be before a single neutral arbitrator whom WCCI and Paratek shall select from a panel of persons knowledgeable in the field of drug and pharmaceuticals development and distribution; otherwise, the arbitration shall be before three arbitrators, one selected by WCCI, one selected by Paratek, and the third selected by the two arbitrators selected. Within thirty (30) days after initiation of arbitration, each Party shall select one person to act as arbitrator and the two Party-selected arbitrators shall select a third arbitrator within thirty (30) days of their appointment. If the arbitrators selected by the Parties are unable or fail to agree upon the third arbitrator, the third arbitrator shall be appointed by the AAA. In the event the arbitrators seek the guidance of the law of any jurisdiction, the laws of the State of New York shall govern. All arbitration proceedings will take place in New York, New York. Either Party may apply to the arbitrators for interim injunctive relief until the arbitration decision is rendered or the dispute is otherwise resolved. Either Party also may, without waiving any right or remedy under this Agreement, seek from any court having jurisdiction any injunctive or provisional relief necessary to protect the rights or property of that Party pending resolution of the dispute pursuant to this

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Section 13.1.2. The arbitrator or arbitrators shall not have the power to award punitive or exemplary damages. The decision and award of the arbitrator or arbitrators shall be final and binding and the award rendered may be entered in any court having jurisdiction. WCCI and Paratek shall each pay its own attorney’s fees associated with the arbitration, and shall pay the other costs and expenses of the arbitration as the rules of the AAA provide. The arbitrators shall make their decision known to both Parties as quickly as possible by delivering written notice of their decision to both Parties. The Parties shall agree in writing to comply with the proposal selected by the arbitration panel within five (5) days of receipt of notice of such selection. The decision of the arbitrators shall be final and binding on the Parties, and specific performance may be ordered by any court of competent jurisdiction. Notwithstanding the provisions of Section 13.1.1 hereof or this 13.1.2, Paratek and WCCI may each petition a court of law for injunctive relief to protect its respective intellectual property or confidential information.

ARTICLE 14: MISCELLANEOUS

14.1 Notices. All notices and communications shall be in writing mailed via certified mail, return receipt requested, courier, or facsimile transmission addressed as follows, or to such other address as may be designated from time to time:

If to WCCI:

Warner Chilcott Company Inc.
PO Box 1005
Fajardo, Puerto Rico 00738
Attn: Director, Business Management
Fax: (787) 863 5355

With a copy to:

Warner Chilcott (US), Inc.
100 Enterprise Dr.
Rockaway, NJ 07866
Attn: General Counsel
Fax: (973) 443 3310

If to Paratek:

Paratek Pharmaceuticals, Inc.
75 Kneeland Street
Boston, MA 02111
Attn: Chief Executive Officer
Fax: (617) 275-0039

With a copy to:

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, PC
One Financial Center
Boston, Massachusetts 02111
Attention: Jeffrey M. Wiesen, Esq.
Tel: (617) 542-6000
Fax: (617) 542-2241

Except as otherwise expressly provided in this Agreement or in writing by both Parties, any notice, communication or payment required to be given or made shall be deemed given or made and effective (i) when delivered personally; (ii) when delivered by telex or telecopy (if not a payment); or (iii) when received if sent by overnight express or mailed by certified, registered or regular mail, postage prepaid, addressed to parties at their address stated above, or to such other address as such Party may designate by written notice in accordance with the provisions of this Section 14.1.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
14.2 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of New York, without regard to the application of principles of conflicts of law.

14.3 Binding Effect. This Agreement shall be binding upon and inure to the benefit of the Parties and their respective legal representatives, successors and permitted assigns.

14.4 Headings. Article, section and subsection headings are inserted for convenience of reference only and do not form a part of this Agreement.

14.5 Counterparts. This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original.

14.6 Amendment; Waiver. Except as otherwise expressly provided in this Agreement in connection with the amendment, modification or updating from time to time of certain Exhibits and Schedules to this Agreement, this Agreement may be amended, modified, superseded or cancelled, and any of the terms may be waived, only by a written instrument executed by each Party or, in the case of waiver, by the Party or Parties waiving compliance. The delay or failure of any Party at any time or times to require performance of any provisions shall in no manner affect the rights at a later time to enforce the same. No waiver by any Party of any condition or of the breach of any term contained in this Agreement, whether by conduct, or otherwise, in any one or more instances, shall be deemed to be, or considered as, a further or continuing waiver of any such condition or of the breach of such term or any other term of this Agreement.

14.7 No Third Party Beneficiaries. Except as set forth in Sections 7.4 and 12.7 hereof with respect to Tufts and with respect to the WCCI Indemnities and the Paratek Indemnities, no Third Party, including any employee of any Party to this Agreement, shall have or acquire any rights by reason of this Agreement.

14.8 Purposes and Scope. Nothing in this Agreement shall be construed (a) to create or imply a general partnership between the Parties, (b) to make either Party the agent of the other for any purpose, (c) to alter, amend, supersede or vitiate any other arrangements between the Parties with respect to any subject matter not covered hereunder, (d) to give either Party the right to bind the other Party or such other Party’s Affiliates, (e) to create any duties or obligations between the Parties except as expressly set forth herein, or (f) to grant any direct or implied licenses or any other right other than as expressly set forth herein.

14.9 Assignment and Successors. Neither this Agreement nor any obligation of a Party hereunder may be assigned by either Party without the consent of the other which shall not be unreasonably withheld, except that each Party may assign this Agreement and the rights, obligations and interests of such Party, in whole or in part, (i) to any of its Affiliates or (ii) to any purchaser of all of its assets and/or all of its assets to which this Agreement relates or to any successor corporation resulting from any merger or consolidation of such Party with or into such corporation (an “Acquiror”); provided, however, that in the case of any Affiliate of a Party, such Affiliate shall be bound by all of the terms and provisions of this Agreement that apply to the

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rights or obligations assigned to such Affiliate, all to the same extent that the assigning Party is bound, and in the case of any such Acquiror, such Acquiror shall execute a written instrument for the benefit of the non-assigning Party agreeing to become bound by all of the terms and provisions of this Agreement to the same extent that the assigning or selling Party is bound. Whenever any provision of this Agreement expressly provides that any Affiliate of a Party shall be entitled to enjoy any right under this Agreement or shall be burdened or required to be burdened by any obligation under this Agreement, then such Affiliate or Affiliates of a Party shall be deemed and treated as permitted assignees of such Party with respect to such right, to the extent that such Affiliate or Affiliates shall actually exercise such right, and shall be deemed and treated as permitted assignees of such Party with respect to such obligation, in either case without any assignment or assumption agreement or any other act being required to be taken by such Party or such Affiliate or Affiliates to evidence the assignment of such right or obligation, as the case may be. Each Party shall be responsible and liable to the other Party for any failure by any Affiliate of such Party to perform any obligation that is expressly provided by the terms of this Agreement to be performed by such Affiliate. Any permitted assignment under this Section 14.9 shall not operate as a release or discharge of any obligations of the assigning Party under this Agreement, and each Party shall be responsible and liable to the other Party for any failure by any permitted assignee of such Party to perform any obligation under this Agreement that has been assigned or deemed to be assigned by such Party to such permitted assignee. Nothing in this Section 14.9 shall be construed to limit in any way the right to grant sublicenses in accordance with the provisions of Section 7.3.4 hereof.

14.10 **Force Majeure.** Neither WCCI nor Paratek shall be liable for failure of or delay in performing obligations set forth in this Agreement, and neither shall be deemed in breach of its obligations, if such failure or delay is due to a Force Majeure. In event of such Force Majeure event, the Party affected thereby shall use reasonable efforts to cure or overcome the same and resume performance of its obligations hereunder.

14.11 **Interpretation.** The Parties hereto acknowledge and agree that: (a) each Party and its counsel reviewed and negotiated the terms and provisions of this Agreement and have contributed to its revision; (b) the rule of construction to the effect that any ambiguities are resolved against the drafting Party shall not be employed in the interpretation of this Agreement; and (c) the terms and provisions of this Agreement shall be construed fairly as to both Parties and their respective Affiliates and not in a favor of or against either Party or such Party’s Affiliates, regardless of which Party was generally responsible for the preparation of this Agreement.

14.12 **Integration; Severability.** This Agreement is the sole agreement with respect to the subject matter hereof and supersedes all other agreements and understandings between the Parties with respect to the same. In the event any one or more of the provisions contained in this Agreement should be held invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby, unless the absence of the invalidated provision(s) adversely affect the substantive rights of the Parties. The Parties shall in such an instance use their best efforts to replace the invalid, illegal or unenforceable provision(s) with valid, legal and enforceable provision(s) that, insofar as practical, implement the purposes of this Agreement.

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14.13 **Further Assurances.** Each of Paratek and WCCI agrees to duly execute and deliver, or cause to be duly executed and delivered, such further instruments and do and cause to be done such further acts and things, including, without limitation, the filing of such additional assignments, agreements, documents and instruments, that may be necessary or as the other Party hereto may at any time and from time to time reasonably request in connection with this Agreement or to carry out more effectively the provisions and purposes of, or to better assure and confirm unto such other Party its rights and remedies under, this Agreement.

[Remainder of page intentionally left blank.]

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IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives.

PARATEK PHARMACEUTICALS, INC.

By: /s/ Thomas J. Bigger
Name: Thomas J. Bigger
Title: President and CEO

WARNER CHILCOTT COMPANY, INC.

By: /s/ Anthony D. Bruno
Name: Anthony D. Bruno
Title: Executive Vice President

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Development Plan

Exhibit A-1

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Tufts License Agreement

[See Exhibit 10.18 filed herewith]

Exhibit B-1

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Backup Compound List

Schedule 2-1

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Joint Press Release

Schedule 3-1

Portions of this Exhibit, indicated by the mark "[***]," were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
Warner Chilcott and Paratek Pharmaceuticals Sign Collaboration Agreement for Novel, Narrow-Spectrum Agents for Acne and Rosacea

FAJARDO, Puerto Rico and BOSTON, Mass., July 9, 2007 - Warner Chilcott Company, Inc. and Paratek Pharmaceuticals, Inc. announced today that the two companies have entered into an exclusive license agreement for the development and commercialization of novel, narrow-spectrum tetracyclines for the treatment of acne and rosacea.

Tetracycline antibiotics are the leading approved systemic treatments of moderate to severe inflammatory acne. Discovered decades ago as broad-spectrum systemic antibiotics, tetracyclines have been shown to be potent anti-acne agents. Paratek has utilized its expertise in chemistry to develop novel narrow-spectrum antibacterial tetracyclines with improved anti-inflammatory activity, tolerability and other properties for the next generation treatment of acne and rosacea. These compounds represent the first tetracycline-derived new molecular entities ever to be synthesized specifically as improved therapeutics for dermatologic diseases.

“We look forward to a productive collaboration with Paratek as we work together to progress Paratek’s novel tetracycline products through the development process and into commercialization” said Roger Boissonneault, Chief Executive Officer and President of Warner Chilcott.

“We are pleased to announce our collaboration with Warner Chilcott, a proven leader in the development and commercialization of dermatology products,” said Stuart B. Levy, M.D., Co-founder and Chief Scientific Officer of Paratek Pharmaceuticals. “For years, dermatologists have sought therapies with a more targeted spectrum of activity. While effective, currently marketed tetracyclines possess antibacterial activity against a broad number of organisms not associated with acne or rosacea, which can lead to adverse consequences such as resistance development among life-threatening bacteria and persistent side effects. Paratek’s proprietary compounds have been designed to circumvent these issues by better targeting the causative bacteria and retaining potent anti-inflammatory properties.”

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.
Under the terms of the agreement, Warner Chilcott will assume responsibility for clinical development of the tetracycline derivative products and will have exclusive rights to market the products in the United States. Paratek received an up-front payment and will be eligible to receive additional payments upon achievement of certain development and regulatory approval milestones. Warner Chilcott will pay a royalty to Paratek on sales of any product under the agreement.

The leading candidate under the agreement is in preclinical development and expected to enter clinical development in 2008.

Warner Chilcott Company Inc. is a subsidiary of Warner Chilcott Limited (Nasdaq: WCRX).

### About Warner Chilcott

Warner Chilcott is a specialty pharmaceutical company focused on developing, manufacturing, marketing and selling branded prescription pharmaceutical products in women’s healthcare and dermatology in the United States.

Read more on www.warnerchilcott.com.

### About Paratek Pharmaceuticals

Paratek Pharmaceuticals, Inc. is engaged in the discovery and commercialization of new therapeutics that treat serious and life-threatening diseases, with a particular focus on the growing worldwide problem of antibiotic resistance. Paratek is advancing novel compounds that can circumvent or block bacterial resistance involving technology initially developed by Paratek co-founder Dr. Stuart Levy's laboratory at Tufts University School of Medicine, and licensed by Paratek. In addition to its tetracycline-derived antibacterials, Paratek is developing small molecule drugs that can prevent infection by interfering with Multiple Adaptational Response (MAR) mechanisms in bacteria.

Outside the antibacterial therapeutic area, Paratek has also established an effort to exploit its novel tetracycline derivatives and their unique mechanism of action in selected anti-inflammatory and neurodegenerative conditions. Paratek has an active chemical synthesis effort to produce novel and diverse small molecules, with the goal of developing non-antibacterial compounds with improved activity in serious inflammatory and neurodegenerative diseases based upon a growing body of clinical and basic research supporting this approach.

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Warner Chilcott’s Forward-Looking Statements

This press release contains forward-looking statements, including statements concerning our product development efforts. These statements constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. The words “may,” “might,” “will,” “should,” “estimate,” “project,” “plan,” “anticipate,” “expect,” “intend,” “outlook,” “believe” and other similar expressions are intended to identify forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates. These forward-looking statements are based on estimates and assumptions by our management that, although we believe to be reasonable, are inherently uncertain and subject to a number of risks and uncertainties.

The following represent some, but not necessarily all, of the factors that could cause actual results to differ from historical results or those anticipated or predicted by our forward-looking statements: our substantial indebtedness; competitive factors in the industry in which we operate; our ability to protect our intellectual property; a delay in qualifying our manufacturing facility to produce our products or production or regulatory problems with either third party manufacturers upon whom we rely for some of our products or our own manufacturing facility; pricing pressures from reimbursement policies of private managed care organizations and other third party payors, government sponsored health systems, the continued consolidation of the distribution network through which we sell our products, including wholesale drug distributors and the growth of large retail drug store chains; the loss of key senior management or scientific staff; an increase in litigation, including product liability claims and patent litigation; government regulation affecting the development, manufacture, marketing and sale of pharmaceutical products, including our ability and the ability of companies with whom we do business to obtain necessary regulatory approvals; our ability to successfully complete the implementation of a company-wide enterprise resource planning system without disrupting our operations; and the risks and uncertainties described elsewhere in this report.

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business; our ability to manage the growth of our business by successfully identifying, developing, acquiring or licensing and marketing new products, obtain regulatory approval and customer acceptance of those products, and continued customer acceptance of our existing products; and other risks detailed from
time-to-time in our annual report for 2006 filed with the Securities and Exchange Commission on Form 10-K, our financial statements and other investor communications.

We caution you that the foregoing list of important factors is not exclusive. In addition, in light of these risks and uncertainties, the matters referred to in our forward-looking statements may not occur. We undertake no obligation to publicly update or revise any forward-looking statement as a result of new information, future events or otherwise, except as may be required by law.

# # #

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Paratek Pharmaceuticals, Inc.
Kate Boxmeyer
Director of Finance
+1-617-275-0040 ext. 238
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TUFTS UNIVERSITY LICENSE AGREEMENT

This Agreement is made and entered into as of February 1, 1997 (“the Effective Date”), by and between Paratek Pharmaceuticals, Inc., a Delaware corporation having an address of P.O. Box 1525, Boston, Massachusetts 02117-1525 (“Licensee”) and Tufts University, a/k/a Trustees of Tufts College, a corporation duly organized and existing under the laws of the Commonwealth of Massachusetts and having a principal office at Medford, Massachusetts 02155 (“Tufts”).

WHEREAS, Tufts possesses certain know-how, inventions and intellectual property in the field of drug resistance;

WHEREAS, Tufts, acting through Dr. Stuart Levy, (the “Principal Investigator”) wishes to and is prepared to conduct additional research in this field under a Sponsored Research Agreement of even date herewith;

WHEREAS, Licensee is prepared to provide support to Tufts for such research by the Principal Investigator, providing it receives certain license rights under inventions, biological materials, and/or know-how developed in the research under the terms of this License Agreement; and

WHEREAS, Tufts wishes to have such inventions, biological materials, and/or know-how perfected and marketed in order that products resulting therefrom might be available for public use and benefit.

NOW THEREFORE, for valuable consideration, the receipt and adequacy of which are hereby acknowledged, and intending to be legally bound, the parties hereto mutually agree as follows:

ARTICLE I - DEFINITIONS

1.1. “Patent Rights” shall mean rights owned or controlled by Tufts which arise under United States or foreign patents or patent applications as described in Exhibit A or any patents issuing from said applications that cover inventions which were discovered or developed at Tufts by Dr. Stuart Levy, alone or in conjunction with others, or which are discovered or developed in the Field of Use pursuant to the Sponsored Research Agreement of even date herewith (the “Research Agreement”), including any divisions, continuations, continuations-in-part, re-examinations, extensions, renewals, or reissues thereof.

1.2. “Technology” shall mean the trade secret, know-how, and other proprietary, non-public information relating to the “Field of Use” and necessary or useful for practicing the Patent Rights that was discovered or developed at Tufts by Dr. Stuart Levy, alone or in

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
1.3. “Confidential Technology” shall mean all Technology, and all information in or concerning patent applications included in the Patents, provided, however, that Licensee need not keep confidential any information that:

(a) at the date of its disclosure by Tufts to Licensee was known to Licensee as documented in Licensee’s files and is revealed to Tufts within thirty (30) days after Tufts’ disclosure to Licensee; or

(b) at the date of disclosure by Tufts to Licensee was, or thereafter becomes, through no fault of Licensee, publicly known through publication or so widely known and used that it can be said to be generally available to the public.

1.4. “Field of Use” shall mean the prophylaxis, treatment or prevention of bacterial or microbial diseases or medical conditions in humans or animals or agriculture using (i) tetracycline derivatives or other compounds which affect tetracycline resistance or (ii) compounds based on knowledge of the MAR operon or (iii) compounds involving novel genes which affect antibiotic resistance or microbial infectivity and which are derived from studies of the MAR operon or (iv) compounds that affect any such genes.

1.5. “License Period” shall mean collectively the respective periods commencing on the Effective Date and ending (unless sooner terminated) upon the later of the expiration of the last to expire of the Patent Rights (treating pending applications as issued patents for so long as they are pending) and fifteen (15) years from the Effective Date.

1.6. “Licensed Products” shall mean all products that are within or made by a process within the Field of Use and that embody or are made in accordance with or using or are based upon or derived from any aspect of the Patent Rights or the Technology.

1.7. “Gross Sales” shall mean the gross sales of Licensed Products subject to royalty under this Agreement billed to customers by Licensee and its Subsidiaries, less the following:

(a) [***];

(b) [***]; and

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Gross Sales shall also include and be deemed to have been made with respect to any Licensed Products used by Licensee or any Subsidiary, for its own commercial purposes, or transferred to any third-party for less than the transferee is then charging in normal arms-length sales transactions; and Gross Sales in all such cases shall be deemed to have been made at the prices therefor at which such Licensed Products are then being sold to the customers of such user or transferor (or of Licensee, if a Subsidiary is a user but not a seller) in arms-length sales transactions.

In the event that a Licensed Product under this Agreement is sold in combination with another active ingredient or component having independent therapeutic effect or diagnostic utility, then “Gross Sales,” for purposes of determining royalty payments on the combination, shall be calculated using one of the following methods:

(e) By multiplying the Gross Sales of the combination by the fraction A/(A+B), where A is the gross selling price, during the royalty paying period in question, of the Licensed Product sold separately, and B is the gross selling price, during the royalty period in question, of the other active ingredients or components sold separately; or

(f) In the event that no such separate sales are made of the Licensed Product or any of the active ingredients or components in such combination package during the royalty paying period in question, Gross Sales, for the purposes of determining royalty payments, shall be calculated using the above formula where A is the reasonably estimated commercial value of the Licensed Product sold separately and B is the reasonably estimated commercial value of the other active ingredients or components sold separately. Any such estimates shall be made in good faith by Licensee and reported to Tufts with the reports to be provided to Tufts pursuant to Section 3.7 hereof.

1.8. “Subsidiary” shall mean any corporation, partnership, or other business organization that directly or indirectly controls, is controlled by, or is under common control with Licensee. For the purpose of this Agreement, “control” shall mean the holding directly or indirectly of fifty percent (50%) or more of the voting stock or other ownership interest of the corporation or other business organization invoiced.

1.9. “Territory” shall mean the world.

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3
ARTICLE II - GRANT; SUBLICENSEES.

2.1. **Grant.** Subject to the terms and conditions hereinafter set forth, Tufts hereby grants to Licensee, to the extent that it lawfully may, a royalty-bearing, exclusive license to practice the Patent Rights and use the Technology in the Territory, only for the purpose of developing, making, using, and selling Licensed Products (the "License"). The License shall exist as such an exclusive, royalty-bearing license during and will terminate as such at the end of the License Period, unless sooner terminated as hereinafter provided. If the License does not terminate before the end of the License Period, then the License to use the Technology shall continue in effect thereafter without limitation of time as an exclusive, fully-paid-up license subject to termination only as provided in Article IX.

2.2. **Reserved Rights.** During the License Period, Tufts shall have no right to use the Patent Rights or Technology to make, use, or sell Licensed Products for commercial purposes, but Tufts reserves to itself (a) the right at all times to practice the Patent Rights and to use the Technology, and to make and use Licensed Products for research purposes within Tufts, and (b) all other rights not granted to Licensee, including the rights to use and permit the use of Patent Rights and Technology for any purpose not in conflict with the provisions of the License.

2.3. **Sublicenses.** Licensee shall also have the right to grant to its Subsidiaries or other sublicensees, exclusive or non-exclusive sublicenses under the License during the License Period; provided, however, and Licensee agrees that:

(a) the terms and conditions of each sublicense shall be consistent with the terms and conditions of this Agreement and shall contain, among other things (by way of example but not limitation), provisions substantially similar to and consistent with: the “Gross Sales” definition; Article III (providing, among other things, that royalties shall be paid to Licensee in amounts at least equal to those of Article III hereof, so that Licensee may in turn pay those royalties to Tufts); Article V; Section 7.1 (so that no representations or warranties inconsistent with that Article shall be extended to or by any sublicensee); Article IX, but the sublicense must terminate not later than the end of the License Period, or earlier if the License terminates earlier for any reason; Article XI; and Article XII.

(b) each sublicense shall provide that the obligations to Tufts of Sections 3.8, 3.9, 3.10, 7.1, 8.1, 8.5, and 9.2, and Articles V, XI, and XII of this Agreement shall be binding on the sublicensee and be enforceable both by Tufts and the Licensee.

(c) if a proposed sublicensee is either (i) a Subsidiary or (ii) a company engaged in the development, manufacture or distribution of health care products with a net worth or market capitalization of at least $50 million, no approval of Tufts shall be required for the proposed sublicense: in all other cases, the sublicense may not be granted without Tufts’ prior written approval (which may not be unreasonably withheld or delayed);

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
(d) Licensee shall furnish to Tufts a true and complete copy of each sublicense agreement and each amendment thereto, promptly after the sublicense or amendment has been agreed upon;

(e) no Subsidiary or other sublicensee shall have the right to further license, sublicense, or assign its rights without the prior approval of Licensee; and

(f) no sublicense shall relieve Licensee of any of its obligations hereunder, and Licensee shall be responsible for the acts or omissions of its Subsidiaries and sublicensees and for compliance by them with their obligations, and Licensee shall take all steps necessary to enforce that compliance to the extent required to allow Licensee to fully comply with all of its obligations under this agreement.

2.4 During the term of this Agreement and so long as neither Licensee nor any Subsidiary or sublicensee is in default with respect to any payment due to Tufts hereunder, Tufts will not assert its rights under any Patent Rights to prevent any party from using or selling any quantity of Licensed Product on which a royalty has been paid hereunder.

### ARTICLE III - PAYMENTS; RECORDS

3.1. **License Fee.** As partial consideration for the licenses granted hereunder, Licensee agrees to issue to Tufts and its designees, within thirty (30) days of the Effective Date, 500,000 shares of Licensee’s Common Stock, par value $0.001 per share, pursuant to the terms of a Stock Subscription and Right of First Refusal Agreement.

3.2. **Milestone Payments.** Licensee agrees to pay to Tufts the following nonrefundable milestone payments:

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<thead>
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<th>Milestone</th>
<th>Payment Amount</th>
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<td>Commencement of First Phase III</td>
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<tr>
<td>Clinical Trials in The United States</td>
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3.3. **Minimum Royalties.** Licensee agrees to pay to Tufts a minimum royalty payment of Twenty-Five Thousand Dollars ($25,000) in each twelve-month period commencing on each anniversary of the Effective Date if during such period Licensee is not sponsoring at least One Hundred Thousand Dollars ($100,000) in research at Tufts. Minimum royalty payments shall be creditable against royalties due under Section 3.4 during the same twelve-month period.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
3.4. **Running Royalties.** Licensee agrees to pay to Tufts royalties of:

(a) [***] percent ([***]%) of the Gross Sales of Licensed Products, the making, using, or selling of which infringes (were it not for the License) at least one claim in an issued, unexpired and non-lapsed patent included in the Patent Rights; or

(b) [***] percent ([***]%) of the Gross Sales of Licensed Products that do not fall within the clause (a), above, but the manufacture, use or sale of which would infringe (were it not for the License) at least one claim in a pending application included in the Patent Rights, if such claim were to issue.

3.5. **Sublicense Royalties.** For each sublicense granted by Licensee, Licensee shall pay to Tufts (a) [***] percent ([***]%) of that portion of any sublicense issue fees or license maintenance fees received by Licensee which are reasonably attributable to sublicenses of rights granted to Licensee hereunder, and (b) the lesser of (i) [***] percent ([***]%) of any royalty payments received under such sublicense with respect to the Gross Sales by the sublicensee of Licensed Products covered by a claim contained in an issued Patent Right or a claim included in a pending application covering a Patent Right on a country-by-country basis or (ii) the royalty which would be due if Licensee, rather than the sublicensee, had sold the Licensed Product. Funds received by Licensee from a sublicensee for research conducted by Licensee, achievement of product development-related performance milestones, or for equity investments in Licensee will not be subject to any royalties hereunder.

3.6. **Royalty Reductions.** In the event Licensee or a sublicensee of Licensee incurs expenses in judicial or administrative proceedings based upon allegations of infringement by Licensee or sublicensee of third-party patents or know-how solely or primarily as a result of the sale of Licensed Products, Licensee may withhold up to [***] percent ([***]%) of the royalties due hereunder for the calendar year in which the expenses are incurred, and apply the same toward reimbursement of its expenses in connection therewith.

3.7. **Statements; Payments.** After the first commercial sale of a Licensed Product, Licensee shall, within sixty (60) days after the last days of March, June, September, and December in each year or portion thereof during the License Period, and within sixty (60) days after the end of the License Period, provide Tufts with a statement accounting for the Gross Sales of Licensed Products by Licensee, its Subsidiaries, and its sublicensees and all amounts described in Section 3.5, all for the immediately preceding three (3) month period or portion thereof, accompanied by payment for the full amount of royalties due under this Article III for that period or portion thereof. Each such statement shall be certified by the Chief Financial Officer of Licensee as being true, correct, and complete.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
3.8. Currencies. All payments to be paid to Tufts shall be computed and made in United States Dollars, and Licensee shall use best efforts to convert royalty payments payable on Gross Sales in any country to United States Dollars; provided, however, that if conversion to and transfer of such Dollars cannot be made by Licensee, its Subsidiaries, or its sublicensees in any country for any reason, Licensee may pay such sums in the currency of the country in which such Gross Sales are made, deposited in Tufts’ name in a bank designated by Tufts in any such country. The rate of exchange of local currencies to U.S. Dollars shall be at the rate of exchange prevailing at the Bank of Boston (or such other bank in Boston, Massachusetts or New York, New York as Tufts may designate in writing from time to time), for currencies of the amounts involved, as such rate is stated for the first business day after the end of the period with respect to which the royalties are due.

3.9. Records; Audits. Licensee shall keep (and cause to be kept) and maintain complete and accurate records of Gross Sales of the Licensed Products by Licensee, its Subsidiaries, and its sublicensees, in accordance with generally accepted accounting procedures. Such records shall be accessible to independent certified public accountants selected by Tufts and reasonably acceptable to Licensee, by audits conducted not more than once a year during the License Period and for one year after the termination thereof, at any reasonable times during business hours, for the purpose of verifying Gross Sales and any royalties due thereon. Such accountants shall disclose to Tufts only information relating to the accuracy of the records kept and the payments made, and shall be under a duty to keep confidential any other information obtained from such records. Licensee, its Subsidiaries, and its sublicensees shall not be required to retain such records for more than three (3) years after the close of any calendar quarter-year. No period shall be subject to audit under this Section more than once as to any entity being audited.

3.10. Substantial Underpayment. If any such audit reveals that the aggregate of royalties paid during any four consecutive calendar quarters was more than five percent (5%) less than the amount that should have been paid, then the reasonable expenses of the audit shall be borne by Licensee, which shall pay those expenses within thirty (30) days after demand therefore by Tufts accompanied by the accountants’ statement therefor.

ARTICLE IV - TECHNOLOGY DISCLOSURE; PATENT PROSECUTION.

4.1. Demonstration. Within ninety (90) days of the Effective Date, Tufts representative(s) having knowledge of the Technology and Patent Rights will disclose them to Licensee personnel generally competent in the Field of Use, at the premises of Tufts, or, if mutually agreed, at the premises of Licensee. Such disclosure shall be scheduled at the mutual convenience of Tufts and Licensee and shall be made in such ways as the parties mutually agree seems most likely to enable those Licensee personnel to learn the Technology and Patent Rights.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
4.2. **Written Disclosure.** Tufts may elect to prepare and furnish to Licensee one or more written descriptions of the Technology and Patent Rights or portions thereof. Licensee agrees to review the written descriptions promptly after receiving them and indicate in writing to Tufts whether there are any details or aspects with which Licensee does not concur. Absent a sufficiently detailed objection by Licensee, those written descriptions will be deemed binding on the parties for all purposes under this Agreement as to the description of the Technology and Patent Rights so described.

4.3. **Availability.** Tufts shall perform its obligations under Sections 4.1 and 4.2 for no additional consideration. Tufts shall not be obligated to devote any particular amount of time to the performance of those obligations as long as Tufts makes its knowledgeable personnel available to competent Licensee personnel as stated above, and devotes the amount of time reasonably required to teach the necessary Technology to those Licensee personnel. Licensee agrees to make those personnel available for instruction within the time period and otherwise as stated in Section 4.1.

4.4. **Patent Prosecution.** Commencing on the Effective Date, Licensee shall have the responsibility to apply for, seek prompt issuance of, and maintain while the License is in effect, the Patent Rights in the United States, in the foreign countries listed on Exhibit B hereto and in the foreign countries selected by Licensee and Licensee will keep Tufts informed of the foregoing on a current basis. Upon Tufts’ request, Licensee will file and prosecute patent applications corresponding to the Patent Rights in any one or more other countries, to the extent commercially reasonable. Tufts shall cooperate fully with Licensee and provide all such information and data and execute any documents reasonably required in order to allow Licensee to conduct such prosecution and Tufts shall have the opportunity to provide substantive review and comment on any such filing or prosecution. The choice of patent counsel shall be reasonably acceptable to Tufts.

4.5. **Patent Expenses.** Licensee shall pay all costs associated with the preparation, filing, prosecution, and maintenance of all patent applications filed and patents obtained, which are included in the Patent Rights.

4.6. **Abandonment.** In the event that Licensee desires to abandon any patent or patent application within the Patent Rights in any country, Licensee shall provide Tufts with reasonable prior written notice of such intended abandonment or decline of responsibility, and Tufts shall have the right, at its expense, to prepare, file, prosecute, and maintain the relevant Patent Rights. If Licensee decides to abandon an issued patent (and all filed applications therefor) throughout the world, or if Licensee determines not to file and prosecute in at least one country a patent application that Tufts has requested Licensee to file, then in any such event such patent and patent applications shall not thereafter be included in “Patent Rights”, and the non-public information included in (or that would be included in) such patent and applications shall not thereafter be included in “Technology”. If Licensee decides to abandon an issued patent (or a filed application therefor) in any country, or if Licensee declines to file

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and prosecute a patent application in a country as requested by Tufts herein, then in any such event each such country shall no longer be included in the “Territory” for purposes of the claims covered by the relevant patent or patent application or for purposes of the non-public information included in (or that would be included in) such patent or application.

ARTICLE V - CONFIDENTIALITY

5.1. Limitations on Use, Disclosure. Licensee agrees to treat as confidential, and to use and disclose only in furtherance of this Agreement, all Confidential Technology disclosed to it by Tufts. Licensee agrees that it will exercise every reasonable precaution to prevent the unauthorized disclosure of Confidential Technology by any of its directors, officers, employees, or agents to other parties, other than to Subsidiaries and to Licensee sublicensees. Any Confidential Technology disclosed to Subsidiaries or sublicensees shall be disclosed on the basis of and subject to the confidentiality provisions of this Agreement.

5.2. Cessation. Any information which is Confidential Technology at the date of disclosure thereof to Licensee shall cease to be Technology, and Licensee, its Subsidiaries, and its sublicensees shall be released from the provisions of Section 5.1 as to such information on the date when, through no act or omission on the part of Licensee, its Subsidiaries, or its sublicensees, such information becomes (a) publicly known by way of a single publication in which such Confidential Technology is disclosed in reasonable detail, (b) so widely known and used in combination that it can be said to be generally available to the public or (c) is subsequently rightfully obtained without restriction on use or disclosure from sources other than Tufts having no confidential obligation in favor of Tufts.

5.3. Time Limit. The provisions of this Article V shall continue to apply to any information which is Confidential Technology for so long as it shall remain such, notwithstanding any termination of this Agreement or the License or expiration of the License Period, provided, however, that the obligations of confidentiality under this Article shall in any event expire and cease to exist ten years from the Effective Date.

ARTICLE VI - DILIGENCE

Licensee agrees to use its best efforts to effect introduction of Licensed Products into the United States commercial market as soon as practical, consistent with sound and reasonable business practices and judgments. Prior to the first commercial sale of a Licensed Product, Licensee shall provide annual reports of such efforts to Tufts within sixty (60) days of each anniversary of the Effective Date. Tufts shall have the right, at any time after eighteen (18) months from the Effective Date, to terminate the License and Tufts’ obligations under this Agreement if Licensee, within ninety (90) days after written notice from Tufts of such intended termination, fails to provide written evidence that Licensee has commercialized or is actively attempting to commercialize Licensed Products. Evidence that Licensee has, within eighteen months after the Effective Date, (i) delivered to Tufts a business plan, (ii) taken all reasonable

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steps to prosecute and maintain the Patent Rights in accordance with the provisions of Section 4.4 hereof, (iii) made payment of all research support under the Sponsored Research Agreement between the parties of even date herewith and (iv) raised a total of $2 million through venture capital investors or strategic partners shall be deemed, in and of itself, a sufficient showing of such active attempts to commercialize Licensed Products during such period. Thereafter, evidence that Licensee has achieved the following milestones as scheduled below shall be deemed, in and of itself, a sufficient showing of such active attempts to commercialize Licensed Products through such date:

(i) raised a total of $5 million through venture capital investors or strategic partners within three (3) years of the Effective Date; and
(ii) filed an IND for a Licensed Product in the United States within five (5) years of the Effective Date.

Tufts shall not unreasonably withhold its assent to any revision of such milestones whenever requested in writing by Licensee and supported by evidence of technical difficulties or delays that the parties could not have reasonably avoided.

Notwithstanding the foregoing, Tufts shall have the right at any time after ten (10) years from the Effective Date to convert the License hereunder to non-exclusive if Licensee, its Subsidiaries, or its sublicensees have not by the time of such conversion sold Licensed Products into the United States market.

If at any time Licensee decides to discontinue all programs relating to the MAR operon or all programs relating to tetracycline derivatives, Licensee shall give notice of such intent to Tufts and Tufts shall have the option to terminate the License granted hereunder solely with respect to such discontinued programs on thirty days notice to Licensee. Upon any such termination, responsibility for the prosecution and maintenance of any Patent Rights on the discontinued programs shall revert to Tufts.

ARTICLE VII - REPRESENTATIONS, WARRANTIES, AND LIMITATIONS.

7.1 Tufts Disclaimer. TUFTS MAKES NO REPRESENTATIONS, EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED (INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PURPOSE), AND ASSUMES NO RESPONSIBILITIES WHATSOEVER, WITH RESPECT TO THE PATENTS OR TECHNOLOGY OR THE USE THEREOF, OR THE MANUFACTURE, POSSESSION, USE, MARKETING, SALE, OR OTHER DISPOSITION BY TUFTS, LICENSEE, OR ANYONE ELSE, OF LICENSED PRODUCT(S) OR ANY OTHER PRODUCTS OF SERVICES (INCLUDING, WITHOUT LIMITATION, PRODUCTS MADE BY TUFTS, AND TUFTS SERVICES, THAT ARE OR WERE FURNISHED TO LICENSEE AT ANY TIME BEFORE, ON, OR AFTER THE Effective

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Date), EXCEPT ONLY AS EXPRESSLY STATED BELOW IN THIS ARTICLE VII. Without limitation of the foregoing generality, nothing contained herein or in any disclosure of the Patents or Technology made by or on behalf of Tufts shall be construed as extending any representation or warranty with respect to the Patents or Technology or Licensed Products or the results to be obtained by the use of the Patents or Technology or any Licensed Products, or that anything made, used, or sold by use of the Patents or Technology or any part thereof, alone or in combination, will be free from infringement of patents of third parties. TUFTS SHALL NOT BE LIABLE TO LICENSEE, ITS SUBSIDIARIES, ITS SUBLICENSEES, OR ANY OTHER PARTY, REGARDLESS OF THE FORM OR THEORY OF ACTION (WHETHER CONTRACT, TORT, INCLUDING NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE), FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR OTHER EXTRAORDINARY DAMAGES ARISING OUT OF OR RELATED TO THIS AGREEMENT, PATENTS, THE TECHNOLOGY, THE LICENSED PRODUCTS, OR ANY PRODUCTS OR SERVICES FURNISHED OR NOT FURNISHED BY TUFTS, EVEN IF TUFTS HAS BEEN ADVISED OF THE POSSIBILITY THEREOF.

Licensee agrees that all warranties, if any, in connection with the sale or other disposition of any Licensed Products (or any products made by Tufts and furnished at any time to Licensee) by Licensee, its Subsidiaries, or its sublicensees will be made by them and will not directly or impliedly obligate Tufts.

7.2 Tufts Representations. Notwithstanding the first sentence of Section 7.1, Tufts:

(a) Represents that Tufts is a corporation organized and existing under the laws of the Commonwealth of Massachusetts and has the power and authority to enter into this Agreement.

(b) Represents that Tufts has taken all necessary action to authorize its execution and delivery of this Agreement by the representatives of Tufts who carried out such execution and delivery, and to authorize the performance by Tufts of its obligations hereunder.

(c) Represents that execution and delivery of this Agreement and its performance by Tufts will not result in any breach or violation of, or constitute a default under, any agreement, instrument, judgment, or order to which Tufts is a party or by which it is bound.

7.3. Licensee Representations. Licensee represents and warrants to Tufts that:

(a) Licensee is a corporation organized and existing under the laws of Delaware and has the power and authority to enter into this Agreement.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.

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(b) Licensee has taken all necessary action to authorize its execution and delivery of this Agreement by the representatives of Licensee who carried out such execution and delivery, and to authorize the performance by Licensee of its obligations hereunder.

c) Execution and delivery of this Agreement and its performance by Licensee will not result in any breach or violation of, or constitute a default under, any agreement, instrument, judgment, or order to which Licensee is a party or by which it is bound.

ARTICLE VIII - INDEMNITY; INSURANCE; INFRINGERS.

8.1. **Indemnity.** Licensee agrees to exonerate, indemnify, and hold harmless Tufts, its trustees, officers, employees, and agents, from all costs, expenses (including attorneys’ fees), interest, losses, obligations, liabilities, and damages paid or liability for which is incurred by any of said parties (“Losses”), and which arise out of or are in connection with or are for the purpose of avoiding any and all claims, demands, actions, causes of action, suits, appeals, and proceedings (“Claims”), all whether groundless or not, or the settlement thereof, based on any actual or alleged injuries, damages, or liability of any kind whatsoever (including, without limitation, personal injury, death, property damage, breach of warranty, or breach of contract) arising, directly or indirectly, out of any one or more of: any breach of Licensee of its representations, warranties, or agreements hereunder; or out of any manufacture, marketing, possession, use, sale, or other disposition of Licensed Products or products furnished by Tufts to Licensee in connection herewith or in connection with the Research Agreement (whether same occurs during or after the License or during or after the License Period) by Licensee, its Subsidiaries, its sublicensees, or anyone claiming by, through, or under any of them; or any acquisition, possession, disclosure, or use of the Patents or Technology, or any thereof, by Licensee, its Subsidiaries, its sublicensees, or anyone claiming by, through, or under any of them or the presence of Licensee’s or its Subsidiaries’ or sublicensee’s officers, agents, employees, invitees or property on Tufts’ premises.

8.2. **Defense; Settlement.** Licensee shall defend and control negotiation of settlement of any Claim, with counsel of Licensee’s choosing approved in advance by Tufts, which approval shall not be unreasonably withheld. Tufts agrees to cooperate fully in the defense of any Claim and may participate in the defense with counsel of Tufts’ choosing, such separate counsel to be at Tufts’ expense unless a conflict of interest exists between Licensee and Tufts with respect to the defense, in which case Tufts’ separate counsel shall be at Licensee’s expense. Any settlement by which Tufts would incur any obligation or liability, whether for the payment of money, the taking of any action, the refraining from any action, or otherwise, shall require the advance written consent of Tufts, which may be withheld in the sole discretion of Tufts without relieving Licensee of any of its indemnification or other obligations hereunder.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
8.3. **Insurance.** Not later than thirty (30) days before the time when Licensee, any Subsidiary, or any Licensee sublicensee shall, on a commercial basis, make, use, or sell any Licensed Products or any products furnished to Licensee by Tufts at any time (before, on or after the Effective Date) in connection herewith or in connection with the Research Agreement, and at all times thereafter until the expiration of all applicable statutes of limitation pertaining to any such manufacture, marketing, possession, use, sale or other disposition of any Licensed Products or the aforesaid products furnished by Tufts (whether same occurs or exists during or after the existence of the License or during or after the License Period), Licensee will at Licensee’s expense, obtain and maintain in full force and effect, comprehensive general liability insurance, including product liability insurance, protecting Tufts against all claims, suits, obligations, liabilities, and damages, based upon or arising out of actual or alleged bodily injury, personal injury, death, or any other damage to or loss of persons or property, caused by any such manufacture, marketing, possession, use, sale, or other disposition. Such insurance policy or policies shall be issued by companies rated by A. M. Best as A VIII or better (or other companies acceptable to Tufts), shall name Tufts as an additional named insured, shall have limits of at least one million dollars ($1,000,000) per occurrence with an aggregate of three million dollars ($3,000,000), shall be non-cancelable except upon thirty (30) days prior written notice to Tufts, and shall provide that as to any loss covered thereby and also by any policies obtained by Tufts itself, Licensee’s policies shall provide primary coverage for Tufts and Tufts’ policies shall be considered excess coverage for Tufts.

8.4. **Certificates: Policies.** Licensee will forthwith after the obtaining of such insurance required by Section 8.3, obtain and deliver to Tufts certificates of and copies of, and at all times thereafter deliver without further demand replacement certificates and copies of, all such insurance policies that are in force and effect. As requested by Tufts but in no event more than once per calendar year, Licensee will furnish to Tufts a complete list, statement, and description of all insurance called for in this Article, together with certificates and copies of policies for each insurance company issuing any thereof, that such insurance is in full force and effect, that all premiums have been paid, and that such insurance will not be canceled except upon thirty (30) days prior written notice to Tufts.

8.5. **Infringers.** Each party shall inform the other promptly in writing of any alleged infringement of the Patent Rights in the Field of Use by a third party, including all details then available. Licensee shall have the right, but shall not be obligated, to prosecute at its own expense any such infringements, and Tufts agrees that Licensee may join Tufts as a plaintiff at the expense of Licensee. In any infringement action commenced solely by Licensee, all expenses of Licensee shall first be reimbursed and all recovery for infringement shall be shared [***]% to Tufts and [***]% to Licensee. Licensee shall indemnify Tufts against any order for costs or other payments that may be made against Tufts in such proceedings.

If Licensee has not taken legal action or been successful in obtaining cessation of the infringement, within one-hundred eighty (180) days of written notification from Tufts of such infringement, or if Licensee elects not to continue prosecuting any legal action against an

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infringer, Tufts shall have the right, but shall not be obligated, to prosecute at its own expense any such infringement. Tufts may join Licensee as a plaintiff in any such infringement suit at Tufts’ expense. In any such action by Tufts, all expenses of Tufts shall first be reimbursed and all recovery for infringement shall be shared [***]% to Tufts and [***]% to Licensee.

No settlement, consent judgment or other voluntary final disposition of any suit may be entered into without the consents of Tufts and Licensee, which consents shall not be unreasonably withheld or delayed.

In any infringement suit that either party brings to enforce the Patent Rights, the other party shall at the request and expense of the party bringing the suit, cooperate in all reasonable respects, including, to the extent possible, obtaining the testimony of its employees and making available physical evidence in the possession of that party.

Licensee shall have the exclusive right in accordance with the provisions of Section 2.2, to sublicense any alleged infringer in the Territory for the Field of Use, for future use of the Patent Rights.

8.6 **Declaratory Judgment.** If any declaratory judgment action alleging invalidity or non-infringement of any of the Patent Rights shall be brought against Licensee, Tufts shall have the right at its election made within sixty (60) days after commencement of that action, to intervene and take over the sole defense of the action at its expense.

**ARTICLE IX - LICENSE TERMINATION.**

9.1. **Events.** The License granted hereunder may be terminated by Tufts pursuant to Article VI or one of the following subsections:

(a) **Material Default.** If Licensee shall fail after thirty (30) days written notice from Tufts to pay to Tufts any royalties or other payments and payable hereunder, or shall fail in any material way to perform any other agreement required to be performed by Licensee under this Agreement, or if any Subsidiary or sublicensee shall be in material breach of any conditions or obligations affecting Tufts and compliance with which Licensee is responsible for hereunder, or if any representation or warranty of Licensee contained in this Agreement shall prove to have been inaccurate or misleading in any material way when made (referred to collectively and individually as a “material default”), then, without limitation of and in addition to any and all other rights and remedies available to Tufts with respect to such material default, Tufts may terminate the License and Tufts’ obligations hereunder by written notice to Licensee at any time after the expiration of such thirty (30) day notice period if Licensee has not cured the material default and the effects thereof before Tufts gives such notice of termination to Licensee, unless Licensee commences arbitration proceedings hereunder to contest such material default, in which event Tufts’ right to terminate the License shall be stayed until such arbitration proceedings shall have been completed.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
(b) **Cessation of Business.** If Licensee shall have commenced to carry on the business of selling any Licensed Products (either directly or through any Subsidiary or sublicensee) and shall at any time thereafter cease for a consecutive period of ninety (90) days to carry on such business actively (either directly or through any Subsidiary or sublicensee), other than as a result of fire or other casualty or governmental action taken in the absence of Licensee’s fault, Tufts may at any time thereafter while that state of affairs continues, terminate the License by written notice to Licensee.

9.2 Licensee shall have the option at any time to terminate this License upon one-hundred and eighty (180) days’ written notice to Tufts.

9.3. **Effects.** Upon termination of the License for any reason, nothing herein shall be construed to release Licensee from any obligations hereunder except those of Article VI, but all rights of Licensee and its Subsidiaries and its sublicensees to make, use, or sell Licensed Products, or to practice the Patents and use the Technology, shall cease immediately, except that Licensee, its Subsidiaries, and its sublicensees may after the effective date of such termination sell all Licensed Products that they may have on hand at the date of termination, and may complete manufacture of Licensed Products then in the process of manufacture, and sell them, provided that they pay all royalties due thereon with respect to Gross Sales, as provided in this Agreement.

**ARTICLE X - NOTICE.**

Any notice or communication required to be given hereunder in writing shall be given by registered or certified mail, return receipt requested, or delivered by courier, return receipt requested, charges and postage prepaid, addressed to the parties, respectively, at the following addresses:

In the case of Tufts to:

Joseph J. Byrne, Ph.D.
Associate Provost for Research
Tufts University
136 Harrison Avenue
Boston, MA 02111

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.

15
ARTICLE XI - NON-USE OF NAMES.

Licensee, its subsidiaries and its sublicensees agree that it will not use the name “Tufts University,” or any variant thereof, or identify Tufts or any portion of Tufts, or any inventor of any of the Patents or Technology, as a party to this Agreement, or as a participant in inventing the inventions of the Patents or creating the Technology, including, without limitation, in any advertising or promotional sales literature, without the prior express written consent of Tufts, which consent may be withheld or withdrawn by Tufts in its complete and absolute discretion.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
uncontrolled discretion for any reason whatsoever and at any time or times. However, notwithstanding the foregoing, Tufts will make no objection to any proper reference by Licensee to published technical publications by such inventors or creators; and, subject to the confidentiality requirements hereof, Tufts will make no objection to Licensee’s making such disclosures as in the reasonable opinion of legal counsel are required as a matter of law and such general disclosures of this Agreement as may be desired by Licensee for purposes of grant solicitations from governmental authorities or as reasonably necessary (as reasonably determined by Licensee) for the purposes of obtaining financing for Licensee or as reasonably necessary (as reasonably determined by Licensee) for the conduct of its business, other than advertising or sales promotion. Licensee shall impose and enforce the requirements of this Article on its Subsidiaries and sublicensees.

ARTICLE XII - COMPLIANCE WITH LAWS.

12.1. Export Controls. The Export Control Regulations of the U. S. Department of Commerce prohibit, except under special validated license, the exportation from the United States of technical data relating to certain commodities (listed in the Regulations), unless the exporter has received certain written assurance from the foreign importer. In order to facilitate the exchange of technical information under this Agreement, Licensee therefore hereby agrees and gives its assurance to Tufts that Licensee will not, unless any required prior authorization is obtained from the U. S. Office of Export Control, re-export directly or indirectly any technical data received from Tufts under this Agreement and will not export directly the Licensed Products or such technical data to any country listed on either the Commodity Control List or Militarily-Critical Technologies List. Tufts makes no representation as to whether any such license is required or, if one is required, as to whether it will be issued by the U. S. Department of Commerce.

12.2. Other Laws. In addition to the foregoing export control requirements, Licensee agrees that it, its Subsidiaries, and its sublicensees will comply with all applicable mandatory or permissive patent marking laws, rules, and regulations and comply with all other laws, rules, and regulations of all governmental authorities applicable to any of their activities contemplated by this Agreement, and will comply with all necessary and desirable practices in connection and compliance with safety recommendations of trade associations or governmental authorities.

ARTICLE XIII - MISCELLANEOUS PROVISIONS.

13.1. Assignment. Licensee shall not assign the License or this Agreement without the prior written consent of Tufts, which consent shall not be unreasonably withheld; provided, however, that Licensee, without such consent, may assign all of its rights hereunder to a wholly-owned Subsidiary or to the acquiring party in connection with the transfer of all or substantially all of its business and assets to an acquiring party or in the event of its merger or consolidation with that acquiring party, if and only if the assignee shall assume all obligations.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
of Licensee under this Agreement. However, no assignment or other transfer by Licensee shall relieve Licensee of any obligations hereunder and Licensee shall continue to be primarily and jointly and severally liable (along with such assignee or other transferee) for the performance of all obligations of Licensee and such assignee or other transferee hereunder.

13.2. **Independent Contractors.** The parties hereto shall be independent contractors with respect to each other, and nothing contained herein shall be construed as constituting either of them as the agent, principal, employee, servant, joint venturer, or partner of the other for any purpose whatsoever.

13.3 **Governing Law.** This Agreement shall be governed by and construed in accordance with Massachusetts law, without regard to its conflict of laws principles.

13.4. **Sole Agreement.** This Agreement and any Exhibits annexed hereto (each of which is hereby made part hereof by this reference), and any other documents which may be expressly incorporated by reference herein, constitute the entire and only agreement between the parties concerning the subject matter hereof; and all prior negotiations, representations, warranties, agreements, and understandings related thereto are superseded hereby.

13.5. **Severability.** If any provision of this Agreement shall to any extent be found to be invalid or unenforceable, the remainder of this Agreement shall not be affected thereby, and any such invalid or unenforceable provision shall be reformed so as to be valid and enforceable to the fullest extent permitted by law.

13.6. **Headings.** Headings of Articles, Sections, and subsections included herein are for convenience of reference only and shall not be used to construe this Agreement.

13.7. **Financial Confidentiality.** Both parties agree to keep the financial terms of this Agreement confidential.

**ARTICLE XIV - ARBITRATION.**

14.1. **Arbitration.** Subject to Section 14.2 below, all disputes, controversies, or differences which may arise between the parties out of or in relation to or in connection with this Agreement, or for the breach thereof, which cannot be resolved by mutual agreement, shall be finally settled by arbitration to be held in accordance with the Commercial Arbitration Rules (the “Rules”) of the American Arbitration Association (the “Association”) as the Rules then exist, in Boston, Massachusetts, with the following deviations from the Rules. The arbitrators shall consist of one Tufts nominee, one Licensee nominee, and a third person jointly selected by those two nominees. The party requesting arbitration shall designate its nominee in the request, which shall be addressed to the Association with a simultaneous copy to the other party. If the other party shall fail within thirty (30) days of the request for arbitration to nominate the second arbitrator or if the two arbitrators are unable to agree upon the third arbitrator, the Association shall appoint the third arbitrator.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
arbitrator within thirty (30) days after selection of the second arbitrator, then in either case the arbitration panel will be completed according to the Rules. Both legal and equitable remedies shall be available to the arbitrators. The award of a majority of the arbitration panel shall be final and binding on the parties hereto and shall be enforceable in any court having jurisdiction. Tufts and Licensee each irrevocably consent and submit to the jurisdiction of the courts of the Commonwealth of Massachusetts and the United States District Court for the District of Massachusetts.

14.2. Judicial Relief. Claims, disputes, or controversies concerning the validity, infringement, construction, or effect of any patent including, without limitation, any patent licensed hereunder, shall be resolved in any court having jurisdiction thereof, and the parties submit to the jurisdiction of the United States District Court for the District of Massachusetts. In the event that, in any arbitration proceeding, any issue shall arise concerning the validity, infringement, construction, or effect of any patent licensed hereunder, the arbitrators shall assume the validity of all claims as set forth in such patent. In any case, the arbitrators shall not delay the arbitration proceeding for the purpose of obtaining or permitting either party to obtain judicial resolution of such an issue, unless an order staying such arbitration proceeding shall be entered by a court of competent jurisdiction. Neither party shall raise any issue concerning the validity, infringement, construction, or effect of any patent licensed hereunder in any proceeding to enforce any arbitration award hereunder in any proceeding otherwise arising out of any such arbitration award. Nothing in Section 14.1 shall be construed to waive any rights or timely performance of any obligations existing under this Agreement. Moreover, each party acknowledges that appropriate cases (as determined by the courts of competent jurisdiction) of a violation by either party of any of the provisions of this Agreement may entitle the other party to equitable judicial relief, and this relief shall be available in addition to, and shall not be unavailable by reason of, the arbitration provisions of Section 14.1, above. Such equitable judicial relief may be by temporary restraining orders, preliminary and permanent injunctions, and such other equitable relief as any court of competent jurisdiction may deem just and proper.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
IN WITNESS WHEREOF, the parties hereto have duly executed and delivered this License Agreement to be effective as of the Effective Date.

TUFTS UNIVERSITY

By: /s/ Steven S. Manos
Signature

Steven S. Manos
Typed Name
Executive Vice President
Title
3/19/97
Date

PARATEK PHARMACEUTICALS, INC.

By: /s/ Walter Gilbert
Signature

Typed Name
Title
4/23/97
Date

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
“Patent Rights” shall also include the patents to be applied for pursuant to the terms of the License Agreement after the Effective Date, after such applications are made.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
Patent Summary
Stuart B. Levy, Ph.D.
January 1997

Portions of this Exhibit, indicated by the mark "[***]," were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.

22
EXHIBIT B

List of Foreign Countries in which Patents are to be Filed.

United States
Canada
Japan
Europe (Germany, Belgium, France, Italy, Spain and United Kingdom)

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
Exhibit A is hereby amended to include:
- Provisional patent application “[***]”, Filed [***]
- Patent application “[***]”, Filed [***]

Section 1.4. “Field of Use” is hereby replaced by the following:

1.4. “Medical Field of Use” shall mean the prophylaxis, treatment or prevention of bacterial or microbial diseases or medical conditions in humans or animals or agriculture through the direct administration of (i) tetracycline derivatives or other compounds which affect tetracycline resistance or (ii) compounds based on knowledge of the MAR operon or (iii) compounds involving novel genes which affect antibiotic resistance or microbial infectivity and which are derived from studies of the MAR operon or (iv) compounds that affect any such genes.

“Disinfectant Field of Use” shall mean the use of compositions, including but not limited to disinfectants and soaps, in any manner other than the direct administration to humans or animals or agriculture, to kill or reduce the growth rate of microorganisms, where such compositions include (i) tetracycline derivatives or other compounds which affect tetracycline resistance or (ii) compounds based on knowledge of the MAR operon or (iii) compounds involving novel genes which affect antibiotic resistance or microbial infectivity and which are derived from studies of the MAR operon or (iv) compounds that affect any such genes.

“Field of Use” shall mean the Medical Field of Use and Disinfectant Field of Use, collectively.

Section 1.7. Third paragraph is hereby amended to read: “In the event that a Licensed Product in the Medical Field of Use under this Agreement is sold…”

Section 3.4 Running Royalties is hereby replaced by the following:

3.4. Running Royalties.

For the Medical Field of Use, Licensee agrees to pay to Tufts royalties of:

(a) [***] percent ([***]%) of the Gross Sales of Licensed Products, the making, using, or selling of which infringes (were it not for the License) at least one claim in an issued, unexpired and non-lapsed patent included in the Patent Rights; or

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
(b) [***] percent ([***]%) of the Gross Sales of Licensed Products that do not fall within the clause (a), above, but the manufacture, use or sale of which would infringe (were it not for the License) at least one claim in a pending application included in the Patent Rights, if such claim were to issue.

For the Disinfectant Field of Use, Licensee agrees to pay to Tufts royalties of:

[***] percent ([***]%) of the Gross Sales of Licensed Products, the making, using, or selling of which infringes (were it not for the License) at least one claim in an issued, unexpired and non-lapsed patent included in the Patent Rights or would infringe (were it not for the License) at least one claim in a pending application included in the Patent Rights, if such claim were to issue.

Section 3.5. Sublicense Royalties is hereby replaced by the following:

3.5. Sublicense Fees and Royalties. For each sublicense granted by Licensee, Licensee shall pay to Tufts [***] percent ([***]%) of that portion of any sublicense issue fees or license maintenance fees received by Licensee which are reasonably attributable to sublicenses of rights granted to Licensee hereunder. Funds received by Licensee from a sublicensee for research conducted by Licensee, achievement of product development-related performance milestones, or for equity investments in Licensee will not be subject to any fees hereunder.

For the Medical Field of Use, for each sublicense granted by Licensee, Licensee shall pay to Tufts the lesser of (i) [***] percent ([***]%) of any royalty payments received under such sublicense with respect to the Gross Sales by the sublicensee of Licensed Products covered by a claim contained in an issued Patent Right or a claim included in a pending application covering a Patent Right on a country-by-country basis or (ii) the royalty which would be due, pursuant to Section 3.4, if Licensee, rather than the sublicensee, had sold the Licensed Product.

For the Disinfectant Field of Use, for each sublicense granted by Licensee, Licensee shall pay to Tufts the lesser of (i) [***] percent ([***]%) of any royalty payments received under such sublicense with respect to the Gross Sales by the sublicensee of Licensed Products covered by a claim contained in an issued Patent Right or a claim included in a pending application covering a Patent Right on a country-by-country basis or (ii) the royalty which would be due, pursuant to Section 3.4, if Licensee, rather than the sublicensee, had sold the Licensed Product.

All other provisions of the Agreement remain unchanged and in full force and effect.

 Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
TUFTS UNIVERSITY

By: /s/ Philip G. Salem
    (signature)

Philip G. Salem
Name
Senior Director, University Development
Title
12/23/97
Date

Paratek Pharmaceuticals, Inc.

By: /s/ George C. Hillman
    (signature)

George C. Hillman
Name
Executive Vice President
Title
12/29/97
Date

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
Exhibit A is hereby amended to include:

- Patent application entitled: “[***]” Continuation in Part of U.S. patent No.: [***], Filed [***], Notice of Allowance [***].
- Provisional patent application entitled: “[***]”, Serial No.: [***], Filed [***]
- Patent application jointly owned with [***], entitled: “[***]”, Serial No.: [***], Filed [***]
- Provisional patent application entitled: “[***]”, Serial No.: [***], Filed [***]
- Patent application entitled: “[***]”, Serial No.: [***], Filed [***]
- Patent application entitled: “[***]”, U.S. patent No. [***], Issued [***], Divisional Application of U.S. patent No. [***]

All other provisions of the Agreement remain unchanged and in full force and effect.

TUFTS UNIVERSITY

By: /s/ Margaret Newell

(signature)

Margaret Newell

Name

Executive Vice President and Associate Provost for Research

Title

Date: 7/31/98

PARATEK PHARMACEUTICALS, INC.

By: /s/ George C. Hillman

(signature)

George C. Hillman

Name

Chief Operating Officer

Title

Date: 7/31/98

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
TUFTS UNIVERSITY - PARATEK PHARMACEUTICALS, INC
AMENDMENT NO. 3
TO LICENSE AGREEMENT DATED FEBRUARY 1, 1997

Exhibit A and all amendments and modifications are deleted and replaced in their entirety by the attached Exhibit A. Tufts’ ownership interests in all patents, patent applications and disclosures listed in the attached Exhibit A are hereby incorporated into the License Agreement dated February 1, 1997.

All other provisions of the Agreement as amended remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have duly executed and delivered this Amendment to be effective as of the last date of signature below.

TUFTS UNIVERSITY

By: /s/ Margaret Newell
Margaret Newell, Associate Provost for Research
Date: 6/3/99

PARATEK PHARMACEUTICALS, INC.

By: /s/ George Hillman
George Hillman, Executive Vice President
Date: 6/3/99

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
Compositions and Methods Related to Antibiotic Resistance

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
Compositions and Methods Related to Antibiotic Resistance

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
TETRACYLINE

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
Portions of this Exhibit, indicated by the mark "[***]," were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
TETRACYCLINE DISCLOSURES

[***] [***] [***] [***] [***] [***] [***]

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.

- 5 -
Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
Exhibit A and all amendments and modifications are deleted and replaced in their entirety by the attached Exhibit A. Tufts’ ownership interests in all patents, patent applications and disclosures listed in the attached Exhibit A are hereby incorporated into the License Agreement dated February 1, 1997. Exhibit A shall hereafter be updated on an annual basis. Each new Exhibit A shall be dated and appended hereto and by such action replace all prior versions of Exhibit A.

All other provisions of the Agreement as amended remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have duly executed and delivered this Amendment to be effective as of the last date of signature below.

TUFTS UNIVERSITY

By: /s/ Margaret Newell
Margaret Newell, Associate Provost for Research
Date: 8/9/00

Paratek Pharmaceuticals, Inc.

By: /s/ George Hillman
George Hillman, Executive Vice President
Date: 8/14/00

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
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Exhibit A and all amendments and modifications are deleted and replaced in their entirety by the attached Exhibit A. Tufts’ ownership interests in all patents, patent applications and disclosures listed in the attached Exhibit A are hereby incorporated into the License Agreement dated February 1, 1997. Exhibit A shall hereafter be updated on an annual basis. Each new Exhibit A shall be dated and appended hereto and by such action replace all prior versions of Exhibit A.

All other provisions of the Agreement as amended remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have duly executed and delivered this Amendment to be effective as of the last date of signature below.

TUFTS UNIVERSITY

By: /s/ Margaret Newell
Margaret Newell
Associate Provost for Research
Date: 9/10/01

PARATEK PHARMACEUTICALS, INC.

By: /s/ George Hillman
George Hillman
Executive Vice President
Date: 9/10/01

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- 4 -
Exhibit A and all amendments and modifications are deleted and replaced in their entirety by the attached Exhibit A. Tufts’ ownership interests in all patents, patent applications and disclosures listed in the attached Exhibit A are hereby incorporated into the License Agreement dated February 1, 1997. Exhibit A shall hereafter be updated on an annual basis. Each new Exhibit A shall be dated and appended hereto and by such action replace all prior versions of Exhibit A.

All other provisions of the Agreement as amended remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have duly executed and delivered this Amendment to be effective as of the last date of signature below.

TUFTS UNIVERSITY

By: /s/ Margaret Newell

Date: 12/11/02

PARATEK PHARMACEUTICALS, INC.

By: /s/ George Hillman

George Hillman
Executive Vice President

Date: 12/11/02

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Page 3
Section 3.4 Running Royalties is hereby replaced by the following:

3.4 Running Royalties.

For the Medical Field of Use, Licensee agrees to pay to Tufts royalties of:

(a) [***] percent ([***]%) of the Gross Sales of Licensed Products, the making using, or selling of which infringes (were it not for the License) at least one claim in an issued, unexpired and non-lapsed patent included in the Patent Rights; or

(b) [***] percent ([***]%) of the Gross Sales of Licensed Products that do not fall within clause (a), above, but the manufacture, use, or sale of which would infringe (were it not for the License) at least one claim in a pending patent application included in the Patent Rights, if such claim were to issue.

For the Disinfectant Field of Use, Licensee agrees to pay to Tufts royalties of:

[***] percent ([***]%) of the Gross Sales of Licensed Products, the making using, or selling of which infringes (were it not for the License) at least one claim in an issued, unexpired and non-lapsed patent included in the Patent Rights or would infringe (were it not for the License) at least one claim in a pending patent application included in the Patent Rights, if such claim were to issue.

Section 3.5 Sublicense Royalties is hereby replaced by the following:

3.5 Sublicense Royalties.

For the Medical Field of Use, Licensee agrees to make the following payments to Tufts:

(a) Sublicense Fees. For the Medical Field of Use, for each sublicense granted by Licensee, Licensee shall pay to Tufts [***] percent ([***]%) of that portion of any sublicense issue fees or license maintenance fees received by Licensee that are reasonably attributable to sublicenses of rights granted to Licensee hereunder. Funds received by Licensee from a sublicense for research conducted by Licensee, achievement of product development-related performance milestones, or for equity investments in Licensee will not be subject to any fees hereunder.

(b) Sublicense Royalties. For the Medical Field of Use, for each sublicense granted by Licensee, Licensee shall pay to Tufts the lesser of (i) [***] percent ([***]%) of any royalty payments received under such sublicense with respect to sales by the sublicensee of Licensed Products covered by a claim contained in an issued Patent Right or a claim included in a pending application covering a Patent Right on a country-by-country basis or (ii) the royalty which would be due, pursuant to Section 3.4, if Licensee, rather than the sublicensee, had sold the Licensed Product.

Portions of this Exhibit, indicated by the mark “[***],” were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant’s application requesting confidential treatment pursuant to Rule 406 of the Securities Act of 1933, as amended.
For the Disinfectant Field of Use, Licensee agrees to make the following payments to Tufts:

(c) **Sublicense Fees.** For the Disinfectant Field of Use, for each sublicense granted by Licensee, Licensee shall pay to Tufts [***] percent ([***]%) of that portion of any sublicense issue fees or license maintenance fees received by Licensee that are reasonably attributable to sublicenses of rights granted to Licensee hereunder. Funds received by Licensee from a sublicensee for research conducted by Licensee, achievement of product development-related performance milestones, or for equity investments in Licensee will not be subject to any fees hereunder.

(d) **Sublicense Royalties.** For the Disinfectant Field of Use, for each sublicense granted by Licensee, Licensee shall pay to Tufts the lesser of (i) [***] percent ([***]%) of any royalty payments received under such sublicense with respect to sales by the sublicensee of Licensed Products covered by a claim contained in an issued Patent Right or a claim included in a pending application covering a Patent Right on a country-by-country basis or (ii) the royalty which would be due, pursuant to Section 3.4, if Licensee, rather than the sublicensee, had sold the Licensed Product.

**ARTICLE VI — DILIGENCE**

clause (ii) of the fifth sentence is hereby amended to read:

(ii) filed an IND for a Licensed Product in the United States within seven (7) years of the Effective Date.

**ARTICLE VI — DILIGENCE**

Third paragraph is hereby amended to read: “Notwithstanding the foregoing, Tufts shall have the right at any time after twelve (12) years from the Effective Date to convert the License...”

**Exhibit A** and all amendments and modifications are deleted and replaced in their entirety by the attached Exhibit A. Tufts’ ownership interests in all patents, patent applications and disclosures listed in the attached Exhibit A are hereby incorporated into the License Agreement dated February 1, 1997. Exhibit A shall hereafter be updated on an annual basis. Each new Exhibit A shall be dated and appended hereto and by such action replace all prior versions of Exhibit A.

All other provisions of the Agreement as amended remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have duly executed and delivered this Amendment to be effective as of the last date of signature below.

**TUFTS UNIVERSITY**

By:  /s/ Margaret Newell  
Margaret Newell  
Associate Provost for Research  
Date:  7/1/03

**PARATEK PHARMACEUTICALS**

By:  /s/ Thomas J. Bigger  
Thomas J. Bigger  
President and Chief Executive Officer  
Date:  6/17/03

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AMENDMENT NO. 8 TO THE
TUFTS UNIVERSITY LICENSE AGREEMENT

This Amendment No. 8 to the Tufts University License Agreement (this “Amendment”), dated as of November 20, 2012 (the “Amendment Effective Date”) is by and between Paratek Pharmaceuticals, Inc. (“Licensee”), and Tufts University, a/k/a Trustees of Tufts College (“Tufts”). Each of Licensee and Tufts is sometimes referred to individually herein as a “Party” and collectively as the “Parties”.

WHEREAS, the Parties entered into the Tufts University License Agreement, effective as of February 1, 1997 and entered into amendments thereto: Amendment No. 1 dated as of December 29, 1997, Amendment No. 2 dated July 31, 1998, Amendment No. 3 dated June 3, 1999, Amendment No. 4 dated August 14, 2000, Amendment No. 5 dated September 10, 2001, Amendment No. 6 dated December 11, 2002, Amendment No. 7 dated July 1, 2003 and the letter agreement dated September 17, 2009 (the “Novartis Amendment”), as so amended, the “License Agreement”; and

WHEREAS, the Parties now wish to further amend the License Agreement as set forth herein.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Parties hereto, intending to be legally bound, hereby agree as follows:

1. Amendments to Agreement.
   (a) The definition of Field of Use in Section 1.4 of the License Agreement is hereby deleted in its entirety and the following is hereby inserted in lieu thereof:

   “Medical Field of Use” shall mean the prophylaxis, treatment or prevention of all diseases or medical conditions in humans, animals and/or agriculture, including bacterial or microbial diseases, through the direct administration of (a) tetracycline derivatives or (b) compounds which affect tetracycline resistance or (c) compounds based on knowledge of the MAR operon or (d) compounds involving novel genes which affect antibiotic resistance or microbial infectivity and which are derived from studies of the MAR operon or (e) compounds that affect any such genes.

   “Disinfectant Field of Use” shall mean the use of compositions, including but not limited to disinfectants and soaps, in any manner other than the direct administration to humans or animals or agriculture, to kill or reduce the growth rate of microorganisms, where such compositions include (a) tetracycline derivatives or (b) compounds which affect tetracycline resistance or (c) compounds based on knowledge of the MAR operon or (d) compounds involving novel genes which affect antibiotic resistance or microbial infectivity and which are derived from studies of the MAR operon or (e) compounds that affect any such genes.
“Field of Use” shall mean the Medical Field of Use and Disinfectant Field of Use, collectively.

(b) The definition of Licensed Products in Section 1.6 of the License Agreement is hereby amended by adding the following at the end of the definition:

“For purposes of clarity, the Parties hereby agree that [ * ] shall be treated as Licensed Products.”

(c) The first sentence of Section 3.3 of the License Agreement is hereby deleted in its entirety and the following is hereby inserted in lieu thereof:

“Licensee agrees to pay to Tufts a minimum royalty payment of Twenty Five Thousand Dollars ($25,000) at the end of each twelve-month period commencing on each anniversary of the Effective Date.”

(d) Section 3.4 of the License Agreement is hereby deleted in its entirety and the following is hereby inserted in lieu thereof:

“3.4 Running Royalties.

For the Medical Field of Use, Licensee agrees to pay to Tufts royalties of:

[ * ] percent ([ * ]%) of the Gross Sales of Licensed Products, (a) that are comprised of or contain Licensed Compounds or (b) the making, using, or selling of which infringes (were it not for the License) at least one claim in an issued, unexpired and non-lapsed patent included in the Patent Rights or would infringe (were it not for the License) at least one claim in a pending patent application included in the Patent Rights, if such claim were to issue.

For the Disinfectant Field of Use, Licensee agrees to pay to Tufts royalties of:

[ * ] percent ([ * ]%) of the Gross Sales of Licensed Products, (a) that are comprised of or contain Licensed Compounds or (b) the making, using, or selling of which infringes (were it not for the License) at least one claim in an issued, unexpired and non-lapsed patent included in the Patent Rights or would infringe (were it not for the License) at least one claim in a pending patent application included in the Patent Rights, if such claim were to issue.”

(e) The following new Section 3.6A of the License Agreement is hereby inserted immediately before Section 3.6:

“3.6A Licensee Challenge. In the event Licensee, its affiliates or subsidiaries, directly or indirectly through a third party, initiates a Challenge or assists any party in doing so then, commencing on the date that such Challenge is initiated and continuing until such Challenge is irrevocably withdrawn: (a) the [ * ] shall be [ * ] and (b) Licensee’s right to withhold any royalty identified in Section 3.6 shall not be applicable, in the case of each of (a), (b) and (c) of Section 3.6 until such Challenge has been withdrawn irrevocably. As used herein, the term “Challenge” shall mean any challenge to the validity or enforceability of any patents or patent applications owned in whole or in part by Tufts by: (a) filing a declaratory judgment action in which any such patents or patent applications is alleged to be invalid or unenforceable; (b) filing a request for re-examination of

[ * ] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.
any of such patents or patent applications pursuant to 35 U.S.C. §302 and/or §311, or provoking or becoming party to an interference with an application for any such patents or patent applications pursuant to 35 U.S.C. §135; or (c) filing or commencing any post grant review, inter partes review, third party observation, derivation, opposition, cancellation, nullity or similar proceedings against any of such patents or patent applications."

(f) The fourth paragraph of Article VI of the License Agreement is hereby deleted in its entirety and the following is hereby inserted in lieu thereof:

"Notwithstanding the foregoing, Tufts shall have the right at any time after [*] to convert the License hereunder to non-exclusive if Licensee, its Subsidiaries or its sublicensees have not by the time of such conversion met each of the following milestones by the applicable date:

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(g) The Novartis Amendment is hereby terminated and of no further force and effect.

2. **Payment of Minimum Royalty Fee.** The $25,000 Minimum Royalty Fee for the license period through the Amendment Effective Date shall be paid by Licensee to Tufts within [*] days of the date that Licensee receives an invoice from Tufts on and after the Amendment Effective Date.

3. **Further Clarification of Terms.** Tufts hereby agrees to cooperate with Licensee, including by taking such actions reasonably requested by Licensee, to enforce, commercialize products under, protect and/or maintain foreign patents or patent applications included as Patent Rights under the License Agreement, as amended by the Amendment, in each case including any divisions, continuations, continuations-in-part, re-examinations, extensions, renewals, or reissues of such patents or patent applications. Licensee hereby agrees to cooperate with Tufts to properly reflect the rights of Tufts in any patents or patent applications covering any products that include or contain any compound identified as a lead by Paratek, in each case including any divisions, continuations, continuations-in-part, re-examinations, extensions, renewals, or reissues of such patents or patent applications. Licensee will file and prosecute patent applications or claims to pending patent applications corresponding to the Patent Rights as reasonably requested by Tufts. Licensee shall reimburse Tufts for its reasonable attorneys’ fees and out-of-pocket costs incurred on and after the Amendment Effective Date and ending on January 31, 2014 and $[*] each twelve (12) month period thereafter, which shall be payable in arrears within [*] days upon submission by Tufts to Licensee of an invoice evidencing such fees and costs.

4. **Covenant.** The Parties hereby covenant and agree to use commercially reasonable efforts to reach a mutually satisfactory agreement on an amendment to Exhibit A to the License Agreement as soon as practicable after the Amendment Effective Date and before [*].

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.
5. **Confirmation.** Tufts hereby confirms to Licensee that Licensee, as of the date of the Amendment: (a) has provided to Tufts all annual and any other reports required pursuant to Article VI of the License Agreement; and (b) has made the payments required by Sections 3.1, and 3.3 (including but not limited to Sponsored Research Agreement payments) under the License Agreement.

6. **Miscellaneous.** The Parties hereby confirm and agree that the License Agreement, as amended hereby and as further provided in this Amendment, together shall constitute the entire amended License Agreement among the parties, remains in full force and effect and is a binding obligation of the Parties hereto. This Amendment may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[Remainder of page intentionally left blank.]
IN WITNESS WHEREOF, the Parties hereto have executed this Amendment as of the Amendment Effective Date.

PARATEK PHARMACEUTICALS, INC.

By:  /s/ Dennis Molnar
Name: Dennis Molnar
Title: President and Chief Executive Officer

TUFTS UNIVERSITY A/K/A TRUSTEES OF TUFTS COLLEGE

By:  /s/ David R. Harris
Name: David R. Harris
Title: Provost & Senior Vice President

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.
AMENDMENT NO. 9 TO THE TUFTS UNIVERSITY LICENSE AGREEMENT

This Amendment No. 9 to the Tufts University License Agreement (this “Amendment”), dated as of June 24th, 2014 (the “Amendment Effective Date”) is by and between Paratek Pharmaceuticals, Inc. (“Licensee”), and Tufts University, a/k/a Trustees of Tufts College (“Tufts”). Each of Licensee and Tufts is sometimes referred to individually herein as a “Party” and collectively as the “Parties”.

WHEREAS, the Parties entered into the Tufts University License Agreement, effective as of February 1, 1997 and entered into amendments thereto: Amendment No. 1 dated as of December 29, 1997, Amendment No. 2 dated July 31, 1998, Amendment No. 3 dated June 3, 1999, Amendment No. 4 dated August 14, 2000, Amendment No. 5 dated September 10, 2001, Amendment No. 6 dated December 11, 2002, Amendment No. 7 dated July 1, 2003 and Amendment No. 8 dated November 20, 2012, as so amended, the “License Agreement”; and

WHEREAS, the Parties now wish to further amend the License Agreement as set forth herein.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Parties hereto, intending to be legally bound, hereby agree as follows:

1. Amendments to Agreement.

(a) The fourth paragraph of Article VI of the License Agreement is hereby deleted in its entirety and the following is hereby inserted in lieu thereof:

“Notwithstanding the foregoing, Tufts shall have the right at any time after [*] to convert the License hereunder to non-exclusive if Licensee, its Subsidiaries or its sublicensees have not by the time of such conversion met each of the following milestones by the applicable date:

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(b) The Covenant in Section 4 of Amendment No. 8 is hereby deleted in its entirety and the following is hereby inserted in lieu thereof:

“4. Covenant. The Parties hereby covenant and agree to use commercially reasonable efforts to reach a mutually satisfactory agreement on an amendment to Exhibit A to the License Agreement as soon as practicable after the Amendment Effective Date and before [*].”
2. Payment of outstanding Minimum Royalty Fees due under Section 2 of Amendment No. 8. The $25,000 Minimum Royalty Fee described in the invoice dated [*] and attached as Appendix A to this Amendment No. 9 shall be paid by Licensee to Tufts by [*]. The $25,000 Minimum Royalty Fee described in the invoice dated [*] and attached as Appendix B to this Amendment No. 9 shall be paid by Licensee to Tufts within by [*].

3. Miscellaneous. The Parties hereby confirm and agree that the License Agreement, as amended hereby and as further provided in this Amendment, together shall constitute the entire amended License Agreement among the parties, remains in full force and effect and is a binding obligation of the Parties hereto. This Amendment may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[Remainder of page intentionally left blank.]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.
IN WITNESS WHEREOF, the Parties hereto have executed this Amendment as of the Amendment Effective Date.

PARATEK PHARMACEUTICALS, INC.

By: /s/ Dennis Molnar
Name: Dennis Molnar
Title: President and Chief Executive Officer

TUFTS UNIVERSITY A/K/A TRUSTEES OF TUFTS COLLEGE

By: /s/ Diane L. Souvaine
Name: Diane L. Souvaine
Title: Vice-Provost for Research

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.
Tufts University—Paratek Pharmaceuticals License Agreement
effective February 1, 1997
Amendment 8 of November 20, 2012
Amendment to section 3.3
Minimum royalty payment of twenty five thousand dollars at the end of each twelve month period commencing on each anniversary of effective date

INVOICE
Fee due for license period through the amendment 8 effective date
February 1, 2012, through January 31, 2013 $25,000.00

Please make your check payable to Tufts University and send it to

Thomas McVarish
Tufts University
Office of the Vice Provost
Suite 75K-950
136 Harrison Avenue
Boston, MA 02111

Phone • [ * ] E-mail • [ * ]

[ * ] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.
By email to dmolnar@Paratekpharm.com

Dennis Molnar
President, Chief Executive Officer
Paratek Pharmaceuticals, Inc.
75 Kneeland Street
Boston, MA 02111

Re: Tufts University—Paratek Pharmaceuticals License Agreement
effective February 1, 1997
Amendment 8 of November 20, 2012
Amendment to section 3.3

Minimum royalty payment of twenty five thousand dollars at the end of each twelve month period commencing on each anniversary of effective date

INVOICE

Fee due for license period

February 1, 2013, through January 31, 2014 $25,000.00

Please make your check payable to Tufts University and send it to

Thomas McVarish
Tufts University
Office of the Vice Provost
Suite 7K-950
136 Harrison Avenue
Boston, MA 02111

Phone • E-mail

[ * ] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.
Re: Amended and Restated Employment Agreement

Dear Doug:

On behalf of Paratek Pharmaceuticals, Inc. ("Paratek" or the "Company") I am pleased to offer you continued employment under the terms of this Amended and Restated Employment Agreement (the "Agreement"). In this Agreement, you and the Company hereby amend, supersede, and restate in its entirety that certain offer letter agreement between the Company and you dated November 19, 2014 (the "Employment Agreement").

Employment Position and Duties

You will be employed in the position of Chief Financial Officer ("CFO"). You will be expected to perform the customary duties of your position, duties specified in the Bylaws of the Company, and as may be required by the Company’s Board of Directors (the "Board") consistent with your position as CFO. You will report to the Chief Executive Officer, and work at the Company’s corporate headquarters in Boston, Massachusetts. During your employment with the Company, you will devote your full-time best efforts and business time and attention to the business of the Company. As an exempt salaried employee, you will be expected to be available and working during the Company’s regular business hours, and such additional time as appropriate to manage your responsibilities. The Company reserves the right to reasonably require you to perform your duties at places other than its corporate headquarters from time to time, and to require reasonable business travel, including international travel, at the Company’s expense.

Your employment relationship with the Company will also be governed by the general employment policies and practices of the Company, except that if the terms of this Agreement conflict, this Agreement will control.

Base Salary

You will earn a salary at the rate of $25,000 per month ($300,000 annualized), less payroll deductions and withholdings ("Base Salary"), payable on the Company’s regular payroll schedule. The Base Salary will be reviewed on an annual or more frequent basis by the Board (or any authorized committee thereof), and is subject to change in the discretion of the Board (or any authorized committee thereof).

Signing Bonus

You are eligible to earn a signing bonus in an amount equal to $65,000, representing the compensation you are forfeiting by joining Paratek, subject to payroll deductions and withholdings, which will become earned on the earlier of: (a) the date you complete ninety (90) days of service with the Company, or (b) the date your employment by Paratek is terminated by Paratek without Cause or by you for Good Reason, and will become payable on the first regular Company paydate thereafter.
Discretionary Performance Bonus

Starting with calendar year 2015, you will be eligible to earn a discretionary performance bonus of up to thirty percent (30%) of your Base Salary, subject to applicable payroll deductions and withholdings (“Bonus”), based upon the Board’s assessment of your performance, and the Company’s attainment of written targeted goals as determined by the Board in its sole discretion. Following the close of each calendar year, the Board will determine in its discretion whether you have earned a Bonus, and the amount of any Bonus. You will be eligible to earn a Bonus for any full calendar year provided that you remain employed by the Company as of December 31 of that year. The Bonus, if earned, will be paid no later than March 15 of the calendar year after the year to which it relates.

Employee Benefits

As a regular employee, you will be eligible to participate in the Company’s standard employee benefits, pursuant to the terms and conditions of the benefit plans and applicable policies, and for any additional benefits provided to the Company’s executive employees generally. You will also be eligible to accrue paid vacation in accordance with the terms of the Company’s vacation policy. The Company may change employee benefits from time to time in its discretion. Details about these benefits are provided in the employee handbook and Summary Plan Descriptions, available for your review.

Business Expenses

The Company will pay or reimburse you for all reasonable business expenses incurred or paid by you in the performance of your duties and responsibilities for the Company, subject to such reasonable substantiation and documentation as may be required by the Company, and subject to any maximum annual limit and other restrictions on or policies governing such expenses as set by the Company from time to time.

Equity Compensation

You have been granted options (the “Options”), under the Paratek Pharmaceuticals, Inc. 2015 Inducement Plan (the “Inducement Plan”), to purchase 160,000 shares of the Company’s Common Stock, at fair market value as determined by the Board as of the date of grant. The Options will be governed in full by the terms and conditions of the Inducement Plan and your individual grant agreement; provided, however, subject to your continued service (as defined in the Inducement Plan), the Options will vest over a four (4)-year vesting period, under which twenty-five percent (25%) of your shares will vest after twelve (12) months of employment, with the remaining shares vesting monthly thereafter over the remaining thirty-six (36)-month period.

You have been granted Restricted Stock Units ("RSUs") under the Transcept Pharmaceuticals, Inc. 2006 Incentive Award Plan, as amended and restated (the “2006 Plan”), for 35,000 shares of Common Stock of the Company. The RSUs will be governed in full by the terms and conditions of the 2006 Plan and your individual Restricted Stock Unit Award Grant Notice and Restricted Stock Unit Award Agreement; provided, however, subject to your continued service with the Company as defined in the 2006 Plan, the RSUs shall vest and shares of Common Stock shall be issuable upon the three (3)-year anniversary of the grant date.
At-Will Employment Relationship

You may terminate your employment with the Company at any time, with or without Good Reason, and with or without advance notice, and for any reason whatsoever simply by notifying the Company. Likewise, the Company may terminate your employment at any time, with or without Cause, and with or without advance notice. Your employment at-will status can only be modified in a written agreement approved by the Board and signed by you and a duly authorized Member of the Board.

Payments upon Termination Other than Without Cause or with Good Reason

Upon termination of your employment for any reason other than by the Company without Cause or by you with Good Reason, you shall be paid all accrued but unpaid Base Salary, any earned but unpaid bonus, reimbursement for business expenses incurred by you but not yet paid to you as of the date your employment terminates, and all accrued but unused vacation (collectively, the “Accrued Payments”). Your Options shall terminate, as to all unvested shares, as of your termination date.

Termination without Cause or with Good Reason

Upon termination of your employment at any time by the Company without Cause or by you with Good Reason, each as defined below, you will receive the Accrued Payments. In addition, subject to your fulfillment of the Release Obligation, as defined below, you will be eligible for the following severance benefits:

1. Cash Severance Payments. You will be eligible to receive cash severance equal to twelve (12) months of Base Salary following the termination date, subject to payroll withholding and deduction (“Severance Payments”), and paid according to the Company’s regular payroll procedures. Payment of Severance Payments shall commence on the sixtieth (60th) day following your employment termination, which initial payment shall include a lump sum payment equal to the aggregate semi-monthly installments that would otherwise have been due during the period between the termination date and the sixtieth (60th) day, but for the sixty (60)-day delay in this provision. Thereafter, the remaining installments shall be paid on the Company’s regular paydays.

2. Pro-Rata Severance Bonus. You will also be eligible to receive an amount (the “Pro-Rata Bonus”) equal to the Bonus you would have earned for the year in which your employment terminates, prorated by multiplying the Bonus that you would have earned if you had remained employed through December 31 by the portion of the year that you had actually remained employed, and subject to payroll withholding and deduction. The determination by the Board of the Bonus amount you would have earned shall be based on actual performance for the full calendar year, except that any applicable subjective performance conditions will be disregarded in determining actual performance, and the entire amount of the Bonus, if any, will be determined based on applicable objective performance conditions. Any Pro-Rata Bonus will be paid at the same time bonuses are paid to the other executives of the Company, but in no event later than March 15 of the calendar year after the year to which it relates.

3. Paid Health Care Coverage; Other Benefits Continuation.
   a. If at the time of your employment termination you participate in health care coverage through the Company’s plan, then provided that you timely elect continued
coverage under COBRA, the Company will pay your COBRA premiums to continue your coverage (including coverage for eligible dependents, if applicable) (“COBRA Premiums”) through the period (the “COBRA Premium Period”) starting on the termination date and ending on the earliest to occur of the date: (i) twelve (12) months after the termination date; (ii) you become eligible for group health insurance coverage through a new employer; or (iii) you cease to be eligible for COBRA continuation coverage for any reason, including plan termination. In the event you become covered under another employer’s group health plan or otherwise cease to be eligible for COBRA during the COBRA Premium Period, you must immediately notify the Company of such event.

b. Notwithstanding the foregoing, if the payment by the Company of the COBRA Premiums will subject or expose the Company to taxes or penalties, you and the Company agree to renegotiate the provisions of paragraph 3(a) in good faith and enter into a substitute arrangement pursuant to which the Company will not be subjected or exposed to taxes or penalties and you will be provided with payments or benefits with an economic value that is no less than the economic value of the COBRA Premiums.

Definitions

For purposes of this Agreement, the following definitions shall apply:

1. “Cause” shall mean the occurrence of any of the following events: (a) your conviction of any felony or any crime involving fraud, embezzlement, dishonesty or moral turpitude under the laws of the United States or any state thereof; (b) your attempted commission of, or participation in, a fraud, embezzlement or act of material dishonesty against the Company or a Company affiliate; (c) your intentional, material violation of any contract or agreement between you and the Company or a Company affiliate or of any statutory duty owed to the Company or a Company affiliate; (d) your intentional unauthorized use or disclosure of the Company’s or a Company affiliate’s confidential information or trade secrets; (e) your refusal or failure to perform any duties required of you, if such duties are consistent with duties customary for your position, which refusal or failure continues after a period of thirty (30) days following your receipt of notice from the Company that it deems such conduct Cause for termination of your employment hereunder; or (f) your gross misconduct.

Notwithstanding anything to the contrary in this Agreement or any other Agreement between the Company and you, “Cause” shall not include or be predicated upon any act or omission by you, which is taken or made either (a) in good faith, under your reasonable belief that the act or omission was in the best interests of the Company; (b) to comply with a lawful court order, directive from a federal, state or local government agency or industry regulatory authority, or subpoena; or (c) at the direction of the Board or upon the advice of counsel for the Company.

2. “Good Reason” shall exist for resignation from employment with the Company if any of the following actions are taken by the Company without your prior consent: (a) a reduction in your Base Salary or Bonus target percentage of Base Salary, unless the salaries or bonus target percentages of all other senior executive officers of the Company are correspondingly and proportionately reduced; (b) a removal from the office of CFO; or (c) a relocation of your principal place of employment to a place that increases your one-way
commute by more than thirty-five (35) miles as compared to your then-current principal place of employment immediately prior to such relocation. In order for you to resign for Good Reason, each of the following requirements must be met: (w) you must provide written notice to the Board within thirty (30) days after first becoming aware of the first occurrence of the event giving rise to Good Reason setting forth the basis for your resignation, (x) you must allow the Company at least thirty (30) days from receipt of such written notice (the “Cure Period”) to cure such event, (y) such event is not reasonably cured by the Company within the Cure Period, and (z) you must resign from all positions you then hold with the Company not later than sixty (60) days after the expiration of the Cure Period.

3. “Release Obligation” means that: (a) you have signed a general release and waiver of claims in favor of the Company and its affiliates, as part of a termination agreement acceptable to the Company that contains standard provisions including (i) a mutual non-disparagement provision, (ii) a provision providing that, notwithstanding anything to the contrary in any agreement between you and the Company, each party will be responsible for its own expenses incurred in connection with the enforcement of such agreement, and (iii) customary exclusions from your release of claims including (A) any claims with respect to amounts due and owing to you pursuant to the terms and conditions of this Agreement or under any other employee benefit plan of the Company or its affiliates; (B) any claims or rights you may have to indemnification or advancement of expenses under the by-laws or other applicable corporate governing documents of the Company or any other plan, policy, agreement, or arrangement, or under applicable law; (C) any rights, coverage or entitlements provided to you under any D&O insurance policies paid for by the Company (or its affiliates); and (D) any rights or claims you may have against the Company or its affiliates which arise after the date of the termination agreement, and (b) you have allowed the release and waiver to become fully effective without revocation during any applicable revocation period.

Change in Control

Upon the termination of your employment by the Company without Cause, or by you with Good Reason, in either case during a time period starting on the date ninety (90) days before the closing of a Change in Control and ending on the date twelve (12) months after the closing of a Change in Control, provided that you meet the Release Obligation and you provide continued services through your termination date, then your Options and RSUs shall vest in full (“Accelerated Vesting”), effective as of the termination date of your employment.

A “Change in Control” shall mean any of the following: (a) a merger or consolidation in which the Company is a constituent party (or if a subsidiary of the Company is a constituent party and the Company issues shares of its capital stock pursuant to such merger or consolidation), other than a merger or consolidation in which the voting securities of the Company outstanding immediately prior to such merger or consolidation continue to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the combined voting power of the voting securities of the surviving entity outstanding immediately after such merger or consolidation, or (b) any transaction or series of related transactions in which in excess of fifty percent (50%) of the Company’s voting power is transferred, other than the sale by the Company of stock in transactions the primary purpose of which is to raise capital for the Company’s operations and activities, or (c) a sale, lease, exclusive license or other disposition of all or substantially all (as determined by the Board in its sole discretion) of the assets of the Company.
Section 280G

If any payment or benefit (including payments and benefits pursuant to this Agreement) that you would receive in connection with a Change in Control from the Company or otherwise ("Transaction Payment") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Internal Revenue Code (the "Code"), and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "Excise Tax"), then the Company shall cause to be determined, before any amounts of the Transaction Payment are paid to you, which of the following two alternative forms of payment would result in your receipt, on an after-tax basis, of the greater amount of the Transaction Payment notwithstanding that all or some portion of the Transaction Payment may be subject to the Excise Tax: (1) payment in full of the entire amount of the Transaction Payment (a "Full Payment"), or (2) payment of only a part of the Transaction Payment so that you receive the largest payment possible without the imposition of the Excise Tax (a "Reduced Payment"). For purposes of determining whether to make a Full Payment or a Reduced Payment, the Company shall cause to be taken into account all applicable federal, state and local income and employment taxes and the Excise Tax (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes). If a Reduced Payment is made, (x) you shall have no rights to any additional payments and/or benefits constituting the Transaction Payment, and (y) reduction in payments and/or benefits shall occur in the manner that results in the greatest economic benefit to you as determined in this paragraph. If more than one method of reduction will result in the same economic benefit, the portions of the Transaction Payment shall be reduced pro rata. Unless you and the Company otherwise agree in writing, any determination required under this paragraph shall be made in writing by the Company’s independent public accountants (the “Accountants”), whose determination shall be conclusive and binding upon you and the Company for all purposes. For purposes of making the calculations required by this paragraph, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. You and the Company shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this paragraph. The Company shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this paragraph as well as any costs incurred by you with the Accountants for tax planning under Sections 280G and 4999 of the Code.

Indemnification; D&O Insurance

You will be entitled to the same indemnification under the terms of the Company’s by-laws and Certificate of Incorporation as is provided, and such liability insurance as the Company may from time to time purchase, for its Board members and senior officers, including such post-termination indemnification and liability insurance as applicable to other Board members and senior executives. As required by the Company’s Certificate of Incorporation, the Company shall enter into its customary indemnification agreement with you.

Compliance with Proprietary Information Agreement and Company Policies

As a condition of employment, you have signed and must continue to comply with the Company’s standard form of Employee Proprietary Information, Inventions Assignment, Non-Competition and Non-Solicitation Agreement (the “Proprietary Information Agreement”, a copy of which is attached hereto as Exhibit A) which prohibits unauthorized use or disclosure of the Company’s proprietary information, among other obligations. As a Paratek employee, you will be expected to abide by Company policies and practices, as may be changed from time to time in the Company’s discretion, and acknowledge in writing that you have read the Company’s employee handbook.
Protection of Third Party Information

In your work for the Company, you will be expected not to use or disclose any confidential information, including trade secrets, of any former employer or other person to whom you have an obligation of confidentiality. Rather, you will be expected to use only that information which is generally known and used by persons with training and experience comparable to your own, which is common knowledge in the industry or otherwise legally in the public domain, or which is otherwise provided or developed by the Company. You agree that you will not bring onto Company premises, or use in the performance of your duties, any unpublished documents or property belonging to any former employer or other person to whom you have an obligation of confidentiality. You hereby represent that you have disclosed to the Company any contract you have signed that may restrict your activities on behalf of the Company.

Outside Activities

Except with the prior written consent of the Board, you will not during your employment engage in any other employment, occupation or business enterprise, other than ones in which you are a passive investor. You may engage in civic and not-for-profit activities so long as such activities do not materially interfere with the performance of your duties. During your employment, you agree not to acquire, assume or participate in, directly or indirectly, any entity, investment, or interest known by you to be adverse or antagonistic to the Company, its business or prospects, financial or otherwise, including any person, corporation, firm, partnership or other entity whatsoever known by you to compete with the Company (or is planning or preparing to compete with the Company), anywhere in the world, in any line of business engaged in (or planned to be engaged in) by the Company. You may purchase or otherwise acquire up to one percent (1%) of any class of securities of any enterprise if such securities are listed on any national or regional securities exchange, provided that you refrain from participating in the business activities of such enterprise.

Agreement to Arbitrate

To ensure the rapid and economical resolution of disputes that may arise in connection with your employment with the Company, you and the Company both agree that any and all disputes, claims, or causes of action, in law or equity, including but not limited to statutory claims, arising from or relating to the enforcement, breach, performance, or interpretation of this Agreement, your employment with the Company, or the termination of your employment with the Company, will be resolved pursuant to the Federal Arbitration Act, 9 U.S.C. §1-16, and to the fullest extent permitted by law, by final, binding and confidential arbitration conducted in Boston, Massachusetts by JAMS, Inc. (“JAMS”) or its successors.

Both you and the Company acknowledge that by agreeing to this arbitration procedure, you each waive the right to resolve any such dispute through a trial by jury or judge or administrative proceeding.

Any such arbitration proceeding will be governed by JAMS’ then applicable rules and procedures for employment disputes, which can be found at http://www.jamsadr.com/rules-clauses/, and which will be provided to you upon request. In any such proceeding, the arbitrator shall: (i) have the authority to compel adequate discovery for the resolution of the dispute and to award such relief as would otherwise be permitted by law; and (ii) issue a written arbitration decision including the arbitrator’s essential
findings and conclusions and a statement of the award. You and the Company each shall be entitled to all rights and remedies that either would be entitled to pursue in a court of law. Nothing in this Agreement is intended to prevent either the Company or you from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration pursuant to applicable law.

Section 409A

It is the intention of the parties that this Agreement comply with the requirements of Section 409A of the Internal Revenue Code of 1986, as amended, and applicable guidance issued thereunder ("Section 409A"), and this Agreement will be interpreted in a manner intended to comply with Section 409A. All payments under this Agreement are intended to be excluded from the requirements of Section 409A or be payable on a fixed date or schedule in accordance with Section 409A(a)(2)(iv). Notwithstanding anything in this Agreement to the contrary, in the event that you are deemed to be a “specified employee” within the meaning of Section 409A(a)(2)(B)(i) and are not “disabled” within the meaning of Section 409A(a)(2)(C), no payments hereunder that are “deferred compensation” subject to Section 409A shall be made to you prior to the date that is six (6) months after the date of your “separation from service” (as defined in Section 409A and any Treasury Regulations promulgated thereunder) or, if earlier, your date of death. Following any applicable six (6) month delay, all such delayed payments will be paid in a single lump sum on the earliest permissible payment date, together with simple interest on the amount of each delayed payment at the U.S. short term applicable federal rate as of the date of the separation from service. For purposes of this Agreement, with respect to payments of any amounts that are considered to be “deferred compensation” subject to Section 409A, references to “termination of employment” (and substantially similar phrases) shall be interpreted and applied in a manner that is consistent with the requirements of Section 409A. For purposes of Section 409A, your right to receive any installment payment pursuant to this Agreement will be treated as a right to receive a series of separate and distinct payments.

Entire Agreement; Contingencies

This Agreement, together with your Proprietary Information Agreement, forms the complete and exclusive statement of your employment agreement with the Company. It supersedes any other prior agreements or promises made to you by anyone, whether oral or written, including the Employment Agreement. Changes in your employment terms, other than those changes expressly reserved to the Company’s or Board’s discretion in this Agreement, require a written modification approved by the Board and signed by a duly authorized Member of the Board.

This Agreement will bind the heirs, personal representatives, successors and assigns of both you and the Company, and inure to the benefit of both you and the Company, their heirs, successors and assigns. If any provision of this Agreement is determined to be invalid or unenforceable, in whole or in part, this determination shall not affect any other provision of this Agreement and the provision in question shall be modified so as to be rendered enforceable in a manner consistent with the intent of the parties insofar as possible under applicable law.

This Agreement shall be construed and enforced in accordance with the laws of the Commonwealth of Massachusetts without regard to conflicts of law principles. Any waiver of a breach of this Agreement, or rights hereunder, shall be in writing and shall not be deemed to be a waiver of any successive breach or rights hereunder. This Agreement may be executed in counterparts which shall be deemed to be part of one original, and pdf or other facsimile signatures shall be equivalent to original signatures.
Please sign and date this Agreement to indicate your acceptance of continued employment at Paratek under the terms described above. We look forward to a continued productive and enjoyable work relationship.

Sincerely,

Paratek Pharmaceuticals, Inc.

/s/ MICHAEL F. BIGHAM
Michael F. Bigham
Chairman of the Board and Chief Executive Officer

Accepted:

/s/ DOUGLAS PAGAN
Douglas Pagán

Date: February 25, 2015
In consideration of my employment or continued employment by Paratek Pharmaceuticals, Inc., its subsidiaries, parents, affiliates, successors and assigns (together, the “Company”) and the compensation now and hereafter paid to me, I hereby enter into this Employee Proprietary Information, Inventions Assignment, Non-Competition and Non-Solicitation Agreement (the “Agreement”) and agree as follows:

1. NONDISCLOSURE.

1.1 Recognition of Company’s Rights; Nondisclosure. I understand and acknowledge that my employment by the Company creates a relationship of confidence and trust with respect to the Company’s Proprietary Information (defined below) and that the Company has a protectable interest therein. At all times during my employment and thereafter, I will hold in strictest confidence and will not disclose, use, lecture upon or publish any of the Company’s Proprietary Information, except as such disclosure, use or publication may be required in connection with my work for the Company, or unless an authorized officer of the Company expressly authorizes such in writing. I will obtain the Company’s written approval before publishing or submitting for publication any material (written, verbal, or otherwise) that relates to my work at the Company and/or incorporates any Proprietary Information. I hereby assign to the Company any rights I may have or acquire in such Proprietary Information and recognize that all Proprietary Information shall be the sole property of the Company and its assigns. I will take all reasonable precautions to prevent the inadvertent or accidental disclosure of Proprietary Information.

1.2 Proprietary Information. The term “Proprietary Information” shall mean any and all confidential and/or proprietary knowledge, data or information of the Company, its affiliates, parents and subsidiaries, whether having existed, now existing, or to be developed during my employment. By way of illustration but not limitation, “Proprietary Information” includes (a) trade secrets, inventions, ideas, processes, formulas, assay components, biological materials, cell lines, and clinical data, data, programs, other works of authorship, know-how, improvements, discoveries, developments, designs and techniques and any other proprietary technology and all Proprietary Rights therein (hereinafter collectively referred to as “Inventions”); (b) information regarding research, development, new products, marketing and selling, business plans, budgets and unpublished financial statements, licenses, prices and costs, margins, discounts, credit terms, pricing and billing policies, quoting procedures, methods of obtaining business, forecasts, future plans and potential strategies, financial projections and business strategies, operational plans, financing and capital-raising plans, activities and agreements, internal services and operational manuals, methods of conducting Company business, suppliers and supplier information, and purchasing; (c) information regarding customers and potential customers of the Company, including customer lists, names, representatives, their needs or desires with respect to the types of products or services offered by the Company, proposals, bids, contracts and their contents and parties, the type and quantity of products and services provided or sought to be provided to customers and potential customers of the Company and other non-public information relating to customers and potential customers; (d) information regarding any of the Company’s business partners and their services, including names; representatives, proposals, bids, contracts and their contents and parties, the type and quantity of products and services received by the Company, and other non-public information relating to business partners; (e) information regarding personnel, employee lists, compensation, and employee skills; and (f) any other non-public information which a competitor of the Company could use to the competitive disadvantage of the Company. Notwithstanding the foregoing, it is understood that, at all such times, I am free to use information which is generally known in the trade or industry through no breach of this Agreement or other act or omission by me, and I am free to discuss the terms and conditions of my employment with others to the extent expressly permitted by Section 7 of the National Labor Relations Act.

1.3 Third Party Information. I understand, in addition, that the Company has received and in the future will receive confidential and/or proprietary knowledge, data, or information from third parties (“Third Party Information”).
During my employment and thereafter, I will hold Third Party Information in the strictest confidence and will not disclose to anyone (other than Company personnel who need to know such information in connection with their work for the Company) or use, except in connection with my work for the Company, Third Party Information unless expressly authorized by an authorized officer of the Company in writing.

1.4 Term of Nondisclosure Restrictions. I understand that Proprietary Information and Third Party Information is never to be used or disclosed by me, as provided in this Section 1. If, however, a court decides that this Section 1 or any of its provisions is unenforceable for lack of reasonable temporal limitation and the Agreement or its restriction(s) cannot otherwise be enforced, I agree and the Company agrees that the two (2) year period after the date my employment ends shall be the temporal limitation relevant to the contested restriction, provided, however, that this sentence shall not apply to trade secrets protected without temporal limitation under applicable law.

1.5 No Improper Use of Information of Prior Employers and Others. During my employment by the Company I will not improperly use or disclose any confidential information or trade secrets, if any, of any former employer or any other person to whom I have an obligation of confidentiality, and I will not bring onto the premises of the Company any unpublished documents or any property belonging to any former employer or any other person to whom I have an obligation of confidentiality unless consented to in writing by that former employer or person.

2. ASSIGNMENT OF INVENTIONS.

2.1 Proprietary Rights. The term “Proprietary Rights” shall mean all trade secrets, patents, copyrights, trade marks and other intellectual property rights throughout the world.

2.2 Prior Inventions. Inventions, if any, patented or unpatented, which I made prior to the commencement of my employment with the Company are excluded from the scope of this Agreement. To preclude any possible uncertainty, I have set forth on Exhibit 1 (Prior Inventions) attached hereto a complete list of all Inventions that I have, alone or jointly with others, conceived, developed or reduced to practice or caused to be conceived, developed or reduced to practice prior to the commencement of my employment with the Company, that I consider to be my property or the property of third parties, and that I wish to have excluded from the scope of this Agreement (collectively referred to as “Prior Inventions”). If disclosure of any such Prior Invention would cause me to violate any prior confidentiality agreement, I understand that I am not to list such Prior Inventions in Exhibit 1 but am only to disclose a cursory name for each such invention, a listing of the party(ies) to whom it belongs and the fact that full disclosure as to such inventions has not been made for that reason. A space is provided on Exhibit 1 for such purpose. If no such disclosure is attached, I represent that there are no Prior Inventions. If, in the course of my employment with the Company, I incorporate a Prior Invention into a Company product, process or machine, the Company is hereby granted and shall have a nonexclusive, royalty-free, irrevocable, perpetual, fully-paid, worldwide license (with rights to sublicense through multiple tiers of sublicensees) to make, have made, modify, make derivative works of, publicly perform, use, sell, import, and exercise any and all present and future rights in such Prior Invention. Notwithstanding the foregoing, I agree that I will not incorporate, or permit to be incorporated, Prior Inventions in any Company Inventions without the Company’s prior written consent.

2.3 Assignment of Inventions. Subject to Subsection 2.4, I hereby assign, grant and convey to the Company all my right, title and interest in and to any and all Inventions (and all Proprietary Rights with respect thereto) whether or not patentable or registrable under copyright or similar statutes, made or conceived or reduced to practice or learned by me, either alone or jointly with others, during the period of my employment with the Company. Inventions assigned to the Company or its designee are hereinafter referred to as “Company Inventions.”

2.4 Unassigned or Nonassignable Inventions. I recognize that this Agreement will not be deemed to require assignment of any Invention that I developed entirely on my own time without using the Company’s equipment, supplies, facilities, trade secrets, or Proprietary Information, except for those Inventions that either (i) relate to the Company’s actual or anticipated business, research or development, or (ii) result from or are connected with work performed by me for the Company. In addition, this Agreement does not apply to any Invention which qualifies fully for protection from assignment to the Company under any specifically applicable state law, regulation, rule, or public policy (“Specific Inventions Law”).
2.5 Obligation to Keep Company Informed. During the period of my employment and for six (6) months after termination of my employment with the Company, I will promptly disclose to the Company fully and in writing all Inventions authored, conceived or reduced to practice by me, either alone or jointly with others. In addition, I will promptly disclose to the Company all patent applications filed by me or on my behalf within a year after termination of employment. At the time of each such disclosure, I will advise the Company in writing of any Inventions that I believe fully qualify for protection under the provisions of a Specific Inventions Law; and I will at that time provide to the Company in writing all evidence necessary to substantiate that belief. The Company will keep in confidence and will not use for any purpose or disclose to third parties without my consent any confidential information disclosed in writing to the Company pursuant to this Agreement relating to Inventions that qualify fully for protection under a Specific Inventions Law. I will preserve the confidentiality of any Invention that does not fully qualify for protection under a Specific Inventions Law.

2.6 Ownership of Work Product. I agree that the Company will exclusively own all work product that is made by me (solely or jointly with others) within the scope of my employment, and I hereby irrevocably and unconditionally assign to the Company all right, title, and interest worldwide in and to such work product. I acknowledge that all original works of authorship which are made by me (solely or jointly with others) within the scope of my employment and which are protectable by copyright are “works made for hire,” pursuant to United States Copyright Act (17 U.S.C., Section 101). I understand and agree that I have no right to publish on, submit for publishing, or use for any publication any work product protected by this Section, except as necessary to perform services for the Company.

2.7 Enforcement of Proprietary Rights. I will assist the Company in every proper way to obtain, and from time to time enforce, United States and foreign Proprietary Rights relating to Company Inventions in any and all countries. To that end I will execute, verify and deliver such documents and perform such other acts (including appearances as a witness) as the Company may reasonably request for use in applying for, obtaining, perfecting, evidencing, sustaining and enforcing such Proprietary Rights and the assignment thereof. In addition, I will execute, verify and deliver assignments of such Proprietary Rights to the Company or its designee, including the United States or any third party designated by the Company. My obligation to assist the Company with respect to Proprietary Rights relating to such Company Inventions in any and all countries shall continue beyond the termination of my employment, but the Company shall compensate me at a reasonable rate after my termination for the time actually spent by me at the Company’s request on such assistance.

In the event the Company is unable for any reason, after reasonable effort, to secure my signature on any document needed in connection with the actions specified in the preceding paragraph, I hereby irrevocably designate and appoint the Company and its duly authorized officers and agents as my agent and attorney in fact, which appointment is coupled with an interest, to act for and in my behalf to execute, verify and file any such documents and to do all other lawfully permitted acts to further the purposes of the preceding paragraph with the same legal force and effect as if executed by me. I hereby waive and quitclaim to the Company any and all claims, of any nature whatsoever, which I now or may hereafter have for infringement of any Proprietary Rights assigned under this Agreement to the Company.

3. RECORDS. I agree to keep and maintain adequate and current records (in the form of notes, sketches, drawings and in any other form that may be required by the Company) of all Proprietary Information developed by me and all Inventions made by me during the period of my employment at the Company, which records shall be available to and remain the sole property of the Company at all times.

4. DUTY OF LOYALTY DURING EMPLOYMENT. I agree that during the period of my employment by the Company I will not, without the Company’s express written consent, directly or indirectly engage in any employment or business activity which is directly or indirectly competitive with, or would otherwise conflict with, my employment by the Company.

5. NO SOLICITATION OF EMPLOYEES, CONSULTANTS, CONTRACTORS, OR CUSTOMERS OR POTENTIAL CUSTOMERS. I agree that during the period of my employment and for the one (1) year period after the date my employment ends for any reason, including but not limited to voluntary termination by me or involuntary termination by the Company, I will not, as an officer, director, employee, consultant, owner, partner, or in any other
capacity, either directly or through others, except on behalf of the Company:

5.1 solicit, induce, encourage, or participate in soliciting, inducing, or encouraging any employee of the Company to terminate his or her relationship with the Company;

5.2 hire, employ, or engage in business with or attempt to hire, employ, or engage in business with any person employed by the Company or who has left the employment of the Company within the preceding three (3) months of any such prohibited activity or discuss any potential employment or business association with such person, even if I did not initiate the discussion or seek out the contact;

5.3 solicit, induce or attempt to induce any Customer or Potential Customer, or any consultant or independent contractor with whom I had direct or indirect contact during my employment with the Company or whose identity I learned as a result of my employment with the Company, to terminate, diminish, or materially alter in a manner harmful to the Company its relationship with the Company; or

5.4 solicit, perform, provide or attempt to perform or provide any Conflicting Services (as defined in Section 6 below) for a Customer or Potential Customer.

The parties agree that for purposes of this Agreement, a “Customer or Potential Customer” is any person or entity who or which, at any time during the one (1) year prior to the date my employment with the Company ends, (i) contracted for, was billed for, or received from the Company any product, service or process with which I worked directly or indirectly during my employment by the Company or about which I acquired Proprietary Information; or (ii) was in contact with me or in contact with any other employee, owner, or agent of the Company, of which contact I was or should have been aware, concerning any product, service or process with which I worked directly or indirectly during my employment with the Company or about which I acquired Proprietary Information; or (iii) was solicited by the Company in an effort in which I was involved or of which I was or should have been aware.

6. NON-COMPETE PROVISION. I agree that for the one (1) year period after the date my employment ends for any reason, including but not limited to voluntary termination by me or involuntary termination by the Company, I will not, directly or indirectly, as an officer, director, employee, consultant, owner, manager, member, partner, or in any other capacity solicit, perform, or provide, or attempt to perform or provide Conflicting Services anywhere in the world where the Company conducts business, including but not limited to locations where the Company performs research or development activities related to the Company’s products, services or processes (such locations the “Restricted Territory”), nor will I assist another person to solicit, perform or provide or attempt to perform or provide Conflicting Services in the Restricted Territory.

The parties agree that for purposes of this Agreement, “Conflicting Services” means any product, service, or process or the research and development thereof, of any person or organization other than the Company that has antibiotics as its principal business, unless otherwise expressly excluded from this definition in advance by the Company’s Board of Directors.

7. REASONABLENESS OF RESTRICTIONS.

7.1 I agree that I have read this entire Agreement and understand it. I agree that this Agreement does not prevent me from earning a living or pursuing my career and that I have the ability to secure other non-competitive employment using my marketable skills. I agree that the restrictions contained in this Agreement are reasonable, proper, and necessitated by the Company’s legitimate business interests, including without limitation, the Company’s Proprietary Rights, Proprietary Information and the goodwill of its customers. I represent and agree that I am entering into this Agreement freely and with knowledge of its contents with the intent to be bound by the Agreement and the restrictions contained in it.

7.2 In the event that a court finds this Agreement, or any of its restrictions, to be ambiguous, unenforceable, or invalid, the Company and I agree that the court shall read the Agreement as a whole and interpret the restriction(s) at issue to be enforceable and valid to the maximum extent allowed by law.

7.3 If the court declines to enforce this Agreement in the manner provided in subsection 7.2, I and the Company agree that this Agreement will be automatically modified to provide the Company with the maximum protection of its business interests allowed by law and I agree to be bound by this Agreement as modified.
8. NO CONFLICTING AGREEMENT OR OBLIGATION. I represent that my performance of all the terms of this Agreement and as an employee of the Company does not and will not breach any agreement or obligation of any kind to keep in confidence information acquired by me in confidence or in trust prior to my employment by the Company. I have not entered into, and I agree I will not enter into, any agreement either written or oral in conflict with this Agreement.

9. RETURN OF COMPANY PROPERTY. Upon termination of my employment or upon Company’s request at any other time, I will deliver to Company all of Company’s property, equipment, and documents, together with all copies thereof, and any other material containing or disclosing any Inventions, Third Party Information or Proprietary Information and certify in writing that I have fully complied with the foregoing obligation. I agree that I will not copy, delete, or alter any information contained upon my Company computer or Company equipment before I return it to Company. In addition, if I have used any personal computer, server, or e-mail system to receive, store, review, prepare or transmit any Company information, including but not limited to, Proprietary Information and then permanently delete and expunge such Proprietary Information from those systems; and I agree to provide the Company with a computer-useable copy of all such Proprietary Information and then certify in writing that I have fully complied with the requirements of this section.

10. LEGAL AND EQUITABLE REMEDIES.

10.1 I agree that it may be impossible to assess the damages caused by my violation of this Agreement or any of its terms. I agree that any threatened or actual violation of this Agreement or any of its terms will constitute immediate and irreparable injury to the Company and the Company shall have the right to enforce this Agreement and any of its provisions by injunction, specific performance or other equitable relief, without bond and without prejudice to any other rights and remedies that the Company may have for a breach or threatened breach of this Agreement.

10.2 I agree that if the Company is successful in whole or in part in any legal or equitable action against me under this Agreement, the Company shall be entitled to payment of all costs, including reasonable attorney’s fees, from me.

10.3 In the event the Company enforces this Agreement through a court order, I agree that the restrictions of Sections 5 and 6 shall remain in effect for a period of twelve (12) months from the effective date of the Order enforcing the Agreement.

11. NOTICES. Any notices required or permitted under this Agreement will be given to the Company at its headquarters location at the time notice is given, labeled “Attention Chief Executive Officer,” and to me at my address as listed on the Company payroll, or at such other address as the Company or I may designate by written notice to the other. Notice will be effective upon receipt or refusal of delivery. If delivered by certified or registered mail, notice will be considered to have been given five (5) business days after it was mailed, as evidenced by the postmark. If delivered by courier or express mail service, notice will be considered to have been given on the delivery date reflected by the courier or express mail service receipt.

12. PUBLICATION OF THIS AGREEMENT TO SUBSEQUENT EMPLOYERS OR BUSINESS ASSOCIATES OF EMPLOYEE.

12.1 If I am offered employment or the opportunity to enter into any business venture as owner, partner, consultant or other capacity while the restrictions described in Sections 5 and 6 of this Agreement are in effect I agree to inform my potential employer, partner, co-owner and/or others involved in managing the business with which I have an opportunity to be associated of my obligations under this Agreement and also agree to provide such person or persons with a copy of this Agreement.

12.2 I agree to inform the Company of all employment and business ventures which I enter into while the restrictions described in Sections 5 and 6 of this Agreement are in effect and I also authorize the Company to provide copies of this Agreement to my employer, partner, co-owner and/or others involved in managing the business with which I am employed or associated and to make such persons aware of my obligations under this Agreement.
13. **GENERAL PROVISIONS.**

13.1 Governing Law; Consent to Personal Jurisdiction. This Agreement will be governed by and construed according to the laws of the Commonwealth of Massachusetts as such laws are applied to agreements entered into and to be performed entirely within the Commonwealth of Massachusetts between Massachusetts residents. I hereby expressly consent to the personal jurisdiction and venue of the state and federal courts located in the Commonwealth of Massachusetts for any lawsuit filed there against me by Company arising from or related to this Agreement.

13.2 Severability. In case any one or more of the provisions, subsections, or sentences contained in this Agreement shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect the other provisions of this Agreement, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained in this Agreement. If moreover, any one or more of the provisions contained in this Agreement shall for any reason be held to be excessively broad as to duration, geographical scope, activity or subject, it shall be construed by limiting and reducing it, so as to be enforceable to the extent compatible with the applicable law as it shall then appear.

13.3 Successors and Assigns. This Agreement is for my benefit and the benefit of the Company, its successors, assigns, parent corporations, subsidiaries, affiliates, and purchasers, and will be binding upon my heirs, executors, administrators and other legal representatives.

13.4 Survival. The provisions of this Agreement shall survive the termination of my employment, regardless of the reason, and the assignment of this Agreement by the Company to any successor in interest or other assignee. I understand that my obligations under this Agreement will continue in accordance with its express terms regardless of any change in my title, position, status, role, duties, salary, compensation or benefits or other terms and conditions of employment or service.

13.5 Employment At-Will. I agree and understand that nothing in this Agreement shall change my at-will employment status or confer any right with respect to continuation of employment by the Company, nor shall it interfere in any way with my right or the Company’s right to terminate my employment at any time, with or without cause or advance notice.

13.6 Waiver. No waiver by the Company of any breach of this Agreement shall be a waiver of any preceding or succeeding breach. No waiver by the Company of any right under this Agreement shall be construed as a waiver of any other right. The Company shall not be required to give notice to enforce strict adherence to all terms of this Agreement.

13.7 Advice of Counsel. I ACKNOWLEDGE THAT, IN EXECUTING THIS AGREEMENT, I HAVE HAD THE OPPORTUNITY TO SEEK THE ADVICE OF INDEPENDENT LEGAL COUNSEL, AND I HAVE READ AND UNDERSTOOD ALL OF THE TERMS AND PROVISIONS OF THIS AGREEMENT. THIS AGREEMENT SHALL NOT BE CONSTRUED AGAINST ANY PARTY BY REASON OF THE DRAFTING OR PREPARATION OF THIS AGREEMENT.

13.8 Entire Agreement. The obligations pursuant to Sections 1 and 2 (except Subsection 2.6) of this Agreement shall apply to any time during which I was previously engaged, or am in the future engaged, by the Company as a consultant if no other agreement governs nondisclosure and assignment of inventions during such period. This Agreement is the final, complete and exclusive agreement of the parties with respect to the subject matter of this Agreement and supersedes and merges all prior discussions between us. No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, will be effective unless in writing and signed by the party to be charged. Any subsequent change or changes in my title, position, status, role, duties, salary, compensation or benefits or other terms and conditions of employment or service will not affect the validity or scope of this Agreement.
This Agreement shall be effective as of the first day of my employment with the Company.

DOUGLAS PAGAN:
I have read, understand, and accept this agreement and have been given the opportunity to review it with independent legal counsel.

/s/ DOUGLAS PAGAN  (Signature)
Date: December 1, 2014
Address: 48 Winthrop Street, Winchester, MA 01890

PARATEK PHARMACEUTICALS, INC.
Accepted and agreed:

/s/ MICHAEL F. BIGHAM  (Signature)
By: Michael F. Bigham
Title: Chairman and CEO
Date: November 20, 2014
Address: 75 Kneeland Street, Boston, Massachusetts 02111
TO: Paratek Pharmaceuticals, Inc.

FROM: Douglas Pagan

DATE: December 1, 2014

SUBJECT: Prior Inventions

1. Except as listed in Section 2 below, the following is a complete list of all inventions or improvements relevant to the subject matter of my employment by Paratek Pharmaceuticals, Inc. (the “Company”) that have been made or conceived or first reduced to practice by me alone or jointly with others prior to my engagement by the Company:

☐ No inventions or improvements.

☐ See below:

☐ Additional sheets attached.

2. Due to a prior confidentiality agreement, I cannot complete the disclosure under Section 1 above with respect to inventions or improvements generally listed below, the proprietary rights and duty of confidentiality with respect to which I owe to the following party(ies):

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☐ Additional sheets attached.

A-8
February 4, 2015
Michael F. Bigham
By Hand

Re: Amended and Restated Employment Agreement
Dear Michael:

On behalf of the Board of Directors (the “Board”) of Paratek Pharmaceuticals, Inc. (“Paratek” or the “Company”) I am pleased to offer you continued employment under the terms of this Amended and Restated Employment Agreement (the “Agreement”). In this Agreement, you and the Company hereby amend, supersede, and restate in its entirety that certain offer letter agreement between the Company and you dated June 26, 2014 (the “Employment Agreement”).

Employment Position and Duties
You will be employed in the positions of Chairman of the Board and Chief Executive Officer (“CEO”). You will be expected to perform the customary duties of your positions, duties specified in the Bylaws of the Company, and as may be required by the Board. You will report to the Board, and work at the Company’s corporate headquarters in Boston, Massachusetts. The Company reserves the right to reasonably require you to perform your duties at places other than its corporate headquarters from time to time, and to require reasonable business travel, including international travel, at the Company’s expense.

You will generally devote an overall average of fifty percent (50%) of your business time and attention to the business of the Company. At all times, the Company shall provide you with full-time executive secretarial support based at your Company office.

Your employment relationship with the Company will also be governed by the general employment policies and practices of the Company, except that if the terms of this Agreement conflict, this Agreement will control. The Board reserves the right to change your position, duties, and work location, from time to time in its discretion.

Board Membership
You agree to continue to serve as a director of the Company and to continue to be employed as Chairman of the Board. You agree that in the event your employment with the Company is terminated for any reason, either voluntarily or involuntarily, with or without Cause, you shall resign as a member of the Board and as its Chairman simultaneously with the termination of your employment.

Base Salary
You will earn a salary at the rate of $31,250.00 per month ($375,000 annualized), less payroll deductions and withholdings (“Base Salary”), payable on the Company’s regular payroll schedule. The Base Salary will be reviewed on an annual or more frequent basis by the Board (or any authorized committee thereof), and may be subject to increase in the discretion of the Board (or any authorized committee thereof).
Discretionary Performance Bonus

You will be eligible to earn a discretionary performance bonus of up to forty percent (40%) of Base Salary, subject to applicable payroll deductions and withholdings ("Bonus"), based upon the Board’s assessment of your performance, and the Company’s attainment of written targeted goals determined by the Board. Following the close of each calendar year, the Board will determine in its discretion whether you have earned a Bonus, and the amount of any Bonus. You will be eligible to earn a Bonus for any full calendar year for which you are employed by the Company as of December 31st. The Bonus, if earned, will be paid no later than March 15 of the calendar year after the year to which it relates.

Employee Benefits

As a regular employee, you will be eligible to participate in the Company’s standard employee benefits, pursuant to the terms and conditions of the benefit plans and applicable policies, and for any additional benefits provided to the Company’s executive employees generally. You will also be entitled to three (3) weeks of paid vacation each calendar year, in accordance with the terms of the Company’s vacation policy. The Company may change employee benefits from time to time in its discretion. Details about these benefits are provided in the employee handbook and Summary Plan Descriptions, available for your review.

Business Expenses

The Company will pay or reimburse you for all reasonable business expenses incurred or paid by you in the performance of your duties and responsibilities for the Company subject to such reasonable substantiation and documentation as may be required by the Company, and subject to any maximum annual limit and other restrictions on or policies governing such expenses as set by the Company from time to time.

Equity Compensation

Under the Paratek Pharmaceuticals, Inc. 2014 Equity Incentive Plan (the “Equity Plan”) you were granted options to purchase shares of the Company’s Common Stock (“Options”), vesting in three equal tranches of 145,093 Options shares each during your continued service with the Company (as defined in the Equity Plan). Your Options have been amended such that two of the three tranches shall vest in part based on performance milestones, as specified by the Board.

Notwithstanding the foregoing, the Options and any other equity awards that may be granted to you by the Company after June 26, 2014 (together with the Options, the “Company Equity”) will be subject to earlier vesting upon your termination by the Company without Cause or by you with Good Reason, or upon a Change in Control, under the conditions described below. For the avoidance of doubt, any award agreement granting you Company Equity shall provide that the award cannot be amended without your consent.
At-Will Employment Relationship

You may terminate your employment with the Company at any time and for any reason whatsoever simply by notifying the Company. Likewise, the Company may terminate your employment at any time, with or without Cause, and with or without advance notice. Your employment at-will status can only be modified in a written agreement approved by the Board and signed by you and a duly authorized Member of the Board.

Payments upon Termination other than without Cause or with Good Reason

Upon termination of your employment for any reason other than by the Company without Cause or by you with Good Reason, you shall be paid all accrued but unpaid Base Salary, any earned but unpaid Bonus, reimbursement for business expenses incurred by you but not yet paid to you as of the date your employment terminates, and all accrued but unused vacation (collectively, the “Accrued Payments”). Your Options shall terminate, as to all unvested shares, as of your termination date.

Termination without Cause or with Good Reason

Upon termination of your employment at any time (whether before, in connection with, or following a Change in Control) by the Company without Cause or by you with Good Reason, each as defined below, you will receive the Accrued Payments. In addition, subject to your fulfillment of the Release Obligation, as defined below, you will be eligible for the following severance benefits:

1. **Cash Severance Payments**. You will be eligible to receive cash severance equal to twelve (12) months of Base Salary following the termination date, subject to payroll withholding and deduction (“Severance Payments”), and paid according to the Company’s regular payroll procedures. Payment of Severance Payments shall commence on the sixtieth (60th) day following your employment termination, which initial payment shall include a lump sum payment equal to the aggregate semi-monthly installments that would otherwise have been due during the period between the termination date and the sixtieth (60th) day, but for the sixty (60)-day delay in this provision. Thereafter, the remaining installments shall be paid on the Company’s regular paydays.

2. **Pro-Rata Severance Bonus**. You will also be eligible to receive an amount (the “Pro-Rata Bonus”) equal to the Bonus you would have earned for the year in which your employment terminates, prorated by multiplying the Bonus that you would have earned if you had remained employed through December 31 by the portion of the year that you had actually remained employed, and subject to payroll withholding and deduction. The determination by the Board of the Bonus amount you would have earned shall be based on actual performance for the full calendar year, except that any applicable subjective performance conditions will be disregarded in determining actual performance, and the entire amount of the Bonus, if any, will be determined based on applicable objective performance conditions. Any Pro-Rata Bonus will be paid at the same time bonuses are paid to the other executives of the Company, but in no event later than March 15 of the calendar year after the year to which it relates.
3. Paid Health Care Coverage; Other Benefits Continuation.

a. If at the time of your employment termination you participate in health care coverage through the Company’s plan, then provided that you timely elect continued coverage under COBRA, the Company will pay your COBRA premiums to continue your coverage (including coverage for eligible dependents, if applicable) (“COBRA Premiums”) through the period (the “COBRA Premium Period”) starting on the termination date and ending on the earliest to occur of the date: (i) twelve (12) months after the termination date; (ii) you become eligible for group health insurance coverage through a new employer; or (iii) you cease to be eligible for COBRA continuation coverage for any reason, including plan termination. In the event you become covered under another employer’s group health plan or otherwise cease to be eligible for COBRA during the COBRA Premium Period, you must immediately notify the Company of such event.

b. Notwithstanding the foregoing, if the payment by the Company of the COBRA Premiums will subject or expose the Company to taxes or penalties, you and the Company agree to renegotiate the provisions of paragraph 3(a) in good faith and enter into a substitute arrangement pursuant to which the Company will not be subjected or exposed to taxes or penalties and you will be provided with payments or benefits with an economic value that is no less than the economic value of the COBRA Premiums.

4. Equity Acceleration. All outstanding unvested Company Equity shall vest in full, effective as of the termination date of your employment.

Definitions

For purposes of this Agreement, the following definitions shall apply:

1. “Cause” shall mean the occurrence of any of the following events: (a) your conviction of any felony or any misdemeanor involving fraud or embezzlement under the laws of the United States or any state thereof; (b) your commission of, or participation in, any willful act of fraud, embezzlement or dishonesty against the Company or a Company affiliate; (c) your intentional, material violation of any contract or agreement between you and the Company or a Company affiliate or of any statutory duty owed to the Company or a Company affiliate which, if curable, remains uncured after a period of thirty (30) days following your receipt of notice from the Company that it deems such conduct Cause for termination of your employment; (d) your intentional and unauthorized use or disclosure of the Company’s or a Company affiliate’s confidential information or trade secrets; (e) the refusal or willful omission by you to perform any duties required of you by the Board, which continues after a period of thirty (30) days following your receipt of notice from the Company that it deems such conduct Cause for termination of your employment hereunder; or (f) your gross misconduct, which continues after a period of thirty (30) days following your receipt of notice from the Company that it deems such conduct Cause for termination of your employment.

2. “Good Reason” shall exist for resignation from employment with the Company if any of the following actions are taken by the Company without your prior written consent: (a) a material reduction in your Base Salary or Bonus target percentage of Base Salary; (b) any loss
of or change in either of your positions and titles as Chairman of the Board and CEO, or any other reduction in your title, authority, duties, or responsibilities to a level materially inconsistent with the position and titles you hold; (c) a change in your reporting structure such that you no longer report directly to the Company’s Board; or (d) a relocation of your principal place of employment to a place that increases your one-way commute by more than thirty-five (35) miles as compared to your then-current principal place of employment immediately prior to such relocation. In order for you to resign for Good Reason, each of the following requirements must be met: (w) you must provide written notice to the Board within thirty (30) days after the first occurrence of the event giving rise to Good Reason setting forth the basis for your resignation, (x) you must allow the Company at least thirty (30) days from receipt of such written notice (the “Cure Period”) to cure such event, (y) such event is not reasonably cured by the Company within the Cure Period, and (z) you must resign from all positions you then hold with the Company not later than sixty (60) days after the expiration of the Cure Period.

3. “Release Obligation” means that: (a) you have signed a general release and waiver of claims in favor of the Company and its affiliates, as part of a termination agreement reasonably acceptable to you and to the Company, and (b) you have allowed the release and waiver to become fully effective without revocation during any applicable revocation period.

Change in Control

Upon a Change in Control, all outstanding unvested Company Equity will either be accelerated or assumed consistent with the terms of the Equity Plan, and as the award agreements for such Company Equity will so provide; provided, however, that if in connection with a Change in Control, the vesting of any incentive equity issued by the Company to any other employee, director or service provider will be accelerated, then any outstanding unvested Company Equity which you hold shall also vest in full immediately prior to such Change in Control.

Upon the termination of your employment by the Company without Cause, or by you with Good Reason, in either case during a time period starting on the date three (3) months before the closing of a Change in Control and ending on the date twenty-four (24) months after the closing of a Change in Control, provided that you meet the Release Obligation and provide continued services through your termination date, then all outstanding unvested Company Equity shall vest in full, effective as of the termination date of your employment.

A “Change in Control” shall mean any of the following: (a) a merger or consolidation in which the Company is a constituent party (or if a subsidiary of the Company is a constituent party and the Company issues shares of its capital stock pursuant to such merger or consolidation), other than a merger or consolidation in which the voting securities of the Company outstanding immediately prior to such merger or consolidation continue to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the combined voting power of the voting securities of the surviving entity outstanding immediately after such merger or consolidation, or (b) any transaction or series of related transactions in which in excess of fifty percent (50%) of the Company’s voting power is transferred, other than the sale by the Company of stock in transactions the primary purpose of which is to raise capital for the Company’s operations and activities, or (c) a sale, lease, exclusive license or other disposition of all or substantially all (as determined by the Board in its sole discretion) of the assets of the Company.
Section 280G

If any payment or benefit (including payments and benefits pursuant to this Agreement) that you would receive in connection with a Change in Control from the Company or otherwise ("Transaction Payment") would (i) constitute a “parachute payment” within the meaning of Section 280G of the Internal Revenue Code (the “Code”), and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the “Excise Tax”), then the Company shall cause to be determined, before any amounts of the Transaction Payment are paid to you, which of the following two alternative forms of payment would result in your receipt, on an after-tax basis, of the greater amount of the Transaction Payment notwithstanding that all or some portion of the Transaction Payment may be subject to the Excise Tax: (1) payment in full of the entire amount of the Transaction Payment (a “Full Payment”), or (2) payment of only a part of the Transaction Payment so that you receive the largest payment possible without the imposition of the Excise Tax (a “Reduced Payment”). For purposes of determining whether to make a Full Payment or a Reduced Payment, the Company shall cause to be taken into account all applicable federal, state and local income and employment taxes and the Excise Tax (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes). If a Reduced Payment is made, (x) you shall have no rights to any additional payments and/or benefits constituting the Transaction Payment and (y) reduction in payments and/or benefits shall occur in the manner that results in the greatest economic benefit to you as determined in this paragraph. If more than one method of reduction will result in the same economic benefit, the portions of the Transaction Payment shall be reduced pro rata. Unless you and the Company otherwise agree in writing, any determination required under this paragraph shall be made in writing by the Company’s independent public accountants (the “Accountants”), whose determination shall be conclusive and binding upon you and the Company for all purposes. For purposes of making the calculations required by this paragraph, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. You and the Company shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this paragraph. The Company shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this paragraph as well as any costs incurred by you with the Accountants for tax planning under Sections 280G and 4999 of the Code.

Compliance with Proprietary Information Agreement and Company Policies

As a condition of employment, you have signed and must continue to comply with the Company’s standard form of Employee Proprietary Information, Inventions Assignment, Non-Competition and Non-Solicitation Agreement (the “Proprietary Information Agreement”) which prohibits unauthorized use or disclosure of the Company’s proprietary information, among other obligations. As a Paratek employee, you will be expected to abide by Company policies and practices, as may be changed from time to time in the Company’s discretion, and acknowledge in writing that you have read the Company’s employee handbook.

Protection of Third Party Information

In your work for the Company, you will be expected not to use or disclose any confidential information, including trade secrets, of any former employer or other person to whom you have an obligation of confidentiality. Rather, you will be expected to use only that information which is generally known and used by persons with training and experience comparable to your own, which is
common knowledge in the industry or otherwise legally in the public domain, or which is otherwise provided or developed by the Company. You agree that you will not bring onto Company premises, or use in the performance of your duties, any unpublished documents or property belonging to any former employer or other person to whom you have an obligation of confidentiality. You hereby represent that you have disclosed to the Company any contract you have signed that may restrict your activities on behalf of the Company.

Outside Activities
You have identified certain outside business activities in which you have been and will continue to be engaged. Provided that such activities do not interfere with your duties for Paratek and your agreed time commitments to Paratek, the Company has no objection to your conducting the specified business activities during your employment with Paratek. You may also engage in any other business, civic and not-for-profit activities so long as such activities do not materially interfere with the performance of your duties under this Agreement and are not otherwise in conflict with the Proprietary Information Agreement. You may purchase or otherwise acquire up to one percent (1%), or any higher percentage if agreed to by the Board, of any class of securities of any enterprise if such securities are listed on any national or regional securities exchange, provided that you refrain from participating in the business activities of such enterprise.

Agreement to Arbitrate
To ensure the rapid and economical resolution of disputes that may arise in connection with your employment with the Company, you and the Company both agree that any and all disputes, claims, or causes of action, in law or equity, including but not limited to statutory claims, arising from or relating to the enforcement, breach, performance, or interpretation of this Agreement, your employment with the Company, or the termination of your employment with the Company, will be resolved pursuant to the Federal Arbitration Act, 9 U.S.C. §1-16, and to the fullest extent permitted by law, by final, binding and confidential arbitration conducted in Boston, Massachusetts by JAMS, Inc. (“JAMS”) or its successors. Both you and the Company acknowledge that by agreeing to this arbitration procedure, you each waive the right to resolve any such dispute through a trial by jury or judge or administrative proceeding.

Any such arbitration proceeding will be governed by JAMS’ then applicable rules and procedures for employment disputes, which can be found at http://www.jamsadr.com/rules-clauses/, and which will be provided to you upon request. In any such proceeding, the arbitrator shall: (i) have the authority to compel adequate discovery for the resolution of the dispute and to award such relief as would otherwise be permitted by law; and (ii) issue a written arbitration decision including the arbitrator’s essential findings and conclusions and a statement of the award. You and the Company each shall be entitled to all rights and remedies that either would be entitled to pursue in a court of law. Nothing in this Agreement is intended to prevent either the Company or you from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration pursuant to applicable law.

Entire Agreement; Contingencies
This Agreement, together with your Proprietary Information Agreement, forms the complete and exclusive statement of your employment agreement with the Company. It supersedes any other prior
agreements or promises made to you by anyone, whether oral or written, including the Employment Agreement. Changes in your employment terms, other than those changes expressly reserved to the Company’s or Board’s discretion in this Agreement, require a written modification approved by the Board and signed by a duly authorized Member of the Board.

This Agreement will bind the heirs, personal representatives, successors and assigns of both you and the Company, and inure to the benefit of both you and the Company, their heirs, successors and assigns. If any provision of this Agreement is determined to be invalid or unenforceable, in whole or in part, this determination shall not affect any other provision of this Agreement and the provision in question shall be modified so as to be rendered enforceable in a manner consistent with the intent of the parties insofar as possible under applicable law.

This Agreement shall be construed and enforced in accordance with the laws of the Commonwealth of Massachusetts without regard to conflicts of law principles. Any waiver of a breach of this Agreement, or rights hereunder, shall be in writing and shall not be deemed to be a waiver of any successive breach or rights hereunder. This Agreement may be executed in counterparts which shall be deemed to be part of one original, and pdf or other facsimile signatures shall be equivalent to original signatures.

[remainder of page intentionally left blank]
Please sign and date this Agreement to indicate your acceptance of continued employment at Paratek under the terms described above. We look forward to a continued productive and enjoyable work relationship.

Sincerely,

Paratek Pharmaceuticals, Inc.

/s/ RICHARD LIM
Richard Lim, Director, on behalf of the Board

Accepted:

/s/ MICHAEL F. BIGHAM
3/25/2015

Michael F. Bigham

Date
February 4, 2015

Evan Loh, M.D.
423 Brookway Road
Merion Station, PA 19066

Re: Amended and Restated Employment Agreement

Dear Evan:

On behalf of Paratek Pharmaceuticals, Inc. (“Paratek” or the “Company”) I am pleased to offer you continued employment under the terms of this Amended and Restated Employment Agreement (the “Agreement”). In this Agreement, you and the Company hereby amend, supersede, and restate in its entirety that certain offer letter agreement between the Company and you dated September 18, 2014 (the “Employment Agreement”).

Employment Position and Duties

You will continue to be employed in the position of President and Chief Medical Officer. You will be expected to perform the customary duties of your positions, duties specified in the Bylaws of the Company, and as may be required by the Company’s Board of Directors (the “Board”). You will report to the Chief Executive Officer and work at the Company’s Philadelphia facility. During your employment with the Company, you will devote your full-time best efforts and business time and attention to the business of the Company. As an exempt salaried employee, you will be expected to be available and working during the Company’s regular business hours, and such additional time as appropriate to manage your responsibilities. The Company reserves the right to reasonably require you to perform your duties at places other than its Philadelphia facility from time to time, and to require reasonable business travel, including international travel, at the Company’s expense.

Your employment relationship with the Company will also be governed by the general employment policies and practices of the Company, except that if the terms of this Agreement conflict, this Agreement will control.

Board Membership

You agree to continue to serve as a member of the Company’s Board while you remain employed as the President and Chief Medical Officer of the Company. You agree that in the event your employment with the Company is terminated for any reason, either voluntarily or involuntarily, with or without Cause, you shall resign as a member of the Board simultaneously with the termination of your employment.

Base Salary

You will continue to earn a salary at the rate of $28,750 per month ($345,000 annualized), less payroll deductions and withholdings (“Base Salary”), payable on the Company’s regular payroll schedule. The Base Salary will be reviewed on an annual or more frequent basis by the Board (or any authorized committee thereof), and is subject to change in the discretion of the Board (or any authorized committee thereof).
Discretionary Performance Bonus

You are currently eligible to earn a discretionary performance bonus of up to thirty-five percent (35%) of your Base Salary, subject to applicable payroll deductions and withholdings ("Bonus"), based upon the Board’s assessment of your performance, and the Company’s attainment of written targeted goals as determined by the Board in its sole discretion. Following the close of each calendar year, the Board will determine in its discretion whether you have earned a Bonus, and the amount of any Bonus. You will be eligible to earn a Bonus for any full calendar year provided that you are employed by the Company as of December 31 of that year. The Bonus, if earned, will be paid no later than March 15 of the calendar year after the year to which it relates.

Employee Benefits

As a regular employee, you will be eligible to participate in the Company’s standard employee benefits, pursuant to the terms and conditions of the benefit plans and applicable policies, and for any additional benefits provided to the Company’s executive employees generally. You will also be eligible to accrue paid vacation in accordance with the terms of the Company’s vacation policy. The Company may change employee benefits from time to time in its discretion. Details about these benefits are provided in the employee handbook and Summary Plan Descriptions, available for your review.

Business Expenses

The Company will pay or reimburse you for all reasonable business expenses incurred or paid by you in the performance of your duties and responsibilities for the Company, subject to such reasonable substantiation and documentation as may be required by the Company, and subject to any maximum annual limit and other restrictions on or policies governing such expenses as set by the Company from time to time.

Equity Compensation

Under the Paratek Pharmaceuticals, Inc. 2014 Equity Incentive Plan (the “Equity Plan”) you were granted options to purchase shares of the Company’s Common Stock (“Options”), vesting in three equal tranches of 78,957 Options shares each during your continued service with the Company (as defined in the Equity Plan). Your Options have been amended such that two of the three tranches shall vest in part based on performance milestones, as specified by the Board.

At-Will Employment Relationship

You may terminate your employment with the Company at any time, with or without Good Reason, and with or without advance notice, and for any reason whatsoever simply by notifying the Company. Likewise, the Company may terminate your employment at any time, with or without Cause, and with or without advance notice. Your employment at-will status can only be modified in a written agreement approved by the Board and signed by you and a duly authorized Member of the Board.

Payments upon Termination other than without Cause or with Good Reason

Upon termination of your employment for any reason other than by the Company without Cause or
by you with Good Reason, you shall be paid all accrued but unpaid Base Salary, any earned but unpaid bonus, reimbursement for business expenses incurred by you but not yet paid to you as of the date your employment terminates, and all accrued but unused vacation (collectively, the “Accrued Payments”). Your Options shall terminate, as to all unvested shares, as of your termination date.

**Termination without Cause or with Good Reason**

Upon termination of your employment at any time by the Company without Cause or by you with Good Reason, each as defined below, you will receive the Accrued Payments. In addition, subject to your fulfillment of the Release Obligation, as defined below, you will be eligible for the following severance benefits:

1. **Cash Severance Payments.** You will be eligible to receive cash severance equal to twelve (12) months of Base Salary following the termination date, subject to payroll withholding and deduction (“Severance Payments”), and paid according to the Company’s regular payroll procedures. Payment of Severance Payments shall commence on the sixtieth (60th) day following your employment termination, which initial payment shall include a lump sum payment equal to the aggregate semi-monthly installments that would otherwise have been due during the period between the termination date and the sixtieth (60th) day, but for the sixty (60)-day delay in this provision. Thereafter, the remaining installments shall be paid on the Company’s regular paydays.

2. **Pro-Rata Severance Bonus.** You will also be eligible to receive an amount (the “Pro-Rata Bonus”) equal to the Bonus you would have earned for the year in which your employment terminates, prorated by multiplying the Bonus that you would have earned if you had remained employed through December 31 by the portion of the year that you had actually remained employed, and subject to payroll withholding and deduction. The determination by the Board of the Bonus amount you would have earned shall be based on actual performance for the full calendar year, except that any applicable subjective performance conditions will be disregarded in determining actual performance, and the entire amount of the Bonus, if any, will be determined based on applicable objective performance conditions. Any Pro-Rata Bonus will be paid at the same time bonuses are paid to the other executives of the Company, but in no event later than March 15 of the calendar year after the year to which it relates.

**Definitions**

For purposes of this Agreement, the following definitions shall apply:

1. “Cause” shall mean the occurrence of any of the following events: (a) your conviction of any felony or any crime involving fraud, embezzlement, dishonesty or moral turpitude under the laws of the United States or any state thereof; (b) your attempted commission of, or participation in, a fraud, embezzlement or act of material dishonesty against the Company or a Company affiliate; (c) your intentional, material violation of any contract or agreement between you and the Company or a Company affiliate or of any statutory duty owed to the Company or a Company affiliate; (d) your intentional unauthorized use or disclosure of the Company’s or a Company affiliate’s confidential information or trade secrets; (e) your refusal or failure to perform any duties required of you, if such duties are consistent with duties customary for your position, or other persistent unsatisfactory performance or neglect of your job duties, which continues after a period of thirty (30) days following your receipt of notice from the Company that it deems such conduct Cause for termination of your employment hereunder; or (f) your gross misconduct.
2. “Good Reason” shall exist for resignation from employment with the Company if any of the following actions are taken by the Company without your prior consent: (a) a material reduction in your Base Salary or Bonus target percentage of Base Salary, unless the salaries or bonus target percentages of other executive officers of the Company are correspondingly reduced; (b) a removal from the office of President; or (c) a relocation of your principal place of employment to a place that increases your one-way commute by more than thirty-five (35) miles as compared to your then-current principal place of employment immediately prior to such relocation. In order for you to resign for Good Reason, each of the following requirements must be met: (w) you must provide written notice to the Board within thirty (30) days after the first occurrence of the event giving rise to Good Reason setting forth the basis for your resignation, (x) you must allow the Company at least thirty (30) days from receipt of such written notice (the “Cure Period”) to cure such event, (y) such event is not reasonably cured by the Company within the Cure Period, and (z) you must resign from all positions you then hold with the Company not later than sixty (60) days after the expiration of the Cure Period.

3. “Release Obligation” means that: (a) you have signed a general release and waiver of claims in favor of the Company and its affiliates, as part of a termination agreement acceptable to the Company that contains standard provisions including a non-disparagement provision and restrictive covenants to the maximum enforceable extent including without limitation a noncompetition covenant during the period you are eligible to receive Severance Payments, and (b) you have allowed the release and waiver to become fully effective without revocation during any applicable revocation period.

Change in Control

Upon the termination of your employment by the Company without Cause, or by you with Good Reason, in either case during a time period starting on the date ninety (90) days before the closing of a Change in Control and ending on the date twelve (12) months after the closing of a Change in Control, provided that you meet the Release Obligation and you provide continued services through your termination date, then your Options shall vest in full (“Accelerated Vesting”), effective as of the termination date of your employment.

A “Change in Control” shall mean any of the following: (a) a merger or consolidation in which the Company is a constituent party (or if a subsidiary of the Company is a constituent party and the Company issues shares of its capital stock pursuant to such merger or consolidation), other than a merger or consolidation in which the voting securities of the Company outstanding immediately prior to such merger or consolidation continue to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the combined voting power of the voting securities of the surviving entity immediately after such merger or consolidation, or (b) any transaction or series of related transactions in which in excess of fifty percent (50%) of the Company’s voting power is transferred, other than the sale by the Company of stock in transactions the primary purpose of which is to raise capital for the Company’s operations and activities, or (c) a sale, lease, exclusive license or other disposition of all or substantially all (as determined by the Board in its sole discretion) of the assets of the Company.
Section 280G

If any payment or benefit (including payments and benefits pursuant to this Agreement) that you would receive in connection with a Change in Control from the Company or otherwise ("Transaction Payment") would (i) constitute a “parachute payment” within the meaning of Section 280G of the Internal Revenue Code (the “Code”), and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the “Excise Tax”), then the Company shall cause to be determined, before any amounts of the Transaction Payment are paid to you, which of the following two alternative forms of payment would result in your receipt, on an after-tax basis, of the greater amount of the Transaction Payment notwithstanding that all or some portion of the Transaction Payment may be subject to the Excise Tax: (1) payment in full of the entire amount of the Transaction Payment (a “Full Payment”), or (2) payment of only a part of the Transaction Payment so that you receive the largest payment possible without the imposition of the Excise Tax (a “Reduced Payment”). For purposes of determining whether to make a Full Payment or a Reduced Payment, the Company shall cause to be taken into account all applicable federal, state and local income and employment taxes and the Excise Tax (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes). If a Reduced Payment is made, (x) you shall have no rights to any additional payments and/or benefits constituting the Transaction Payment, and (y) reduction in payments and/or benefits shall occur in the manner that results in the greatest economic benefit to you as determined in this paragraph. If more than one method of reduction will result in the same economic benefit, the portions of the Transaction Payment shall be reduced pro rata. Unless you and the Company otherwise agree in writing, any determination required under this paragraph shall be made in writing by the Company’s independent public accountants (the “Accountants”), whose determination shall be conclusive and binding upon you and the Company for all purposes. For purposes of making the calculations required by this paragraph, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. You and the Company shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this paragraph. The Company shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this paragraph as well as any costs incurred by you with the Accountants for tax planning under Sections 280G and 4999 of the Code.

Compliance with Proprietary Information Agreement and Company Policies

As a condition of employment, you have signed and must continue to comply with the Company’s standard form of Employee Proprietary Information, Inventions Assignment, Non-Competition and Non-Solicitation Agreement (the “Proprietary Information Agreement”, a copy of which is attached hereto as Exhibit A) which prohibits unauthorized use or disclosure of the Company’s proprietary information, among other obligations. As a Paratek employee, you will be expected to abide by Company policies and practices, as may be changed from time to time in the Company’s discretion, and acknowledge in writing that you have read the Company’s employee handbook.
Protection of Third Party Information

In your work for the Company, you will be expected not to use or disclose any confidential information, including trade secrets, of any former employer or other person to whom you have an obligation of confidentiality. Rather, you will be expected to use only that information which is generally known and used by persons with training and experience comparable to your own, which is common knowledge in the industry or otherwise legally in the public domain, or which is otherwise provided or developed by the Company. You agree that you will not bring onto Company premises, or use in the performance of your duties, any unpublished documents or property belonging to any former employer or other person to whom you have an obligation of confidentiality. You hereby represent that you have disclosed to the Company any contract you have signed that may restrict your activities on behalf of the Company.

Outside Activities

Except with the prior written consent of the Board, you will not during your employment engage in any other employment, occupation or business enterprise, other than ones in which you are a passive investor. You may engage in civic and not-for-profit activities so long as such activities do not materially interfere with the performance of your duties. During your employment, you agree not to acquire, assume or participate in, directly or indirectly, any entity, investment, or interest known by you to be adverse or antagonistic to the Company, its business or prospects, financial or otherwise, including any person, corporation, firm, partnership or other entity whatsoever known to you to compete with the Company (or is planning or preparing to compete with the Company), anywhere in the world, in any line of business engaged in (or planned to be engaged in) by the Company. You may purchase or otherwise acquire up to one percent (1%) of any class of securities of any enterprise if such securities are listed on any national or regional securities exchange, provided that you refrain from participating in the business activities of such enterprise.

Agreement to Arbitrate

To ensure the rapid and economical resolution of disputes that may arise in connection with your employment with the Company, you and the Company both agree that any and all disputes, claims, or causes of action, in law or equity, including but not limited to statutory claims, arising from or relating to the enforcement, breach, performance, or interpretation of this Agreement, your employment with the Company, or the termination of your employment with the Company, will be resolved pursuant to the Federal Arbitration Act, 9 U.S.C. §1-16, and to the fullest extent permitted by law, by final, binding and confidential arbitration conducted in Boston, Massachusetts by JAMS, Inc. (“JAMS”) or its successors.

Both you and the Company acknowledge that by agreeing to this arbitration procedure, you each waive the right to resolve any such dispute through a trial by jury or judge or administrative proceeding.

Any such arbitration proceeding will be governed by JAMS’ then applicable rules and procedures for employment disputes, which can be found at http://www.jamsadr.com/rules-clauses/, and which will be provided to you upon request. In any such proceeding, the arbitrator shall: (i) have the authority to compel adequate discovery for the resolution of the dispute and to award such relief as would otherwise be permitted by law; and (ii) issue a written arbitration decision including the arbitrator’s essential findings and conclusions and a statement of the award. You and the Company each shall be entitled to all rights and remedies that either would be entitled to pursue in a court of law. Nothing in this Agreement is intended to prevent either the Company or you from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration pursuant to applicable law.
**Entire Agreement; Contingencies**

This Agreement, together with your Proprietary Information Agreement, forms the complete and exclusive statement of your employment agreement with the Company. It supersedes any other prior agreements or promises made to you by anyone, whether oral or written, including the Employment Agreement. Changes in your employment terms, other than those changes expressly reserved to the Company’s or Board’s discretion in this Agreement, require a written modification approved by the Board and signed by a duly authorized Member of the Board.

This Agreement will bind the heirs, personal representatives, successors and assigns of both you and the Company, and inure to the benefit of both you and the Company, their heirs, successors and assigns. If any provision of this Agreement is determined to be invalid or unenforceable, in whole or in part, this determination shall not affect any other provision of this Agreement and the provision in question shall be modified so as to be rendered enforceable in a manner consistent with the intent of the parties insofar as possible under applicable law.

This Agreement shall be construed and enforced in accordance with the laws of the Commonwealth of Massachusetts without regard to conflicts of law principles. Any waiver of a breach of this Agreement, or rights hereunder, shall be in writing and shall not be deemed to be a waiver of any successive breach or rights hereunder. This Agreement may be executed in counterparts which shall be deemed to be part of one original, and pdf or other facsimile signatures shall be equivalent to original signatures.

[remainder of page intentionally left blank]
Please sign and date this Agreement to indicate your acceptance of continued employment at Paratek under the terms described above. We look forward to a continued productive and enjoyable work relationship.

Sincerely,

Paratek Pharmaceuticals, Inc.

/s/ MICHAEL F. BIGHAM  
Michael F. Bigham  
Chairman of the Board and Chief Executive Officer

Accepted:

/s/ EVAN LOH  
Evan Loh, M.D.

February 25, 2015  
Date
EMPLEYEE PROPRIETARY INFORMATION, INVENTIONS ASSIGNMENT, NON-COMPETITION
AND NON-SOLICITATION AGREEMENT

In consideration of my employment or continued employment by Paratek Pharmaceuticals, Inc., its subsidiaries, parents, affiliates, successors and assigns (together, the “Company”) and the compensation now and hereafter paid to me, I hereby enter into this Employee Proprietary Information, Inventions Assignment, Non-Competition and Non-Solicitation Agreement (the “Agreement”) and agree as follows:

1. NONDISCLOSURE.

1.1 Recognition of Company’s Rights; Nondisclosure. I understand and acknowledge that my employment by the Company creates a relationship of confidence and trust with respect to the Company’s Proprietary Information (defined below) and that the Company has a protectable interest therein. At all times during my employment and thereafter, I will hold in strictest confidence and will not disclose, use, lecture upon or publish any of the Company’s Proprietary Information, except as such disclosure, use or publication may be required in connection with my work for the Company, or unless an authorized officer of the Company expressly authorizes such in writing. I will obtain the Company’s written approval before publishing or submitting for publication any material (written, verbal, or otherwise) that relates to my work at the Company and/or incorporates any Proprietary Information. I hereby assign to the Company any rights I may have or acquire in such Proprietary Information and recognize that all Proprietary Information shall be the sole property of the Company and its assigns. I will take all reasonable precautions to prevent the inadvertent or accidental disclosure of Proprietary Information.

1.2 Proprietary Information. The term “Proprietary Information” shall mean any and all confidential and/or proprietary knowledge, data or information of the Company, its affiliates, parents and subsidiaries, whether having existed, now existing, or to be developed during my employment. By way of illustration but not limitation, “Proprietary Information” includes (a) trade secrets, inventions, ideas, processes, formulas, assay components, biological materials, cell lines, and clinical data, data, programs, other works of authorship, know-how, improvements, discoveries, developments, designs and techniques and any other proprietary technology and all Proprietary Rights therein (hereinafter collectively referred to as “Inventions”); (b) information regarding research, development, new products, marketing and selling, business plans, budgets and unpublished financial statements, licenses, prices and costs, margins, discounts, credit terms, pricing and billing policies, quoting procedures, methods of obtaining business, forecasts, future plans and potential strategies, financial projections and business strategies, operational plans, financing and capital-raising plans, activities and agreements, internal services and operational manuals, methods of conducting Company business, suppliers and supplier information, and purchasing; (c) information regarding customers and potential customers of the Company, including customer lists, names, representatives, their needs or desires with respect to the types of products or services offered by the Company, proposals, bids, contracts and their contents and parties, the type and quantity of products and services provided or sought to be provided to customers and potential customers of the Company and other non-public information relating to customers and potential customers; (d) information regarding any of the Company’s business partners and their services, including names; representatives, proposals, bids, contracts and their contents and parties, the type and quantity of products and services received by the Company, and other non-public information relating to business partners; (e) information regarding personnel, employee lists, compensation, and employee skills; and (f) any other non-public information which a competitor of the Company could use to the competitive disadvantage of the Company. Notwithstanding the foregoing, it is understood that, at all such times, I am free to use information which is generally known in the trade or industry through no breach of this Agreement or other act or omission by me, and I am free to discuss the terms and conditions of my employment with others to the extent expressly permitted by Section 7 of the National Labor Relations Act.

1.3 Third Party Information. I understand, in addition, that the Company has received and in the future will receive confidential and/or proprietary knowledge, data, or information from third parties (“Third Party Information”).

Exhibit A
During my employment and thereafter, I will hold Third Party Information in the strictest confidence and will not disclose to anyone (other than Company personnel who need to know such information in connection with their work for the Company) or use, except in connection with my work for the Company, Third Party Information unless expressly authorized by an authorized officer of the Company in writing.

1.4 Term of Nondisclosure Restrictions. I understand that Proprietary Information and Third Party Information is never to be used or disclosed by me, as provided in this Section 1. If, however, a court decides that this Section 1 or any of its provisions is unenforceable for lack of reasonable temporal limitation and the Agreement or its restriction(s) cannot otherwise be enforced, I agree and the Company agrees that the two (2) year period after the date my employment ends shall be the temporal limitation relevant to the contested restriction, provided, however, that this sentence shall not apply to trade secrets protected without temporal limitation under applicable law.

1.5 No Improper Use of Information of Prior Employers and Others. During my employment by the Company I will not improperly use or disclose any confidential information or trade secrets, if any, of any former employer or any other person to whom I have an obligation of confidentiality, and I will not bring onto the premises of the Company any unpublished documents or any property belonging to any former employer or any other person to whom I have an obligation of confidentiality unless consented to in writing by that former employer or person.

2. ASSIGNMENT OF INVENTIONS.

2.1 Proprietary Rights. The term “Proprietary Rights” shall mean all trade secrets, patents, copyrights, trade marks and other intellectual property rights throughout the world.

2.2 Prior Inventions. Inventions, if any, patented or unpatented, which I made prior to the commencement of my employment with the Company are excluded from the scope of this Agreement. To preclude any possible uncertainty, I have set forth on Exhibit 1 (Prior Inventions) attached hereto a complete list of all Inventions that I have, alone or jointly with others, conceived, developed or reduced to practice or caused to be conceived, developed or reduced to practice prior to the commencement of my employment with the Company, that I consider to be my property or the property of third parties, and that I wish to have excluded from the scope of this Agreement (collectively referred to as “Prior Inventions”). If disclosure of any such Prior Invention would cause me to violate any prior confidentiality agreement, I understand that I am not to list such Prior Inventions in Exhibit 1 but am only to disclose a cursory name for each such invention, a listing of the party(ies) to whom it belongs and the fact that full disclosure as to such inventions has not been made for that reason. A space is provided on Exhibit 1 for such purpose. If no such disclosure is attached, I represent that there are no Prior Inventions. If, in the course of my employment with the Company, I incorporate a Prior Invention into a Company product, process or machine, the Company is hereby granted and shall have a nonexclusive, royalty-free, irrevocable, perpetual, fully-paid, worldwide license (with rights to sublicense through multiple tiers of sublicensees) to make, have made, modify, make derivative works of, publicly perform, use, sell, import, and exercise any and all present and future rights in such Prior Invention. Notwithstanding the foregoing, I agree that I will not incorporate, or permit to be incorporated, Prior Inventions in any Company Inventions without the Company’s prior written consent.

2.3 Assignment of Inventions. Subject to Subsection 2.4, I hereby assign, grant and convey to the Company all my right, title and interest in and to any and all Inventions (and all Proprietary Rights with respect thereto) whether or not patentable or registrable under copyright or similar statutes, made or conceived or reduced to practice or learned by me, either alone or jointly with others, during the period of my employment with the Company. Inventions assigned to the Company or its designee are hereinafter referred to as “Company Inventions.”

2.4 Unassigned or Nonassignable Inventions. I recognize that this Agreement will not be deemed to require assignment of any Invention that I developed entirely on my own time without using the Company’s equipment, supplies, facilities, trade secrets, or Proprietary Information, except for those Inventions that either (i) relate to the Company’s actual or anticipated business, research or development, or (ii) result from or are connected with work performed by me for the Company. In addition, this Agreement does not apply to any Invention which qualifies fully for protection from assignment to the Company under any specifically applicable state law, regulation, rule, or public policy (“Specific Inventions Law”).
2.5 Obligation to Keep Company Informed. During the period of my employment and for six (6) months after termination of my employment with the Company, I will promptly disclose to the Company fully and in writing all Inventions authored, conceived or reduced to practice by me, either alone or jointly with others. In addition, I will promptly disclose to the Company all patent applications filed by me or on my behalf within a year after termination of employment. At the time of each such disclosure, I will advise the Company in writing of any Inventions that I believe fully qualify for protection under the provisions of a Specific Inventions Law; and I will at that time provide to the Company in writing all evidence necessary to substantiate that belief. The Company will keep in confidence and will not use for any purpose or disclose to third parties without my consent any confidential information disclosed in writing to the Company pursuant to this Agreement relating to Inventions that qualify fully for protection under a Specific Inventions Law. I will preserve the confidentiality of any Invention that does not fully qualify for protection under a Specific Inventions Law.

2.6 Ownership of Work Product. I agree that the Company will exclusively own all work product that is made by me (solely or jointly with others) within the scope of my employment, and I hereby irrevocably and unconditionally assign to the Company all right, title, and interest worldwide in and to such work product. I acknowledge that all original works of authorship which are made by me (solely or jointly with others) within the scope of my employment and which are protectable by copyright are “works made for hire,” pursuant to United States Copyright Act (17 U.S.C., Section 101). I understand and agree that I have no right to publish on, submit for publishing, or use for any publication any work product protected by this Section, except as necessary to perform services for the Company.

2.7 Enforcement of Proprietary Rights. I will assist the Company in every proper way to obtain, and from time to time enforce, United States and foreign Proprietary Rights relating to Company Inventions in any and all countries. To that end I will execute, verify and deliver such documents and perform such other acts (including appearances as a witness) as the Company may reasonably request for use in applying for, obtaining, perfecting, evidencing, sustaining and enforcing such Proprietary Rights and the assignment thereof. In addition, I will execute, verify and deliver assignments of such Proprietary Rights to the Company or its designee, including the United States or any third party designated by the Company. My obligation to assist the Company with respect to Proprietary Rights relating to such Company Inventions in any and all countries shall continue beyond the termination of my employment, but the Company shall compensate me at a reasonable rate after my termination for the time actually spent by me at the Company’s request on such assistance.

In the event the Company is unable for any reason, after reasonable effort, to secure my signature on any document needed in connection with the actions specified in the preceding paragraph, I hereby irrevocably designate and appoint the Company and its duly authorized officers and agents as my agent and attorney in fact, which appointment is coupled with an interest, to act for and in my behalf to execute, verify and file any such documents and to do all other lawfully permitted acts to further the purposes of the preceding paragraph with the same legal force and effect as if executed by me. I hereby waive and quitclaim to the Company any and all claims, of any nature whatsoever, which I now or may hereafter have for infringement of any Proprietary Rights assigned under this Agreement to the Company.

3. Records. I agree to keep and maintain adequate and current records (in the form of notes, sketches, drawings and in any other form that may be required by the Company) of all Proprietary Information developed by me and all Inventions made by me during the period of my employment at the Company, which records shall be available to and remain the sole property of the Company at all times.

4. Duty of Loyalty during Employment. I agree that during the period of my employment by the Company I will not, without the Company’s express written consent, directly or indirectly engage in any employment or business activity which is directly or indirectly competitive with, or would otherwise conflict with, my employment by the Company.

5. No Solicitation of Employees, Consultants, Contractors, or Customers or Potential Customers. I agree that during the period of my employment and for the one (1) year period after the date my employment ends for any reason, including but not limited to voluntary termination by me or involuntary termination by the Company, I will not, as an officer, director, employee, consultant, owner, partner, or in any other capacity, either directly or through others, except on behalf of the Company:
5.1 solicit, induce, encourage, or participate in soliciting, inducing, or encouraging any employee of the Company to terminate his or her relationship with the Company;

5.2 hire, employ, or engage in business with or attempt to hire, employ, or engage in business with any person employed by the Company or who has left the employment of the Company within the preceding three (3) months of any such prohibited activity or discuss any potential employment or business association with such person, even if I did not initiate the discussion or seek out the contact;

5.3 solicit, induce or attempt to induce any Customer or Potential Customer, or any consultant or independent contractor with whom I had direct or indirect contact during my employment with the Company or whose identity I learned as a result of my employment with the Company, to terminate, diminish, or materially alter in a manner harmful to the Company its relationship with the Company; or

5.4 solicit, perform, provide or attempt to perform or provide any Conflicting Services (as defined in Section 6 below) for a Customer or Potential Customer.

The parties agree that for purposes of this Agreement, a “Customer or Potential Customer” is any person or entity who or which, at any time during the one (1) year prior to the date my employment with the Company ends, (i) contracted for, was billed for, or received from the Company any product, service or process with which I worked directly or indirectly during my employment by the Company or about which I acquired Proprietary Information; or (ii) was in contact with me or in contact with any other employee, owner, or agent of the Company, of which contact I was or should have been aware, concerning any product, service or process with which I worked directly or indirectly during my employment with the Company or about which I acquired Proprietary Information; or (iii) was solicited by the Company in an effort in which I was involved or of which I was or should have been aware.

6. NON-COMPETE PROVISION. I agree that for the one (1) year period after the date my employment ends for any reason, including but not limited to voluntary termination by me or involuntary termination by the Company, I will not, directly or indirectly, as an officer, director, employee, consultant, owner, manager, member, partner, or in any other capacity solicit, perform, or provide, or attempt to perform or provide Conflicting Services anywhere in the world where the Company conducts business, including but not limited to locations where the Company performs research or development activities related to the Company’s products, services or processes (such locations the “Restricted Territory”), nor will I assist another person to solicit, perform or provide or attempt to perform or provide Conflicting Services in the Restricted Territory.

The parties agree that for purposes of this Agreement, “Conflicting Services” means any product, service, or process or the research and development thereof, of any person or organization other than the Company that has antibiotics as its principal business, unless otherwise expressly excluded from this definition in advance by the Company’s Board of Directors.

7. REASONABLENESS OF RESTRICTIONS.

7.1 I agree that I have read this entire Agreement and understand it. I agree that this Agreement does not prevent me from earning a living or pursuing my career and that I have the ability to secure other non-competitive employment using my marketable skills. I agree that the restrictions contained in this Agreement are reasonable, proper, and necessitated by the Company’s legitimate business interests, including without limitation, the Company’s Proprietary Rights, Proprietary Information and the goodwill of its customers. I represent and agree that I am entering into this Agreement freely and with knowledge of its contents with the intent to be bound by the Agreement and the restrictions contained in it.

7.2 In the event that a court finds this Agreement, or any of its restrictions, to be ambiguous, unenforceable, or invalid, the Company and I agree that the court shall read the Agreement as a whole and interpret the restriction(s) at issue to be enforceable and valid to the maximum extent allowed by law.

7.3 If the court declines to enforce this Agreement in the manner provided in subsection 7.2, I and the Company agree that this Agreement will be automatically modified to provide the Company with the maximum protection of its business interests allowed by law and I agree to be bound by this Agreement as modified.
8. **NO CONFLICTING AGREEMENT OR OBLIGATION.** I represent that my performance of all the terms of this Agreement and as an employee of the Company does not and will not breach any agreement or obligation of any kind to keep in confidence information acquired by me in confidence or in trust prior to my employment by the Company. I have not entered into, and I agree I will not enter into, any agreement either written or oral in conflict with this Agreement.

9. **RETURN OF COMPANY PROPERTY.** Upon termination of my employment or upon Company’s request at any other time, I will deliver to Company all of Company’s property, equipment, and documents, together with all copies thereof, and any other material containing or disclosing any Inventions, Third Party Information or Proprietary Information and certify in writing that I have fully complied with the foregoing obligation. I agree that I will not copy, delete, or alter any information contained upon my Company computer or Company equipment before I return it to Company. In addition, if I have used any personal computer, server, or e-mail system to receive, store, review, prepare or transmit any Company information, including but not limited to, Proprietary Information, I agree to provide the Company with a computer-useable copy of all such Proprietary Information and then permanently delete and expunge such Proprietary Information from those systems; and I agree to provide the Company access to my system as reasonably requested to verify that the necessary copying and/or deletion is completed. I further agree that any property situated on Company’s premises and owned by Company is subject to inspection by Company’s personnel at any time with or without notice. Prior to the termination of my employment or promptly after termination of my employment, I will cooperate with Company in attending an exit interview and certify in writing that I have complied with the requirements of this section.

10. **LEGAL AND EQUITABLE REMEDIES.**

10.1 I agree that it may be impossible to assess the damages caused by my violation of this Agreement or any of its terms. I agree that any threatened or actual violation of this Agreement or any of its terms will constitute immediate and irreparable injury to the Company and the Company shall have the right to enforce this Agreement and any of its provisions by injunction, specific performance or other equitable relief, without bond and without prejudice to any other rights and remedies that the Company may have for a breach or threatened breach of this Agreement.

10.2 I agree that if the Company is successful in whole or in part in any legal or equitable action against me under this Agreement, the Company shall be entitled to payment of all costs, including reasonable attorney’s fees, from me.

10.3 In the event the Company enforces this Agreement through a court order, I agree that the restrictions of Sections 5 and 6 shall remain in effect for a period of twelve (12) months from the effective date of the Order enforcing the Agreement.

11. **NOTICES.** Any notices required or permitted under this Agreement will be given to the Company at its headquarters location at the time notice is given, labeled “Attention Chief Executive Officer,” and to me at my address as listed on the Company payroll, or at such other address as the Company or I may designate by written notice to the other. Notice will be effective upon receipt or refusal of delivery. If delivered by certified or registered mail, notice will be considered to have been given five (5) business days after it was mailed, as evidenced by the postmark. If delivered by courier or express mail service, notice will be considered to have been given on the delivery date reflected by the courier or express mail service receipt.

12. **PUBLICATION OF THIS AGREEMENT TO SUBSEQUENT EMPLOYERS OR BUSINESS ASSOCIATES OF EMPLOYEE.**

12.1 If I am offered employment or the opportunity to enter into any business venture as owner, partner, consultant or other capacity while the restrictions described in Sections 5 and 6 of this Agreement are in effect I agree to inform my potential employer, partner, co-owner and/or others involved in managing the business with which I have an opportunity to be associated of my obligations under this Agreement and also agree to provide such person or persons with a copy of this Agreement.

12.2 I agree to inform the Company of all employment and business ventures which I enter into while the restrictions described in Sections 5 and 6 of this Agreement are in effect and I also authorize the Company to provide copies of this Agreement to my employer, partner, co-owner and/or others involved in managing the business with which I am employed or associated and to make such persons aware of my obligations under this Agreement.

13.1 Governing Law; Consent to Personal Jurisdiction. This Agreement will be governed by and construed according to the laws of the Commonwealth of Massachusetts as such laws are applied to agreements entered into and to be performed entirely within the Commonwealth of Massachusetts between Massachusetts residents. I hereby expressly consent to the personal jurisdiction and venue of the state and federal courts located in the Commonwealth of Massachusetts for any lawsuit filed there against me by Company arising from or related to this Agreement.

13.2 Severability. In case any one or more of the provisions, subsections, or sentences contained in this Agreement shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect the other provisions of this Agreement, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained in this Agreement. If moreover, any one or more of the provisions contained in this Agreement shall for any reason be held to be excessively broad as to duration, geographical scope, activity or subject, it shall be construed by limiting and reducing it, so as to be enforceable to the extent compatible with the applicable law as it shall then appear.

13.3 Successors and Assigns. This Agreement is for my benefit and the benefit of the Company, its successors, assigns, parent corporations, subsidiaries, affiliates, and purchasers, and will be binding upon my heirs, executors, administrators and other legal representatives.

13.4 Survival. The provisions of this Agreement shall survive the termination of my employment, regardless of the reason, and the assignment of this Agreement by the Company to any successor in interest or other assignee. I understand that my obligations under this Agreement will continue in accordance with its express terms regardless of any change in my title, position, status, role, duties, salary, compensation or benefits or other terms and conditions of employment or service.

13.5 Employment At-Will. I agree and understand that nothing in this Agreement shall change my at-will employment status or confer any right with respect to continuation of employment by the Company, nor shall it interfere in any way with my right or the Company’s right to terminate my employment at any time, with or without cause or advance notice.

13.6 Waiver. No waiver by the Company of any breach of this Agreement shall be a waiver of any preceding or succeeding breach. No waiver by the Company of any right under this Agreement shall be construed as a waiver of any other right. The Company shall not be required to give notice to enforce strict adherence to all terms of this Agreement.

13.7 Advice of Counsel. I ACKNOWLEDGE THAT, IN EXECUTING THIS AGREEMENT, I HAVE HAD THE OPPORTUNITY TO SEEK THE ADVICE OF INDEPENDENT LEGAL COUNSEL, AND I HAVE READ AND UNDERSTOOD ALL OF THE TERMS AND PROVISIONS OF THIS AGREEMENT. THIS AGREEMENT SHALL NOT BE CONSTRUED AGAINST ANY PARTY BY REASON OF THE DRAFTING OR PREPARATION OF THIS AGREEMENT.

13.8 Entire Agreement. The obligations pursuant to Sections 1 and 2 (except Subsection 2.6) of this Agreement shall apply to any time during which I was previously engaged, or am in the future engaged, by the Company as a consultant if no other agreement governs nondisclosure and assignment of inventions during such period. This Agreement is the final, complete and exclusive agreement of the parties with respect to the subject matter of this Agreement and supersedes and merges all prior discussions between us. No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, will be effective unless in writing and signed by the party to be charged. Any subsequent change or changes in my title, position, status, role, duties, salary, compensation or benefits or other terms and conditions of employment or service will not affect the validity or scope of this Agreement.
This Agreement shall be effective as of the first day of my employment with the Company.

EVAN LOH, M.D.:
I have read, understand, and accept this agreement and have been given the opportunity to review it with independent legal counsel.

/s/ EVAN LOH
(Signature)

Date: October 6, 2014
Address: 423 Brookway Road
Merion Station, PA 19066

PARATEK PHARMACEUTICALS, INC.

/s/ MICHAEL F. BIGHAM
(Signature)

By: Michael F. Bigham
Title: Chairman and CEO
Date: October 6, 2014
Address: 75 Kneeland Street, Boston, Massachusetts 02111
EXHIBIT 1

PRIOR INVENTIONS

TO: Paratek Pharmaceuticals, Inc.
FROM: Evan Loh, M.D.
DATE: ________________________________
SUBJECT: Prior Inventions

1. Except as listed in Section 2 below, the following is a complete list of all inventions or improvements relevant to the subject matter of my employment by Paratek Pharmaceuticals, Inc. (the “Company”) that have been made or conceived or first reduced to practice by me alone or jointly with others prior to my engagement by the Company:

☒ No inventions or improvements.

☐ See below:

2. Due to a prior confidentiality agreement, I cannot complete the disclosure under Section 1 above with respect to inventions or improvements generally listed below, the proprietary rights and duty of confidentiality with respect to which I owe to the following party(ies):

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☐ Additional sheets attached.

☐ Additional sheets attached.
EXHIBIT 10.21

Execution 4/13/06

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 AS AMENDED, OR ANY STATE SECURITIES LAWS. THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED, OR HYPOTHECATED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL FOR THE HOLDER THEREOF REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933 ACT AS AMENDED, OR ANY APPLICABLE STATE SECURITIES LAWS.

WARRANT AGREEMENT

To Purchase Shares of the Series C Preferred Stock of
TransOral Pharmaceuticals, Inc.

Dated as of April 13, 2006 (the “Effective Date”)

WHEREAS, TransOral Pharmaceuticals, Inc., a Delaware corporation (the “Company”), has entered into a Senior Loan and Security Agreement of even date herewith (the “Loan Agreement”) with Hercules Technology Growth Capital, Inc., a Maryland corporation (the “Warrantholder”);

WHEREAS, the Company desires to grant to Warrantholder, in consideration for, among other things, the financial accommodations provided for in the Loan Agreement, the right to purchase shares of its Series C Preferred Stock pursuant to this Warrant Agreement the “Agreement”;

NOW, THEREFORE, the Company and Warrantholder agree as follows:

1. GRANT OF THE RIGHT TO PURCHASE PREFERRED STOCK.

For value received, the Company hereby grants to the Warrantholder, and the Warrantholder is entitled, upon the terms and subject to the conditions hereinafter set forth, to subscribe for and purchase, from the Company, fully paid and non-assessable shares of the Preferred Stock (as defined below) at a purchase price of $1.15 per share (the “Exercise price”). The number of Shares is equal to 5% of the aggregate Advances made under the Loan and Security Agreement dated as of the Effective Date between Company and Warrantholder divided by the Exercise Price. The number and Exercise Price of such shares are subject to adjustment as provided in Section 8. As used herein, the following terms shall have the following meanings:


“Charter” means the Company’s Certificate of Incorporation, as may be amended from time to time.

“Common Stock” means the Company’s common stock;

“Initial Public Offering” means the initial underwritten public offering of the Company’s Common Stock pursuant to a registration statement under the Act, which public offering has been declared effective by the Securities and Exchange Commission (“SEC”);

“Merger Event” means (i) a merger or consolidation involving the Company in which the Company is not the surviving entity, or in which the outstanding shares of the Company’s capital stock are otherwise converted into or exchanged for shares of capital stock of another entity, or (ii) the sale of all or substantially all of the assets of the Company.

“Preferred Stock” means the Series C Preferred Stock of the Company and any other stock into or for which the Series C Preferred Stock may be converted or exchanged, and upon and after the occurrences of an event which results in the automatic or voluntary conversion, redemption or retirement of all (but not less than all) of the outstanding shares of such Preferred Stock, including, without limitation, the consummation of an Initial Public Offering of the Common Stock in which such a conversion occurs, then from and after the date upon which such outstanding shares are so converted, redeemed or retired, “Preferred Stock” shall mean such Common Stock; and
“Purchase Price” means, with respect to any exercise of this Warrant, an amount equal to the Exercise Price as of the relevant time multiplied by the number of shares of Preferred Stock requested to be exercised under this Warrant pursuant to such exercise.

2. TERM.

Except as otherwise provided for herein, the term of this Warrant and the right to purchase Preferred Stock as granted herein (the “Warrant”) shall commence on the Effective Date and shall be exercisable for a period ending upon the earliest to occur of (i) ten (10) years from the Effective Date; or (ii) five (5) years after the Initial Public Offering. Notwithstanding anything herein to the contrary, upon the consummation of a Merger Event where the consideration to the Company is cash or publicly traded securities, this Warrant shall automatically be exercised pursuant to Section 3 hereof, without any action by the holder of this Warrant.

3. EXERCISE.

(a) Exercise. The purchase rights set forth in this Warrant are exercisable by the Warrantholder, in whole or in part, at any time, or from time to time, prior to the expiration of the term set forth in Section 2, by tendering to the Company at its principal office a notice of exercise in the form attached hereto as Exhibit I (the “Notice of Exercise”), duly completed and executed, together with payment of the Purchase Price. Promptly upon receipt of the Notice of Exercise and the payment of the Purchase Price in accordance with the terms set forth below, and in no event later than ten (10) business days thereafter, the Company shall issue to the Warrantholder a certificate for the number of shares of Preferred Stock purchased and shall execute the acknowledgment of exercise in the form attached hereto as Exhibit II (the “Acknowledgment of Exercise”) indicating the number of shares which remain subject to future purchases, if any. The date which such certificate shall be deemed to have been issued shall be the date of exercise of the Warrant in the manner set forth herein.

The Purchase Price may be paid at the Warrantholder’s election either (i) by cash or check, or (ii) if the fair market value of one share of the Preferred Stock is greater than the Exercise Price then in effect, by surrender of all or a portion of the Warrant for shares of Preferred Stock to be exercised under this Warrant and, if applicable, an amended Agreement representing the remaining number of shares purchasable hereunder, as determined below (“Net Issuance”). If the Warrantholder elects the Net Issuance method, the Company will issue Preferred Stock in accordance with the following formula:

\[
X = \frac{Y(A-B)}{A}
\]

Where:

- \(X\) = the number of shares of Preferred Stock to be issued to the Warrantholder.
- \(Y\) = the number of shares of Preferred Stock requested to be exercised under this Warrant.
- \(A\) = the fair market value of one (1) share of Preferred Stock at the time of issuance of such shares of Preferred Stock.
- \(B\) = the Exercise Price.

For purposes of the above calculation, current fair market value of Preferred Stock shall mean with respect to each share of Preferred Stock:

- (i) if the exercise is made concurrent with the closing of an Initial Public Offering, and if the Company’s Registration Statement relating to such Initial Public Offering has been declared effective by the SEC, then the fair market value per share shall be the product of (x) the initial “Price to Public” of the Common Stock specified in the final prospectus with respect to the offering and (y) the number of shares of Common Stock into which each share of Preferred Stock is convertible at the time of such exercise;

- (ii) if the exercise is after, and not in connection with, an Initial Public Offering, and:

    (1) if the Common Stock is traded on a securities exchange, the fair market value shall be deemed to be the product of (x) the average of the closing prices over a five (5) trading day period ending the first
trading day before the day the current fair market value of the securities is being determined and (y) the number of shares of Common Stock into which each share of Preferred Stock is convertible at the time of such exercise; or

(2) if the Common Stock is traded over-the-counter, the fair market value shall be deemed to be the product of (x) the average of the closing bid and asked prices quoted on the NASDAQ system (or similar system) over the five (5) day trading day period ending the first trading day before the day the current fair market value of the securities is being determined and (y) the number of shares of Common Stock into which each share of Preferred Stock is convertible at the time of such exercise.

(iii) if at any time the Common Stock is not listed on any securities exchange or quoted in the NASDAQ National Market or the over-the-counter market, the current fair market value of Preferred Stock shall be the product of (x) the highest price per share which the Company could obtain from a willing buyer (not a current employee or director) for shares of Common Stock sold by the Company, from authorized but unissued shares, as most recently determined in good faith by its Board of Directors and (y) the number of shares of Common Stock into which each share of Preferred Stock is convertible at the time of such exercise, unless the exercise is made concurrent with a Merger Event pursuant to which the Company is not the surviving party, in which case the fair market value of Preferred Stock shall be deemed to be the per share value received by the holders of the Company’s Preferred Stock on a common equivalent basis pursuant to such Merger Event.

Upon partial exercise by either cash or Net Issuance, the Company shall promptly issue an amended Agreement representing the remaining number of shares purchasable hereunder. All other terms and conditions of such amended Agreement shall be identical to those contained herein, including, but not limited to the Effective Date hereof.

(b) Exercise Prior to Expiration. To the extent this Warrant is not previously exercised as to all Preferred Stock subject hereto, and if the fair market value of one share of the Preferred Stock is greater than the Exercise Price then in effect, this Warrant shall be deemed automatically exercised pursuant to Section 3(a) (even if not surrendered) immediately before its expiration. For purposes of such automatic exercise, the fair market value of one share of the Preferred Stock upon such expiration shall be determined pursuant to Section 3(a). To the extent this Warrant or any portion thereof is deemed automatically exercised pursuant to this Section 3(b), the Company agrees to promptly notify the Warrantholder of the number of shares of Preferred Stock, if any, the Warrantholder is to receive by reason of such automatic exercise.

4. RESERVATION OF SHARES.

During the term of this Warrant, the Company will at all times have authorized and reserved a sufficient number of shares of its Preferred Stock to provide for the exercise of the rights to purchase Preferred Stock as provided for herein, and shall have authorized and reserved a sufficient number of shares of its Common Stock to provide for the conversion of the preferred Shares available hereunder.

5. NO FRACTIONAL SHARES OR SCRIP.

No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant, but in lieu of such fractional shares the Company shall make a cash payment therefor upon the basis of the Exercise Price then in effect.

6. REGISTRATION RIGHTS.

The holder of this Warrant shall be made a party to that certain Amended and Restated Investor Rights Agreement (the “Investor Rights Agreement”) dated as of October 25, 2005, among the Company and the Stockholders, as defined therein, in accordance with that certain Joinder Agreement attached hereto as Exhibit IV.

7. WARRANTHOLDER REGISTRY.

The Company shall maintain a registry showing the name and address of the registered holder of this Warrant. Warrantholder’s initial address, for purposes of such registry, is set forth below Warrantholder’s signature on this Warrant. Warrantholder may change such address by giving written notice of such changed address to the Company.
8. **ADJUSTMENT RIGHTS.**

The Exercise Price and the number of shares of Preferred Stock purchasable hereunder are subject to adjustment, as follows:

(a) **Merger Event.** Subject to the termination provisions contained in Section 2 hereof, if at any time there shall be a Merger Event, then, as a part of such Merger Event, lawful provision shall be made so that the Warrantholder shall thereafter be entitled to receive, upon exercise of this Warrant, the number of shares of preferred stock or other securities or property of the successor corporation resulting from such Merger Event that would have been issuable if Warrantholder had exercised this Warrant immediately prior to the Merger Event. In any such case, appropriate adjustment (as determined in good faith by the Company’s Board of Directors) shall be made in the application of the provisions of this Warrant with respect to the rights and interests of the Warrantholder after the Merger Event to the end that the provisions of this Warrant (including adjustments of the Exercise Price and number of shares of Preferred Stock purchasable) shall be applicable in their entirety, and to the greatest extent possible. Without limiting the foregoing, in connection with any Merger Event, upon the closing thereof, the successor or surviving entity shall assume the obligations of this Warrant.

(b) **Reclassification of Shares.** Except as set forth in Section 8(a), if the Company at any time shall, by combination, reclassification, exchange or subdivision of securities or otherwise, change any of the securities as to which purchase rights under this Warrant exist into the same or a different number of securities of any other class or classes, this Warrant thereafter shall represent the right to acquire such number and kind of securities as would have been issuable as the result of such change with respect to the securities which were subject to the purchase rights under this Warrant immediately prior to such combination, reclassification, exchange, subdivision or other change.

(c) **Subdivision or Combination of Shares.** If the Company at any time shall combine or subdivide its Preferred Stock, (i) in the case of a subdivision, the Exercise price shall be proportionately decreased, and the number of shares of Preferred Stock issuable upon exercise of this Warrant shall be proportionately increased, or (ii) in the case of a combination, the Exercise Price shall be proportionately increased, and the number of shares of Preferred Stock issuable upon the exercise of this Warrant shall be proportionately decreased.

(d) **Stock Dividends.** If the Company at any time while this Warrant is outstanding and unexpired shall:

   (i) pay a dividend with respect to the Preferred Stock payable in preferred stock, then the Exercise Price shall be adjusted, from and after the date of determination of shareholders entitled to receive such dividend or distribution, to that price determined by multiplying the Exercise Price in effect immediately prior to such date of determination by a fraction (A) the numerator of which shall be the total number of shares of Preferred Stock outstanding immediately prior to such dividend or distribution, and (B) the denominator of which shall be the total number of shares of Preferred Stock outstanding immediately after such dividend or distribution; or

   (ii) make any other distribution with respect to Preferred Stock (or stock into which the Preferred Stock is convertible), except any distribution specifically provided for in any other clause of this Section 8, then, in each such case, provision shall be made by the Company such that the Warrantholder shall receive upon exercise or conversion of this Warrant a proportionate share of any such distribution as though it were the holder of the preferred Stock (or other stock for which the Preferred Stock is convertible) as of the record date fixed for the determination of the shareholders of the Company entitled to receive such distribution.

(e) **Antidilution Rights.** Additional antidilution rights applicable to the preferred Stock purchasable hereunder are as set forth in the Company’s Charter and shall be applicable with respect to the Preferred Stock issuable hereunder. The Company shall promptly provide the Warrantholder with any restatement, amendment, modification or waiver of the Charter that materially affects the rights of the Preferred Stock; provided, that no such amendment, modification or waiver shall impair or reduce the antidilution rights applicable to the Preferred Stock as of the date hereof unless such amendment, modification or waiver affects the rights of Warrantholder with respect to the Preferred Stock in the same manner as it affects all other holders of Preferred Stock. For the avoidance of doubt, there shall be no duplicate anti-dilution adjustment pursuant to this subsection (f), the forgoing subsection (d) and the Company’s Charter.

(f) **Notice of Adjustments.** Whenever an adjustment to the Exercise price or the number of shares of Preferred Stock issuable upon exercise of this Warrant is made pursuant to this Section 8, the Company shall send to the
Warrantholder a notice setting forth, in reasonable detail, (i) the event requiring the adjustment, (ii) the amount of such adjustment, (iii) the method by which such adjustment was calculated, (iv) the adjusted Exercise Price (if the Exercise price has been adjusted), and (v) the number of shares subject to purchase hereunder after giving effect to such adjustment, and shall cause such notice to be mailed (by first class mail, postage, prepaid, or by reputable overnight courier with all charges prepaid) within thirty (30) days of such adjustment addressed to the Warrantholder at the address for Warrantholder set forth in the registry referred to in Section 7.

9. REPRESENTATIONS, WARRANTIES AND COVENANTS OF THE COMPANY.

(a) Reservation of Preferred Stock. The Preferred Stock issuable upon exercise of the Warrantholder’s rights has been duly and validly reserved and, when issued in accordance with the provisions of this Warrant, will be validly issued, fully paid and non-assessable, and will be free of any taxes, liens, charges or encumbrances of any nature whatsoever; provided, that the Preferred Stock issuable pursuant to this Warrant may be subject to restrictions on transfer under state and/or federal securities laws and applicable agreements to which the Company or its security holders are parties. The Company has made available to the Warrantholder true, correct and complete copies of its Charter and current bylaws. The issuance of certificates for shares of Preferred Stock upon exercise of this Warrant shall be made without charge to the Warrantholder for any issuance tax in respect thereof, or other cost incurred by the Company in connection with such exercise and the related issuance of shares of Preferred Stock; provided, that the Company shall not be required to pay any tax which may be payable in respect of any transfer and the issuance and delivery of any certificate in a name other than that of the Warrantholder.

(b) Due Authority. The execution and delivery by the Company of this Warrant and the performance of all obligations of the Company hereunder, including the issuance to Warrantholder of the right to acquire the shares of Preferred Stock and the Common Stock into which it may be converted, have been duly authorized by all necessary corporate action on the part of the Company. This Warrant: (1) is not inconsistent with the Company’s Charter or current bylaws; (2) subject to the accuracy of the Warrantholder’s representations in Section 10, does not contravene any law or governmental rule, regulation or order applicable to it; and (3) does not and will not contravene any provision of, or constitute a default under, any indenture, mortgage, contact or other instrument to which it is a party or by which it is bound. This Warrant constitutes a legal, valid and binding agreement of the Company, enforceable in accordance with its respective terms.

(c) Consents and Approvals. No consent or approval of, giving of notice to, registration with, or taking of any other action in respect of any state, federal or other governmental authority or agency is required with respect to the execution, delivery and performance by the Company of its obligations under this Warrant, except for the filing of notices pursuant to Regulation D under the Act and any filing required by applicable state securities law, which filings will be effective by the time required thereby.

(i) Issued Securities. All issued and outstanding shares of Common Stock, Preferred Stock or any other securities of the Company have been duly authorized and validly issued and are fully paid and nonassessable. All outstanding shares of Common Stock, Preferred Stock and any other securities were issued in full compliance with all federal and state securities laws. Attached to this Warrant is a true and correct capitalization table of the Company. In accordance with the Company’s Charter, no shareholder of the Company has preemptive right to purchase new issuances of the Company’s capital stock which right has not otherwise been waived in connection with the issuance of this Warrant.

(d) Other Commitments to Register Securities. Except as set forth in this Warrant and the Investor Rights Agreement, the Company is not, pursuant to the terms of any other agreement currently in existence, under any obligation to register under the Act any of its presently outstanding securities or any of its securities which may hereafter be issued.

(e) Exempt Transaction. Subject to the accuracy of the Warrantholder’s representations in Section 10 (both at the time of the issuance of the Preferred Stock upon exercise of this Warrant and at the time of the issuance of the Common Stock upon conversion of the Preferred Stock), the issuance of the Preferred Stock upon exercise of this Warrant, and the issuance of the Common Stock upon conversion of the Preferred Stock, will each constitute a transaction exempt from (i) the registration requirements of Section 5 of the Act, in reliance upon Section 4(2) thereof, and (ii) the qualification requirements of the applicable state securities laws.
Compliance with Rule 144. If the Warrantholder proposes to sell Preferred Stock issuable upon the exercise of this Warrant, or the Common Stock into which it is convertible, in compliance with Rule 144 promulgated by the SEC, then, upon Warrantholder’s written request to the Company, the Company shall furnish to the Warrantholder, within ten days after receipt of such request, a written statement confirming the Company’s compliance with the filing requirements of the SEC as set forth in such Rule, as such Rule may be amended from time to time.

10. REPRESENTATIONS AND COVENANTS OF THE WARRANTHOLDER.

This Warrant has been entered into by the Company in reliance upon the following representations and covenants of the Warrantholder:

(a) Investment Purpose. The right to acquire Preferred Stock or the Preferred Stock issuable upon exercise of the Warrantholder’s rights contained herein are being acquired for investment and not with a view to the sale or distribution of any part thereof, and the Warrantholder has no present intention of selling or engaging in any public distribution of the same except pursuant to a registration or exemption.

(b) Private Issue. The Warrantholder understands (i) that the Preferred Stock issuable upon exercise of this Warrant is not registered under the Act or qualified under applicable state securities laws on the ground that the issuance contemplated by this Warrant will be exempt from the registration and qualifications requirements thereof, and (ii) that the Company’s reliance on such exemption is predicated on the representations set forth in this Section 10.

(c) Disposition of Warrantholder’s Rights. In no event will the Warrantholder make a disposition of any of its rights to acquire Preferred Stock or Preferred Stock issuable upon exercise of such rights unless and until (i) it shall have notified the Company of the proposed disposition, and (ii) if requested by the Company, it shall have furnished the Company with an opinion of counsel (which counsel may either be inside or outside counsel to the Warrantholder) reasonably satisfactory to the Company and its counsel to the effect that (A) appropriate action necessary for compliance with the Act has been taken, or (B) an exemption from the registration requirements of the Act is available. Notwithstanding the foregoing, the restrictions imposed upon the transferability of any of its rights to acquire Preferred Stock or Preferred Stock issuable on the exercise of such rights do not apply to transfers from the beneficial owner of any of the aforementioned securities to its nominee or from such nominee to its beneficial owner, or to any transfers to an Affiliate (as such term is defined in the Act) of Warrantholder, and shall terminate as to any particular share of Preferred Stock when (1) such security shall have been effectively registered under the Act and sold by the holder thereof in accordance with such registration or (2) such security shall have been sold without registration in compliance with Rule 144 under the Act, or (3) a letter shall have been issued to the Warrantholder at its request by the staff of the SEC or a ruling shall have been issued to the Warrantholder by the SEC stating that no action shall be recommended by such staff or taken by the SEC, as the case may be, if such security is transferred without registration under the Act in accordance with the conditions set forth in such letter or ruling and such letter or ruling specifies that no subsequent restrictions on transfer are required. Whenever the restrictions imposed hereunder shall terminate, as hereinabove provided, the Warrantholder or holder of a share of Preferred Stock then outstanding as to which such restrictions have terminated shall be entitled to receive from the Company, without expense to such holder, one or more new certificates for this Warrant or for such shares of Preferred Stock not bearing any restrictive legend.

(d) Financial Risk. The Warrantholder has such knowledge and experience in financial and business matters as to be capable of evaluating the merits and risks of its investment, and has the ability to bear the economic risks of its investment.

(e) Risk of No Registration. The Warrantholder understands that if the Company does not register with the SEC pursuant to Section 12 of the Securities Exchange Act of 1934, as amended (the “1934 Act”), or file reports pursuant to Section 15(d) of the 1934 Act, or if a registration statement covering the securities under the Act is not in effect when it desires to sell (i) the rights to purchase Preferred Stock pursuant to this Warrant or (ii) the preferred Stock issuable upon exercise of the right to purchase, it may be required to hold such securities for an indefinite period. The Warrantholder also understands that any sale of (A) its rights hereunder to purchase Preferred Stock or (B) Preferred Stock issued or issuable hereunder which might be made by it in reliance upon Rule 144 under the Act may be made only in accordance with the terms and conditions of that Rule.
(f) Accredited Investor. Warrantholder is an “accredited investor” within the meaning of the Securities and Exchange Rule 501 of Regulation D, as presently in effect.

(g) Diligence. Warrantholder has had an opportunity to discuss the Company’s business, management and financial affairs with its management and an opportunity to review the Company’s facilities.

11. TRANSFERS AND LEGENDS.

(a) Subject to the terms and conditions contained in Section 10, this Warrant and all rights hereunder are transferable in whole or in part by the Warrantholder and any successor transferee. The transfer shall be recorded on the books of the Company upon receipt by the Company of a notice of transfer in the form attached hereto as Exhibit III (the “Transfer Notice”), at its principal offices and the payment to the Company of all transfer taxes and other governmental charges imposed on such transfer.

(b) Legend. The Preferred Stock (unless registered under the Act) shall be stamped or imprinted with a legend in substantially the following form:

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “ACT”). THESE SECURITIES HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO DISTRIBUTION OR RESALE, AND MAY NOT BE TRANSFERRED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT FOR SUCH SHARES UNDER THE ACT, OR PURSUANT TO RULE 144 UNDER THE ACT OR AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT REGISTRATION IS NOT REQUIRED UNDER THE ACT (EXCEPT THAT AN OPINION SHALL NOT BE REQUIRED WITH RESPECT TO A TRANSFER WITHOUT CONSIDERATION TO AN AFFILIATE). THESE SECURITIES HAVE NOT BEEN QUALIFIED UNDER THE LAWS OF ANY STATE, INCLUDING THE DEPARTMENT OF CORPORATIONS OF THE STATE OF CALIFORNIA, OR THE STATE AGENCIES OF DELAWARE. IN THE ABSENCE OF AN EXEMPTION FROM QUALIFICATION REQUIREMENT(S) UNDER APPLICABLE LAW, THE ISSUANCE OF SUCH SECURITIES OR THE PAYMENT OR RECEIPT OF ANY PART OF THE CONSIDERATION FOR SUCH SECURITIES PRIOR TO SUCH QUALIFICATION IS UNLAWFUL.

Notwithstanding the foregoing, if the Preferred Stock has been held for one year from the later of the date of issuance by the Company or the date such Preferred Stock was acquired from an “affiliate” of the Company (including periods of tacking, if any) and Warrantholder is not an “affiliate” of the Company (“affiliate” in each case, as defined in Rule 144 promulgated under the Act), then the Company hereby agrees to reissue the Shares without the legend above promptly following the date it receives written notice from Warrantholder requesting such removal and reissuance.

12. MISCELLANEOUS.

(a) Effective Date. The provisions of this Warrant shall be construed and shall be given effect in all respects as if it had been executed and delivered by the Company on the date hereof. This Warrant shall be binding upon any successors or assigns of the Company.

(b) Remedies. In the event of any default hereunder, the non-defaulting party may proceed to protect and enforce its rights either by suit in equity and/or by action at law, including but not limited to an action for damages as a result of any such default, and/or an action for specific performance for any default where Warrantholder will not have an adequate remedy at law and where damages will not be readily ascertainable.

(c) Market Standoff. The Warrantholder shall be subject to the restrictions under Section 1.14 of the Investor Rights Agreement to the same extent as the other parties thereto.

(d) No Impairment of Rights. The Company will not, by amendment of its Charter or through any other means, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate in order to protect the rights of the Warrantholder against impairment.
(e) Attorney’s Fees. In any litigation, arbitration or court proceeding between the Company and the Warrantholder relating hereto, the prevailing party shall be entitled to reasonable attorneys’ fees and expenses and all costs of proceedings reasonably incurred in enforcing this Warrant. For the purposes of this Section 12(e), attorneys’ fees shall include without limitation fees reasonably incurred in connection with the following: (i) contempt proceedings; (ii) discovery; (iii) any motion, proceeding or other activity of any kind in connection with an insolvency proceeding; (iv) garnishment, levy, and debtor and third party examinations; and (v) post-judgment motions and proceedings of any kind, including without limitation any activity taken to collect or enforce any judgment.

(f) Entire Agreement; Amendments. This Warrant constitute the entire agreement and understanding of the parties hereto in respect of the subject matter hereof, and supersede and replace in their entirety any prior proposals, term sheets, letters, negotiations or other documents or agreements, whether written or oral, with respect to the subject matter hereof. None of the terms of this Warrant may be amended except by an instrument executed by each of the parties hereto.

(g) No Waiver. No omission or delay by Warrantholder at any time to enforce any right or remedy reserved to it, or to require performance of any of the terms, covenants or provisions hereof by the Company at any time designated, shall be a waiver of any such right or remedy to which Warrantholder is entitled, nor shall it in any way affect the right of Warrantholder to enforce such provisions thereafter.

(h) Survival. All agreements, representations and warranties contained in this Warrant or in any document delivered pursuant hereto shall be for the benefit of Warrantholder and shall survive the execution and delivery of this Warrant and the expiration or other termination of this Warrant.

(i) Governing Law. This Warrant shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, excluding conflict of laws principles that would cause the application of laws of any other jurisdiction,

(j) Consent to Jurisdiction and Venue. All judicial proceedings arising in or under or related to this Warrant may be brought in any state or federal court of competent jurisdiction located in the State of California. By execution and delivery of this Warrant, each party hereto generally and unconditionally: (a) consents to personal jurisdiction in Santa Clara County, California; (b) waives any objection as to jurisdiction or venue in Santa Clara County, California; (c) agrees not to assert any defense based on lack of jurisdiction or venue in the aforesaid courts; and (d) irrevocably agrees to be bound by any judgment rendered thereby in connection with this Warrant, Nothing herein shall affect the right to serve process in any other manner permitted by law or shall limit the right of either party to bring proceedings in the courts of any other jurisdiction.

(k) Mutual Waiver of Jury Trial. Because disputes arising in connection with complex financial transactions are most quickly and economically resolved by an experienced and expert person and the parties wish applicable state and federal laws to apply (rather than arbitration rules), the parties desire that their disputes be resolved by a judge applying such applicable laws. EACH OF THE COMPANY AND WARRANTHOLDER SPECIFICALLY WAIVES ANY RIGHT IT MAY HAVE TO TRIAL BY JURY OF ANY CAUSE OF ACTION, CLAIM, CROSS-CLAIM, COUNTERCLAIM, THIRD PARTY CLAIM OR ANY OTHER CLAIM (COLLECTIVELY, “CLAIMS”) ASSERTED BY THE COMPANY AGAINST WARRANTHOLDER OR ITS ASSIGNEE OR BY WARRANTHOLDER OR ITS ASSIGNEE AGAINST THE COMPANY. If this jury waiver is for any reason unenforceable, all disputes shall be resolved by judicial reference under California Code of Civil Procedure Section 638.

(l) Specific Performance. Warrantholder and Company agree that either may be irreparably damaged by any breach or threatened breach of this Warrant. Upon a breach or threatened breach of the terms, covenants and/or conditions of this Warrant by Warrantholder or Company, the other party shall, in addition to all other remedies, be entitled to seek a temporary or permanent injunction and/or a decree for specific performance, in accordance with the provisions hereof.
(m) No Stockholder Rights. Prior to the exercise of this Warrant, the Warrantholder shall not be entitled to vote or receive dividends or be deemed the holder of the Preferred Stock or any other securities of the Company which may at any time be issuable on the exercise hereof for any purpose, nor shall anything contained herein be construed to confer upon such holder, as such, any of the rights of a stockholder of the company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof, or to give or withhold consent to any corporate action, whether upon any recapitalization, issuance of stock, reclassification of stock change of par value, consolidation, merger, conveyance, or otherwise, or to receive dividends or subscription rights or otherwise until this Warrant shall have been exercised and the Preferred Stock purchasable upon the exercise hereof shall have become deliverable as provided herein.

(n) Counterparts. This Warrant and any amendments, waivers, consents or supplements hereto may be executed in any number of counterparts, and by different parties hereto in separate counterparts, each of which when so delivered shall be deemed an original, but all of which counterparts shall constitute but one and the same instrument.
IN WITNESS WHEREOF, the parties hereto have caused this Warrant to be executed by its officers thereunto duly authorized as of the Effective Date.

COMPANY: TRANSORAL PHARMACEUTICALS, INC.
By: /s/ Illegible
Title: Attn: Tom Soloway, Chief Financial Officer
       300 Tamal Plaza
       Corte Madera, CA 94925

WARRANTHOLDER: HERCULES TECHNOLOGY GROWTH CAPITAL, INC.
By: /s/ Illegible
Title: Chief Legal Officer
       Hercules Technology Growth Capital, Inc.
       Attn: Kathy Conte
       525 University Ave, Suite 700
       Palo Alto, CA 94301

cc: Hercules Technology Growth Capital, Inc.
    Attn: Chief Legal Officer
    525 University Avenue
    Suite 700
    Palo Alto, CA 94301
The undersigned TransOral Pharmaceuticals, Inc., hereby acknowledge receipt of the “Notice of Exercise” from Hercules Technology Growth Capital, Inc., to purchase [ ] shares of the Series C Preferred Stock of TransOral Pharmaceuticals, Inc., pursuant to the terms of the Agreement, and further acknowledges that [ ] shares remain subject to purchase under the terms of the Agreement.

COMPANY: TRANSORAL PHARMACEUTICALS, INC.

By: 
Title: 
Date: 
EXHIBIT III
TRANSFER NOTICE

(To transfer or assign the foregoing Agreement execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Agreement and all rights evidenced thereby are hereby transferred and assigned to

(Please Print)
whose address is

__________________________________________________________

Dated: __________________________

Holder’s Signature: __________________________

Holder’s Address: __________________________

__________________________________________________________
WHEREAS, the undersigned Hercules Technology Growth Capital, Inc. (the “Joining Party”) and TransOral Pharmaceuticals, Inc., a Delaware corporation (the “Company”), have entered into a certain Loan and Security Agreement (the “LSA”), dated as of April 13, 2006, and certain other related agreements contemplated thereby, pursuant to which, among other things, the Company will issue to the Joining Party one or more Warrants (the “Warrant”) to purchase an aggregate of up to 434,783 shares of the Company’s Series C Preferred Stock, at an exercise price of $1.15 per share (the “Shares”);

WHEREAS, the parties hereto desire the Joining Party to have certain registration rights with respect to the shares of Common Stock of the Company issuable upon conversion of the Shares pursuant to Sections 1.02, 1.03 and 1.15 of that certain Investors’ Rights Agreement, dated as of October 25, 2005, among the Company and the other parties named therein, as the same may be amended and/or restated from time to time (the “Rights Agreement”), and that the Joining Party be added to the Rights Agreement as parties thereto for the purpose of granting such registration rights;

WHEREAS, Section 3.14 of the Rights Agreement allows the amendment or waiver of such Rights Agreement with the written consent of the Company and the holders of at least 66 2/3% of the Registrable Securities, as defined therein, outstanding (the “Supermajority Holders”); and

WHEREAS, Article V, Section E(3) of the Company’s Amended and Restated Certificate of Incorporation (the “Certificate”) provides that the Supermajority Holders consent to those certain transactions as proposed in the Warrant and LSA.

NOW, THEREFORE, in consideration of the promises contained herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby mutually acknowledged by the parties hereto, the parties hereby covenant and agree as follows:

1. The shares of Common Stock of the Company issuable upon conversion of the Shares shall constitute “Registrable Securities,” as such term is defined in Section 1.01(k) of the Rights Agreement, for all intents and purposes of the registration rights and related provisions and obligations set forth in Sections 1.01 through 1.16 inclusive and Section 3 of the Rights Agreement.

2. The Joining party shall be treated for all purposes under Section 1.01 through 1.16 inclusive, and Section 3 of the Rights Agreement as “Holders,” as such term is defined in Section 1.01(f) of the Rights Agreement.

3. The Joining Party agrees to be bound by the terms and conditions of Sections 1.01 through 1.16 inclusive and Section 3 of the Rights Agreement and shall succeed to and assume all of the rights and obligations of Holders of Registrable Securities for all intents and purposes of such Sections, provided that, the Joining Party shall not be deemed to possess any rights set forth in Section 2 of the Rights Agreement.

4. All notices and other communications under the Rights Agreement shall be made to the Joining Party at the address specified below and thereafter at such other address, notice of which is given in accordance with Section 3.04 of the Rights Agreement:

   Hercules Technology Growth Capital, Inc.
   Attn: Kathy Conte
   525 University Ave, Suite 700
   Palo Alto, CA 94301

   cc: Hercules Technology Growth Capital, Inc.
   Attn: Chief Legal Officer
   525 University Avenue
   Suite 700
   Palo Alto, CA 94301

5. The undersigned hereby consent to the sale and issuance by the Company of the Warrant, and hereby waive on behalf of themselves and all other such holders the right of first offer granted to such holders pursuant to Section 2.01 of the Rights Agreement. The undersigned hereby further consents to and waives (i) any prior
notice periods that may be contained in the Rights Agreement, or in any other documents or instrument that provides for prior notice of the sale and issuance of the Warrant pursuant to the LSA, and (ii) any requirements as set forth in Article V, Section E(3) of the Certificate in connection with the LSA, the Warrant, or any transactions contemplated thereby.

6. The Rights Agreement as modified herein shall remain in full force and effect as so modified

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

TRANSORAL PHARMACEUTICALS, INC.

By: ______________________________
Name: ____________________________
Title: _____________________________

INVESTORS:

See attached pages.
Agreed and Accepted:

HERCULES TECHNOLOGY GROWTH CAPITAL, INC.

By: ____________________________________________

Title: ___________________________________________
November 6, 2014

VIA E-MAIL AND FIRST CLASS MAIL

Hercules Technology Growth Capital, Inc.
525 University Ave, Suite 700
Palo Alto, CA 94301

Attention: Kathy Conte
Copy to: Chief Legal Officer

Re: Notice of Special Dividend

Ladies and Gentlemen:

Reference is hereby made to (i) that certain Warrant Agreement (the “Agreement”), dated as of April 13, 2006, by and between Paratek Pharmaceuticals, Inc. (f/k/a Transcept Pharmaceuticals, Inc. or TransOral Pharmaceuticals, Inc.), a Delaware corporation (the “Company”), and Hercules Technology Growth Capital, Inc., a Maryland corporation (“Hercules”), (ii) the Company’s press release dated October 14, 2014 and Forms 8-K filed with the U.S. Securities and Exchange Commission (the “SEC”) on October 14, 2014 and October 20, 2014, each regarding the Company’s announcement of a special dividend (the “Dividend”) of an initial cash amount of $0.6674 per share (the “Cash Amount”) and the right to receive certain Future Rights (as defined and described in the Company’s Form 8-K filed with the SEC on October 14, 2014), which Cash Amount was paid on October 29, 2014 (the “Payment Date”), and (iii) the Company’s press release dated October 30, 2014 and Form 8-K filed with the SEC on October 31, 2014 regarding a reverse stock split of the Company’s common stock at a ratio of one new share for every twelve shares outstanding (the “Reverse Stock Split”).

Pursuant to Section 8(d)(ii) and 8(f) of the Agreement, the Company hereby provides notice to Hercules that the “Exercise price” (as defined in the Agreement) shall be adjusted from $6.806 to $73.6632 to take into account the effects of the Reverse Stock Split and Cash Amount paid pursuant to the Dividend ($6.806 per share less the Cash Amount of $0.6674 per share = $6.1386 per share, and $6.1386 per share multiplied by 12 for the Reverse Stock Split equals $73.6632 per share). In addition, pursuant to Section 8(f) of the Agreement, the Company hereby provides notice to Hercules that the number of shares of the Company’s common stock issuable upon exercise of the warrant pursuant to the Agreement shall be adjusted from 61,451 shares to 5,120 shares to take into account the effect of the Reverse Stock Split (61,451 divided by 12).

To summarize, after giving effect to the Reverse Stock Split and the Dividend, Hercules has an outstanding warrant to purchase 5,120 shares of the Company’s common stock at an exercise price of $73.6632 per share, expiring on April 13, 2016.
Please do not hesitate to call me at (617) 275-0040 if you have any questions.

Very truly yours,

/s/ Kathryn M. Boxmeyer

Kathryn M. Boxmeyer
Interim Chief Financial Officer
Paratek Pharmaceuticals, Inc.
EXHIBIT 10.22

THIS WARRANT AND THE UNDERLYING SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “ACT”), THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AS TO SUCH SECURITIES UNDER THE ACT OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

PARATEK PHARMACEUTICALS, INC.

WARRANT TO PURCHASE SERIES A PREFERRED STOCK

No. PCW- 1_

April 7, 2014

VOID AFTER APRIL 7, 2021

THIS CERTIFIES THAT, for value received, HBM Healthcare Investments (Cayman) Ltd., with its principal office at Grand Cayman, Cayman Islands, or assigns (the “Holder”), is entitled to subscribe for and purchase from PARATEK PHARMACEUTICALS, INC., a Delaware corporation, (the “Company”) the Exercise Shares at the Exercise Price (each subject to adjustment as provided herein). This Warrant is being issued as one of a series of warrants (the “Warrants”) pursuant to the terms of the Senior Secured Note Purchase Agreement, dated March 7, 2014 by and among the Company and the lenders party thereto (the “Purchase Agreement”). Unless indicated otherwise, the aggregate number of Exercise Shares that Holder may purchase by exercising this warrant is equal to the quotient of (A) the product of (i) 20% multiplied by (ii) the portion of the Remaining Shortfall (as defined in the Purchase Agreement) purchased by the Holder pursuant to Section 2.1(b) of the Purchase Agreement, divided by (B) the Per Share Price, subject to adjustment pursuant to the terms hereof, including but not limited to adjustments pursuant to Section 5, which equates to Forty Seven Thousand, Four Hundred and Thirty Eight (47,438).

1. DEFINITIONS. Capitalized terms used but not defined herein shall have the meanings set forth in the Purchase Agreement. As used herein, the following terms shall have the following respective meanings:

(a) “Exercise Period” shall mean the period commencing with the date hereof and ending seven (7) years later.

(b) “Exercise Price” shall mean shall mean one cent ($0.01) per share, subject to adjustment pursuant to Section 5 below.

(c) “Exercise Shares” shall mean shares of the Company’s Series A Preferred Stock issuable upon exercise of this Warrant.

(d) “Per Share Price” shall mean the Series A Original Issue Price (as such term is defined in the Company’s Amended and Restated Certificate of Incorporation, as may be amended from time to time, which as of the date hereof is $1.00).

1.
2. EXERCISE OF WARRANT. The rights represented by this Warrant may be exercised in whole or in part at any time during the Exercise Period, by delivery of the following to the Company at its address set forth above (or at such other address as it may designate by notice in writing to the Holder):

(a) An executed Notice of Exercise in the form attached hereto;

(b) Payment of the Exercise Price either (i) in cash or by check, or (ii) by cancellation of indebtedness; and

(c) This Warrant.

Upon the exercise of the rights represented by this Warrant, a certificate or certificates for the Exercise Shares so purchased, registered in the name of the Holder or persons affiliated with the Holder, if the Holder so designates, shall be issued and delivered to the Holder within a reasonable time after the rights represented by this Warrant shall have been so exercised. In the event that this Warrant is being exercised for less than all of the then-current number of Exercise Shares purchasable hereunder, the Company shall, concurrently with the issuance by the Company of the number of Exercise Shares for which this Warrant is then being exercised, issue a new Warrant exercisable for the remaining number of Exercise Shares purchasable hereunder.

The person in whose name any certificate or certificates for Exercise Shares are to be issued upon exercise of this Warrant shall be deemed to have become the holder of record of such shares on the date on which this Warrant was surrendered and payment of the Exercise Price was made, irrespective of the date of delivery of such certificate or certificates, except that, if the date of such surrender and payment is a date when the stock transfer books of the Company are closed, such person shall be deemed to have become the holder of such shares at the close of business on the next succeeding date on which the stock transfer books are open.

2.1 Net Exercise. Notwithstanding any provisions herein to the contrary, if the fair market value of one Exercise Share is greater than the Exercise Price (at the date of calculation as set forth below), in lieu of exercising this Warrant by payment of cash, the Holder may elect to receive shares equal to the value (as determined below) of this Warrant (or the portion thereof being canceled) by surrender of this Warrant at the principal office of the Company together with the properly endorsed Notice of Exercise in which event the Company shall issue to the Holder a number of Exercise Shares computed using the following formula:

\[
X = \frac{Y (A-B)}{A}
\]

Where

\[X = \text{the number of Exercise Shares to be issued to the Holder}\]

\[Y = \text{the number of Exercise Shares purchasable under the Warrant or, if only a portion of the Warrant is being exercised, that portion of the Warrant being canceled (at the date of such calculation)}\]

\[A = \text{the fair market value of one Exercise Share (at the date of such calculation)}\]

\[B = \text{Exercise Price (as adjusted to the date of such calculation)}\]

2.
For purposes of the above calculation, the fair market value of one Exercise Share shall be determined by the Company’s Board of Directors in good faith; provided, however, that in the event that this Warrant is exercised pursuant to this Section 2.1 in connection with the Company’s initial public offering of its Common Stock, the fair market value per share shall be the product of (i) the per share offering price to the public of the Company’s initial public offering, and (ii) the number of shares of Common Stock into which each Exercise Share is convertible at the time of such exercise.

3. Covenants of the Company.

3.1 Covenants as to Exercise Shares. The Company covenants and agrees that all Exercise Shares that may be issued upon the exercise of the rights represented by this Warrant will, upon issuance, be validly issued and outstanding, fully paid and nonassessable, and free from all taxes, liens and charges with respect to the issuance thereof. The Company further covenants and agrees that the Company will at all times during the Exercise Period, have authorized and reserved, free from preemptive rights, a sufficient number of shares of the series of equity securities comprising the Exercise Shares to provide for the exercise of the rights represented by this Warrant. If at any time during the Exercise Period the number of authorized but unissued shares of such series of the Company’s equity securities shall not be sufficient to permit exercise of this Warrant, the Company will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of such series of the Company’s equity securities to such number of shares as shall be sufficient for such purposes.

3.2 No Impairment. Except and to the extent as waived or consented to by the Holder, the Company will not, by amendment of its Certificate of Incorporation, or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Company, but will at all times in good faith assist in the carrying out of all the provisions of this Warrant and in the taking of all such action as may be necessary or appropriate in order to protect the exercise rights of the Holder against impairment.

3.3 Notices of Record Date. In the event of any taking by the Company of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend or other distribution, the Company shall mail to the Holder, at least twenty (20) days prior to the date specified herein, a notice specifying the date on which any such record is to be taken for the purpose of such dividend or distribution.

4. Representations of Holder.

4.1 Acquisition of Warrant for Personal Account. The Holder represents and warrants that it is acquiring the Warrant and the Exercise Shares solely for its account for investment and not with a view to or for sale or distribution of said Warrant or Exercise Shares or any part thereof. The Holder also represents that the entire legal and beneficial interests of the Warrant and Exercise Shares the Holder is acquiring is being acquired for, and will be held for, its account only.
4.2 Securities Are Not Registered.

(a) The Holder understands that the Warrant and the Exercise Shares have not been registered under the Securities Act of 1933, as amended (the “Act”) on the basis that no distribution or public offering of the stock of the Company is to be effected. The Holder realizes that the basis for the exemption may not be present if, notwithstanding its representations, the Holder has a present intention of acquiring the securities for a fixed or determinable period in the future, selling (in connection with a distribution or otherwise), granting any participation in, or otherwise distributing the securities. The Holder has no such present intention.

(b) The Holder recognizes that the Warrant and the Exercise Shares must be held indefinitely unless they are subsequently registered under the Act or an exemption from such registration is available. The Holder recognizes that the Company has no obligation to register the Warrant or the Exercise Shares of the Company, or to comply with any exemption from such registration.

(c) The Holder is aware that neither the Warrant nor the Exercise Shares may be sold pursuant to Rule 144 adopted under the Act unless certain conditions are met, including, among other things, the existence of a public market for the shares, the availability of certain current public information about the Company, the resale following the required holding period under Rule 144 and the number of shares being sold during any three month period not exceeding specified limitations. Holder is aware that the conditions for resale set forth in Rule 144 have not been satisfied and that the Company presently has no plans to satisfy these conditions in the foreseeable future.

4.3 Disposition of Warrant and Exercise Shares.

(a) The Holder further agrees not to make any disposition of all or any part of the Warrant or Exercise Shares in any event unless and until:

(i) The Company shall have received a letter secured by the Holder from the Securities and Exchange Commission stating that no action will be recommended to the Commission with respect to the proposed disposition;

(ii) There is then in effect a registration statement under the Act covering such proposed disposition and such disposition is made in accordance with said registration statement; or

(iii) The Holder shall have notified the Company of the proposed disposition and shall have furnished the Company with a detailed statement of the circumstances surrounding the proposed disposition, and if reasonably requested by the Company, the Holder shall have furnished the Company with an opinion of counsel, reasonably satisfactory to the Company, for the Holder to the effect that such disposition will not require registration of such Warrant or Exercise Shares under the Act or any applicable state securities laws. The Company agrees that it will not require an opinion of counsel with respect to transactions under Rule 144 of the Securities Act of 1933, as amended, except in unusual circumstances.

4.
The Holder understands and agrees that all certificates evidencing the shares to be issued to the Holder may bear the following legend:

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “ACT”). THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AS TO THE SECURITIES UNDER THE ACT OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

4.4 Accredited Investor Status. The Holder is an “accredited investor” as defined in Regulation D promulgated under the Act.

5. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF EXERCISE SHARES.

5.1 Changes in Securities. In the event of changes in the series of equity securities of the Company comprising the Exercise Shares by reason of stock dividends, splits, recapitalizations, reclassifications, combinations or exchanges of shares, separations, reorganizations, liquidations, or the like, the number and class of Exercise Shares available under the Warrant in the aggregate and the Exercise Price shall be correspondingly adjusted to give the Holder of the Warrant, on exercise for the same aggregate Exercise Price, the total number, class, and kind of shares as the Holder would have owned had the Warrant been exercised prior to the event and had the Holder continued to hold such shares until after the event requiring adjustment. For purposes of this Section 5, the “Aggregate Exercise Price” shall mean the aggregate Exercise Price payable in connection with the exercise in full of this Warrant. The form of this Warrant need not be changed because of any adjustment in the number of Exercise Shares subject to this Warrant.

5.2 Automatic Conversion. Upon the automatic conversion of all outstanding shares of the series of equity securities comprising the Exercise Shares in accordance with the Company’s Certificate of Incorporation, this Warrant shall become exercisable for that number of shares of Common Stock of the Company into which the Exercise Shares would then be convertible, so long as such shares, if this Warrant had been exercised prior to such offering, would have been converted into shares of the Company’s Common Stock pursuant to the Company’s Certificate of Incorporation. In such case, all references to “Exercise Shares” shall mean shares of the Company’s Common Stock issuable upon exercise of this Warrant, as appropriate.

6. FRACTIONAL SHARES. No fractional shares shall be issued upon the exercise of this Warrant as a consequence of any adjustment pursuant hereto. All Exercise Shares (including fractions) to be issued upon exercise of this Warrant shall be aggregated for purposes of determining whether the exercise would result in the issuance of any fractional share. If, after aggregation, the exercise would result in the issuance of a fractional share, the Company shall, in lieu of issuance of any fractional share, pay the Holder otherwise entitled to such fraction a sum in cash equal to the product resulting from multiplying the then current fair market value of one Exercise Share by such fraction.
7. MARKET STAND-OFF AGREEMENT. Holder hereby agrees that Holder shall not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale, any shares of Common Stock (or other securities) of the Company held by Holder (other than those included in the registration) during the 180-day period following the effective date of the initial public offering (or such longer period, not to exceed 34 days after the expiration of the 180-day period, as the underwriters or the Company shall request in order to facilitate compliance with FINRA Rule 2711 or NYSE Member Rule 472 or any successor or similar rule or regulation) as the underwriters or the Company shall request in order to facilitate compliance with FINRA Rule 2711 or NYSE Member Rule 472 or any successor or similar rule or regulation); provided, that, all officers and directors of the Company and holders of at least one percent (1%) of the Company’s voting securities are bound by and have entered into similar agreements. Holder further agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the managing underwriters that are consistent with the foregoing or that are necessary to give further effect thereto. In addition, if requested by the Company or the representative of the underwriters of Common Stock (or other securities) of the Company, Holder shall provide, within ten (10) days of such request, such information as may be required by the Company or such representative in connection with the completion of any public offering of the Company’s securities pursuant to a registration statement filed under the Securities Act. The obligations described in this Section 8 shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a transaction on Form S-4 or similar forms that may be promulgated in the future. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to such Common Stock (or other securities) until the end of such period. Holder agrees that any transferee of the Warrant (or other securities) of the Company held by Holder shall be bound by this Section 7. The underwriters of the Company’s stock are intended third party beneficiaries of this Section 7 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto.

8. AUTOMATIC EXERCISE. Any portion of this Warrant that has not been earlier exercised prior to the expiration of this Warrant shall be automatically exercised, without any required action by Holder, on a cashless basis as set forth in Section 2.1 immediately prior to the expiration of this Warrant. In the event of a Deemed Liquidation Event (as defined in the Company’s Certificate of Incorporation as in effect on the date hereof), the Company shall notify the Holder in writing at least twenty (20) days prior to the consummation of such event or transaction and, notwithstanding anything to the contrary herein, the Warrant shall be exercisable during such ten (20) day period. Unless this Warrant has been earlier exercised at or immediately prior to the closing of such Deemed Liquidation Event, this Warrant (or any portion thereof that hasn’t been exercised already) shall be automatically exercised, without any required action by Holder, on a cashless basis as set forth in Section 2.1 with such cashless exercise effective and conditioned upon the consummation of such Deemed Liquidation Event.

9. NO STOCKHOLDER RIGHTS. This Warrant in and of itself shall not entitle the Holder to any voting rights or other rights as a stockholder of the Company.

10. TRANSFER OF WARRANT. Subject to applicable laws and the restriction on transfer set forth on the first page of this Warrant, this Warrant and all rights hereunder are
transferable, by the Holder in person or by duly authorized attorney, upon delivery of this Warrant and the form of assignment attached hereto to any transferee designated by Holder. The transferee shall sign an investment letter in form and substance satisfactory to the Company.

11. **Lost, Stolen, Mutilated Or Destroyed Warrant.** If this Warrant is lost, stolen, mutilated or destroyed, the Company may, on such terms as to indemnity or otherwise as it may reasonably impose (which shall, in the case of a mutilated Warrant, include the surrender thereof), issue a new Warrant of like denomination and tenor as the Warrant so lost, stolen, mutilated or destroyed. Any such new Warrant shall constitute an original contractual obligation of the Company, whether or not the allegedly lost, stolen, mutilated or destroyed Warrant shall be at any time enforceable by anyone.

12. **Amendment.** Any term of this Warrant may be amended or waived with the written consent of the Company and Holders of at least a majority-in-interest of the outstanding Warrants, provided that all Warrants are similarly affected. Upon the effectuation of such amendment or waiver in conformance with this Section 11, the Company shall promptly give written notice thereof to the record holders of the Warrants who have not previously consented thereto in writing.

13. **Notices.** All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed telex or facsimile if sent during normal business hours of the recipient, if not, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the Company at the address listed on the signature page and to Holder at Centennial Towers, 3rd Floor, 2454 West Bay Road, Grand Cayman, Cayman Islands or at such other address as the Company or Holder may designate by ten (10) days advance written notice to the other parties hereto; provided, however, only a nationally recognized overnight courier shall be used to effectuate the delivery of any notices to addresses outside the United States.

14. **Acceptance.** Receipt of this Warrant by the Holder shall constitute acceptance of and agreement to all of the terms and conditions contained herein.

15. **Governing Law.** This Warrant and all rights, obligations and liabilities hereunder shall be governed by and construed under the laws of the State of Delaware as applied to agreements among Delaware residents, made and to be performed entirely within the State of Delaware without giving effect to conflicts of laws principles.

16. **Validity.** If any provision of this Warrant shall be judicially determined to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

[Signature Page Follows]
IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its duly authorized officer as of the date first written above.

PARATEK PHARMACEUTICALS, INC.

By: /s/ Dennis Molnar
Dennis Molnar
Chief Executive Officer

Address: 

PARATEK PHARMACEUTICALS, INC.
WARRANT TO PURCHASE SERIES A PREFERRED STOCK – SIGNATURE PAGE
TO: PARATEK PHARMACEUTICALS, INC.

(1) ☐ The undersigned hereby elects to purchase shares of (the “Exercise Shares”) of Paratek Pharmaceuticals, Inc. (the “Company”) pursuant to the terms of the attached Warrant, and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

☐ The undersigned hereby elects to purchase shares of (the “Exercise Shares”) of Paratek Pharmaceuticals, Inc. (the “Company”) pursuant to the terms of the net exercise provisions set forth in Section 2.1 of the attached Warrant, and shall tender payment of all applicable transfer taxes, if any.

(2) Please issue a certificate or certificates representing said Exercise Shares in the name of the undersigned or in such other name as is specified below:

______________________________
(Name)

______________________________
(Address)

(3) The undersigned represents that (i) the aforesaid Exercise Shares are being acquired for the account of the undersigned for investment and not with a view to, or for resale in connection with, the distribution thereof and that the undersigned has no present intention of distributing or reselling such shares; (ii) the undersigned is aware of the Company’s business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision regarding its investment in the Company; (iii) the undersigned is experienced in making investments of this type and has such knowledge and background in financial and business matters that the undersigned is capable of evaluating the merits and risks of this investment and protecting the undersigned’s own interests; (iv) the undersigned understands that Exercise Shares issuable upon exercise of this Warrant have not been registered under the Securities Act of 1933, as amended (the “Securities Act”), by reason of a specific exemption from the registration provisions of the Securities Act, which exemption depends upon, among other things, the bona fide nature of the investment intent as expressed herein, and, because such securities have not been registered under the Securities Act, they must be held indefinitely unless subsequently registered under the Securities Act or an exemption from such registration is available; (v) the undersigned is aware that the aforesaid Exercise Shares may not be sold pursuant to Rule 144 adopted under the Securities Act unless certain conditions are met and until the undersigned has held the shares for the number of years prescribed by Rule 144, that among the conditions for use of the Rule is the availability of current information to the public about the Company and the Company has not made such information available and has no present plans to do so; and (vi) the undersigned agrees not to make any disposition of all or any part of the aforesaid shares of Exercise Shares unless and until

1.
there is then in effect a registration statement under the Securities Act covering such proposed disposition and such disposition is made in accordance with said registration statement, or, if reasonably requested by the Company, the undersigned has provided the Company with an opinion of counsel satisfactory to the Company, stating that such registration is not required.

(Date)  
(Signature)  
(Print name)
ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: ____________________________________________ (Please Print)

Address: ____________________________________________ (Please Print)

Dated: ___________ 20__

Holder’s Signature: _______________________________________

Holder’s Address: _______________________________________

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatever. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.
Dear Ladies and Gentlemen:

Each of HBM Healthcare Investments (Cayman) Ltd., Omega Fund III, L.P. and K/S Danish BioVenture is a holder of a warrant, dated April 7, 2014, April 7, 2014 and April 18, 2014, respectively, to purchase shares of Series A Preferred Stock, $0.001 par value per share (“Series A Preferred Stock”), (collectively, the “Series A Preferred Warrants”) of Paratek Pharmaceuticals, Inc., a Delaware corporation (the “Corporation”).

As you know, the Corporation is a party to that certain Agreement and Plan of Merger and Reorganization, dated as of June 30, 2014, by and among Transcept Pharmaceuticals, Inc., a Delaware corporation (“Tigris”), Tigris Merger Sub, Inc., a Delaware corporation and a wholly owned subsidiary of Tigris (“Merger Sub”), Tigris Acquisition Sub, LLC, a Delaware limited liability company, and the Corporation (the “Merger Agreement”), pursuant to which Merger Sub would merge with and into the Corporation with the Corporation surviving and the stockholders of the Corporation receiving 0.810 shares of Tigris’ common stock, $0.001 par value per share (“Tigris Common Stock”), subject to adjustment to account for Tigris’ proposed 12:1 reverse stock split (the “Exchange Ratio”), for every one share of the Corporation’s common stock, $0.001 par value per share (“Common Stock”), issued and outstanding and held by them immediately prior to the Merger, upon the terms and subject to the conditions set forth therein.
Pursuant to Section 5.5(c) of the Merger Agreement, at the Effective Time (as defined in the Merger Agreement), each Series A Preferred Warrant that is outstanding and unexercised immediately prior to the Effective Time shall become converted into and become a warrant to purchase Tigris Common Stock and Tigris shall assume each such Series A Preferred Warrant in accordance with its terms. In addition, pursuant to Section 5.5(c) of the Merger Agreement, all rights with respect to Common Stock or Series A Preferred Stock under the Series A Preferred Warrants assumed by Tigris shall thereupon be converted into rights with respect to Tigris Common Stock, and, accordingly, from and after the Effective Time: (i) each Series A Preferred Warrant assumed by Tigris may be exercised solely for shares of Tigris Common Stock; (ii) the number of shares of Tigris Common Stock subject to each Series A Preferred Warrant assumed by Tigris shall be determined by multiplying (A) the number of shares of Common Stock issuable upon conversion of the shares of Series A Preferred Stock issuable upon exercise of the Series A Preferred Warrant that were subject to such Series A Preferred Warrant immediately prior to the Effective Time by (B) the Exchange Ratio and rounding the resulting number down to the nearest whole number of shares of Tigris Common Stock; (iii) the per share exercise price for the Tigris Common Stock issuable upon exercise of each Series A Preferred Warrant assumed by Tigris shall be determined by dividing the per share exercise price of Series A Preferred Stock subject to such Series A Preferred Warrant, as in effect immediately prior to the Effective Time, by the Exchange Ratio and rounding the resulting exercise price up to the nearest whole cent; and (iv) any restriction on any Series A Preferred Warrant assumed by Tigris shall continue in full force and effect and the terms and other provisions of such Series A Preferred Warrant shall otherwise remain unchanged.

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Corporation and each of HBM Healthcare Investments (Cayman) Ltd., Omega Fund III, L.P. and K/S Danish BioVenture hereby agree that, contingent upon and effective at the Effective Time, each Series A Preferred Warrant shall be converted into a warrant to purchase Tigris Common Stock and shall be assumed by Tigris upon the terms and subject to the conditions set forth in the Merger Agreement. Each of HBM Healthcare Investments (Cayman) Ltd., Omega Fund III, L.P. and K/S Danish BioVenture hereby further agree not to exercise their respective Series A Preferred Warrant prior to the Effective Time unless and until the Merger Agreement is terminated in accordance with its terms.

This letter agreement may be executed in separate counterparts, each of such counterparts shall for all purposes be deemed to be an original and all such counterparts shall together constitute but one and the same instrument.

[Remainder of Page Intentionally Blank]
If you agree with the foregoing, please sign and return one copy of this letter to the Corporation.

Very truly yours,

PARATEK PHARMACEUTICALS, INC.

By: /s/ Evan Loh
Name: Evan Loh, MD
Title: President
Paratek Pharmaceuticals

CONFIRMED AND AGREED
AS OF THE DATE WRITTEN ABOVE:

HBM HEALTHCARE INVESTMENTS (CAYMAN) LTD.

By: /s/ Jean Marc Lesieur
Name: Jean Marc Lesieur
Title: Director

OMEGA FUND III, L.P.

By: OMEGA FUND III GP, LP
By: OMEGA FUND III GP, LTD.

By: ________________________________
Name: ________________________________
Title: ________________________________

K/S DANISH BIOVENTURE

By: DANISH BIOVENTURE GENERAL PARTNER APS
By: ________________________________
Name: ________________________________
Title: ________________________________

TRANSCEPT PHARMACEUTICALS, INC.

By: ________________________________
Name: ________________________________
Title: ________________________________

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If you agree with the foregoing, please sign and return one copy of this letter to the Corporation.

Very truly yours,

PARATEK PHARMACEUTICALS, INC.

By: /s/ Evan Loh
Name: Evan Loh, MD
Title: President
       Paratek Pharmaceuticals

CONFIRMED AND AGREED
AS OF THE DATE WRITTEN ABOVE:

HBM HEALTHCARE INVESTMENTS (CAYMAN) LTD.

By: 
Name: Jean Marc Lesieur
Title: Director

OMEGA FUND III, L.P.

By: OMEGA FUND III GP, LP
By: OMEGA FUND III GP, LTD.
By: /s/ David Bolton
Name: David Bolton
Title: Director

K/S DANISH BIOVENTURE

By: DANISH BIOVENTURE GENERAL PARTNER APS

By: 
Name: 
Title: 

TRANSCEPT PHARMACEUTICALS, INC.

By: 
Name: 
Title: 

- 3 -
If you agree with the foregoing, please sign and return one copy of this letter to the Corporation.

Very truly yours,

PARATEK PHARMACEUTICALS, INC.

By: /s/ Evan Loh
Name: Evan Loh, MD
Title: President
Paratek Pharmaceuticals

CONFIRMED AND AGREED AS OF THE DATE WRITTEN ABOVE:

HBM HEALTHCARE INVESTMENTS (CAYMAN) LTD.

By: ____________________________________________
Name: Jean Marc Lesieur
Title: Director

OMEGA FUND III, L.P.

By: OMEGA FUND III GP, LP
By: OMEGA FUND III GP, LTD.
By: ____________________________________________
Name: __________________________________________
Title: __________________________________________

K/S DANISH BIOVENTURE

By: DANISH BIOVENTURE GENERAL PARTNER APS
By: /s/ Richard Lim
Name: Richard Lim
Title: Director

TRANSCEPT PHARMACEUTICALS, INC.

By: ____________________________________________
Name: __________________________________________
Title: __________________________________________
If you agree with the foregoing, please sign and return one copy of this letter to the Corporation.

Very truly yours,

PARATEK PHARMACEUTICALS, INC.

By: /s/ Evan Loh
Name: Evan Loh, MD
Title: President
Paratek Pharmaceuticals

CONFIRMED AND AGREED
AS OF THE DATE WRITTEN ABOVE:

HBM HEALTHCARE INVESTMENTS (CAYMAN) LTD.

By: _______________________________________
Name: Jean Marc Lesieur
Title: Director

OMEGA FUND III, L.P.

By: OMEGA FUND III GP, LP
By: OMEGA FUND III GP, LTD.

By: _______________________________________
Name: _______________________________________
Title: _______________________________________

K/S DANISH BIOVENTURE

By: DANISH BIOVENTURE GENERAL PARTNER APS

By: _______________________________________
Name: _______________________________________
Title: _______________________________________

TRANSCEPT PHARMACEUTICALS, INC.

By: /s/ Glenn A. Oclassen
Name: Glenn A. Oclassen
Title: Chmn/CEO

- 3 -
November 7, 2014

HBM Healthcare Investments (Cayman) Ltd.
Attn: Matthias Fehr and Jean-Marc Lesieur
Governors Square, Suite #4-212-2
23 Lime Tree Bay Avenue
West Bay
Grand Cayman, Cayman Islands

Dear Mr. Fehr and Mr. Lesieur:

This letter is to notify you that the merger of Tigris Merger Sub, Inc. ("Merger Sub") with and into Paratek Pharmaceuticals, Inc. ("Old Paratek") pursuant to that certain Agreement and Plan of Merger and Reorganization, dated as of June 30, 2014, by and among Transcept Pharmaceuticals, Inc. ("New Paratek"), Merger Sub, Tigris Acquisition Sub, LLC and Old Paratek (the "Merger Agreement") became effective on October 30, 2014. New Paratek was subsequently renamed “Paratek Pharmaceuticals, Inc.” Under the terms of the Merger Agreement, each outstanding share of common stock of Old Paratek was exchanged for 0.0675 of a share of New Paratek common stock.

Pursuant to the Merger Agreement and that certain letter agreement, dated October 6, 2014, by and among Old Paratek, New Paratek, HBM Healthcare Investments (Cayman) Ltd. ("HBM"), Omega Fund III, L.P. and K/S Danish BioVenture, HBM’s warrant, dated April 7, 2014, to purchase 47,438 shares of Series A Preferred Stock of Old Paratek at an exercise price of $0.01 per share has been converted into and become a warrant to purchase 3,202 shares of New Paratek common stock at an exercise price of $0.15 per share. Pursuant to the Merger Agreement, any restriction on such warrant shall continue in full force and effect and the terms and other provisions of such warrant shall otherwise remain unchanged.

If you have any questions regarding the warrant, please contact Kathryn M. Boxmeyer, our Interim Chief Financial Officer, at (617) 275-0040.

Very truly yours,

PARATEK PHARMACEUTICALS, INC.
(f/k/a Transcept Pharmaceuticals, Inc.)

By: /s/ Evan Loh
Name: Evan Loh
Title: President and Chief Medical Officer
THIS WARRANT AND THE UNDERLYING SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “ACT”). THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AS TO SUCH SECURITIES UNDER THE ACT OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

PARATEK PHARMACEUTICALS, INC.

WARRANT TO PURCHASE SERIES A PREFERRED STOCK

No. PCW-3

April 18, 2014

VOID AFTER APRIL 18, 2021

THIS CERTIFIES THAT, for value received, K/S Danish BioVenture, with its principal office at Boston, Massachusetts, United States of America, or assigns (the “ Holder”), is entitled to subscribe for and purchase from PARATEK PHARMACEUTICALS, INC., a Delaware corporation, (the “Company”) the Exercise Shares at the Exercise Price (each subject to adjustment as provided herein). This Warrant is being issued as one of a series of warrants (the “Warrants”) pursuant to the terms of the Senior Secured Note Purchase Agreement, dated March 7, 2014 by and among the Company and the lenders party thereto (the “Purchase Agreement”). Unless indicated otherwise, the aggregate number of Exercise Shares that Holder may purchase by exercising this warrant is equal to the quotient of (A) the product of (i) 20% multiplied by (ii) the portion of the Remaining Shortfall (as defined in the Purchase Agreement) purchased by the Holder pursuant to Section 2.1(b) of the Purchase Agreement, divided by (B) the Per Share Price, subject to adjustment pursuant to the terms hereof, including but not limited to adjustments pursuant to Section 5, which equates to Thirty Four Thousand, Five Hundred and Ten (34,510).

1. DEFINITIONS. Capitalized terms used but not defined herein shall have the meanings set forth in the Purchase Agreement. As used herein, the following terms shall have the following respective meanings:

(a) “Exercise Period” shall mean the period commencing with the date hereof and ending seven (7) years later.

(b) “Exercise Price” shall mean shall mean one cent ($0.01) per share, subject to adjustment pursuant to Section 5 below.

(c) “Exercise Shares” shall mean shares of the Company’s Series A Preferred Stock issuable upon exercise of this Warrant.

(d) “Per Share Price” shall mean the Series A Original Issue Price (as such term is defined in the Company’s Amended and Restated Certificate of Incorporation, as may be amended from time to time, which as of the date hereof is $1.00).
2. **EXERCISE OF WARRANT.** The rights represented by this Warrant may be exercised in whole or in part at any time during the Exercise Period, by delivery of the following to the Company at its address set forth above (or at such other address as it may designate by notice in writing to the Holder):

(a) An executed Notice of Exercise in the form attached hereto;

(b) Payment of the Exercise Price either (i) in cash or by check, or (ii) by cancellation of indebtedness; and

(c) This Warrant.

Upon the exercise of the rights represented by this Warrant, a certificate or certificates for the Exercise Shares so purchased, registered in the name of the Holder or persons affiliated with the Holder, if the Holder so designates, shall be issued and delivered to the Holder within a reasonable time after the rights represented by this Warrant shall have been so exercised. In the event that this Warrant is being exercised for less than all of the then-current number of Exercise Shares purchasable hereunder, the Company shall, concurrently with the issuance by the Company of the number of Exercise Shares for which this Warrant is then being exercised, issue a new Warrant exercisable for the remaining number of Exercise Shares purchasable hereunder.

The person in whose name any certificate or certificates for Exercise Shares are to be issued upon exercise of this Warrant shall be deemed to have become the holder of record of such shares on the date on which this Warrant was surrendered and payment of the Exercise Price was made, irrespective of the date of delivery of such certificate or certificates, except that, if the date of such surrender and payment is a date when the stock transfer books of the Company are closed, such person shall be deemed to have become the holder of such shares at the close of business on the next succeeding date on which the stock transfer books are open.

2.1 **Net Exercise.** Notwithstanding any provisions herein to the contrary, if the fair market value of one Exercise Share is greater than the Exercise Price (at the date of calculation as set forth below), in lieu of exercising this Warrant by payment of cash, the Holder may elect to receive shares equal to the value (as determined below) of this Warrant (or the portion thereof being canceled) by surrender of this Warrant at the principal office of the Company together with the properly endorsed Notice of Exercise in which event the Company shall issue to the Holder a number of Exercise Shares computed using the following formula:

\[ X = \frac{Y \cdot (A - B)}{A} \]

Where \( X \) = the number of Exercise Shares to be issued to the Holder

\( Y \) = the number of Exercise Shares purchasable under the Warrant or, if only a portion of the Warrant is being exercised, that portion of the Warrant being canceled (at the date of such calculation)

\( A \) = the fair market value of one Exercise Share (at the date of such calculation)

\( B \) = Exercise Price (as adjusted to the date of such calculation)
For purposes of the above calculation, the fair market value of one Exercise Share shall be determined by the Company’s Board of Directors in good faith; provided, however, that in the event that this Warrant is exercised pursuant to this Section 2.1 in connection with the Company’s initial public offering of its Common Stock, the fair market value per share shall be the product of (i) the per share offering price to the public of the Company’s initial public offering, and (ii) the number of shares of Common Stock into which each Exercise Share is convertible at the time of such exercise.

3. Covenants of the Company.

3.1 Covenants as to Exercise Shares. The Company covenants and agrees that all Exercise Shares that may be issued upon the exercise of the rights represented by this Warrant will, upon issuance, be validly issued and outstanding, fully paid and nonassessable, and free from all taxes, liens and charges with respect to the issuance thereof. The Company further covenants and agrees that the Company will at all times during the Exercise Period, have authorized and reserved, free from preemptive rights, a sufficient number of shares of the series of equity securities comprising the Exercise Shares to provide for the exercise of the rights represented by this Warrant. If at any time during the Exercise Period the number of authorized but unissued shares of such series of the Company’s equity securities shall not be sufficient to permit exercise of this Warrant, the Company will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of such series of the Company’s equity securities to such number of shares as shall be sufficient for such purposes.

3.2 No Impairment. Except and to the extent as waived or consented to by the Holder, the Company will not, by amendment of its Certificate of Incorporation, or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Company, but will at all times in good faith assist in the carrying out of all the provisions of this Warrant and in the taking of all such action as may be necessary or appropriate in order to protect the exercise rights of the Holder against impairment.

3.3 Notices of Record Date. In the event of any taking by the Company of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend or other distribution, the Company shall mail to the Holder, at least twenty (20) days prior to the date specified herein, a notice specifying the date on which any such record is to be taken for the purpose of such dividend or distribution.

4. Representations of Holder.

4.1 Acquisition of Warrant for Personal Account. The Holder represents and warrants that it is acquiring the Warrant and the Exercise Shares solely for its account for investment and not with a view to or for sale or distribution of said Warrant or Exercise Shares or any part thereof. The Holder also represents that the entire legal and beneficial interests of the Warrant and Exercise Shares the Holder is acquiring is being acquired for, and will be held for, its account only.

3.
4.2 Securities Are Not Registered.

(a) The Holder understands that the Warrant and the Exercise Shares have not been registered under the Securities Act of 1933, as amended (the “Act”) on the basis that no distribution or public offering of the stock of the Company is to be effected. The Holder realizes that the basis for the exemption may not be present if, notwithstanding its representations, the Holder has a present intention of acquiring the securities for a fixed or determinable period in the future, selling (in connection with a distribution or otherwise), granting any participation in, or otherwise distributing the securities. The Holder has no such present intention.

(b) The Holder recognizes that the Warrant and the Exercise Shares must be held indefinitely unless they are subsequently registered under the Act or an exemption from such registration is available. The Holder recognizes that the Company has no obligation to register the Warrant or the Exercise Shares of the Company, or to comply with any exemption from such registration.

(c) The Holder is aware that neither the Warrant nor the Exercise Shares may be sold pursuant to Rule 144 adopted under the Act unless certain conditions are met, including, among other things, the existence of a public market for the shares, the availability of certain current public information about the Company, the resale following the required holding period under Rule 144 and the number of shares being sold during any three month period not exceeding specified limitations. Holder is aware that the conditions for resale set forth in Rule 144 have not been satisfied and that the Company presently has no plans to satisfy these conditions in the foreseeable future.

4.3 Disposition of Warrant and Exercise Shares.

(a) The Holder further agrees not to make any disposition of all or any part of the Warrant or Exercise Shares in any event unless and until:

(i) The Company shall have received a letter secured by the Holder from the Securities and Exchange Commission stating that no action will be recommended to the Commission with respect to the proposed disposition;

(ii) There is then in effect a registration statement under the Act covering such proposed disposition and such disposition is made in accordance with said registration statement; or

(iii) The Holder shall have notified the Company of the proposed disposition and shall have furnished the Company with a detailed statement of the circumstances surrounding the proposed disposition, and if reasonably requested by the Company, the Holder shall have furnished the Company with an opinion of counsel, reasonably satisfactory to the Company, for the Holder to the effect that such disposition will not require registration of such Warrant or Exercise Shares under the Act or any applicable state securities laws. The Company agrees that it will not require an opinion of counsel with respect to transactions under Rule 144 of the Securities Act of 1933, as amended, except in unusual circumstances.
(b) The Holder understands and agrees that all certificates evidencing the shares to be issued to the Holder may bear the following legend:

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “ACT”). THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AS TO THE SECURITIES UNDER THE ACT OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

4.4 Accredited Investor Status. The Holder is an “accredited investor” as defined in Regulation D promulgated under the Act.

5. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF EXERCISE SHARES.

5.1 Changes in Securities. In the event of changes in the series of equity securities of the Company comprising the Exercise Shares by reason of stock dividends, splits, recapitalizations, reclassifications, combinations or exchanges of shares, separations, reorganizations, liquidations, or the like, the number and class of Exercise Shares available under the Warrant in the aggregate and the Exercise Price shall be correspondingly adjusted to give the Holder of the Warrant, on exercise for the same aggregate Exercise Price, the total number, class, and kind of shares as the Holder would have owned had the Warrant been exercised prior to the event and had the Holder continued to hold such shares until after the event requiring adjustment. For purposes of this Section 5, the “Aggregate Exercise Price” shall mean the aggregate Exercise Price payable in connection with the exercise in full of this Warrant. The form of this Warrant need not be changed because of any adjustment in the number of Exercise Shares subject to this Warrant.

5.2 Automatic Conversion. Upon the automatic conversion of all outstanding shares of the series of equity securities comprising the Exercise Shares in accordance with the Company’s Certificate of Incorporation, this Warrant shall become exercisable for that number of shares of Common Stock of the Company into which the Exercise Shares would then be convertible, so long as such shares, if this Warrant had been exercised prior to such offering, would have been converted into shares of the Company’s Common Stock pursuant to the Company’s Certificate of Incorporation. In such case, all references to “Exercise Shares” shall mean shares of the Company’s Common Stock issuable upon exercise of this Warrant, as appropriate.

6. FRACTIONAL SHARES. No fractional shares shall be issued upon the exercise of this Warrant as a consequence of any adjustment pursuant hereto. All Exercise Shares (including fractions) to be issued upon exercise of this Warrant shall be aggregated for purposes of determining whether the exercise would result in the issuance of any fractional share. If, after aggregation, the exercise would result in the issuance of a fractional share, the Company shall, in lieu of issuance of any fractional share, pay the Holder otherwise entitled to such fraction a sum in cash equal to the product resulting from multiplying the then current fair market value of one Exercise Share by such fraction.
7. **MARKET STAND-OFF AGREEMENT.** Holder hereby agrees that Holder shall not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale, any shares of Common Stock (or other securities) of the Company held by Holder (other than those included in the registration) during the 180-day period following the effective date of the initial public offering (or such longer period, not to exceed 34 days after the expiration of the 180-day period, as the underwriters or the Company shall request in order to facilitate compliance with FINRA Rule 2711 or NYSE Member Rule 472 or any successor or similar rule or regulation) as the underwriters or the Company shall request in order to facilitate compliance with FINRA Rule 2711 or NYSE Member Rule 472 or any successor or similar rule or regulation; provided, that, all officers and directors of the Company and holders of at least one percent (1%) of the Company’s voting securities are bound by and have entered into similar agreements. Holder further agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the managing underwriters that are consistent with the foregoing or that are necessary to give further effect thereto. In addition, if requested by the Company or the representative of the underwriters of Common Stock (or other securities) of the Company, Holder shall provide, within ten (10) days of such request, such information as may be required by the Company or such representative in connection with the completion of any public offering of the Company’s securities pursuant to a registration statement filed under the Securities Act. The obligations described in this Section 8 shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a transaction on Form S-4 or similar forms that may be promulgated in the future. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to such Common Stock (or other securities) until the end of such period. Holder agrees that any transferee of the Warrant (or other securities) of the Company held by Holder shall be bound by this Section 7. The underwriters of the Company’s stock are intended third party beneficiaries of this Section 7 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto.

8. **AUTOMATIC EXERCISE.** Any portion of this Warrant that has not been earlier exercised prior to the expiration of this Warrant shall be automatically exercised, without any required action by Holder, on a cashless basis as set forth in Section 2.1 immediately prior to the expiration of this Warrant. In the event of a Deemed Liquidation Event (as defined in the Company’s Certificate of Incorporation as in effect on the date hereof), the Company shall notify the Holder in writing at least twenty (20) days prior to the consummation of such event or transaction and, notwithstanding anything to the contrary herein, the Warrant shall be exercisable during such ten (20) day period. Unless this Warrant has been earlier exercised at or immediately prior to the closing of such Deemed Liquidation Event, this Warrant (or any portion thereof that hasn’t been exercised already) shall be automatically exercised, without any required action by Holder, on a cashless basis as set forth in Section 2.1 with such cashless exercise effective and conditioned upon the consummation of such Deemed Liquidation Event.

9. **NO STOCKHOLDER RIGHTS.** This Warrant in and of itself shall not entitle the Holder to any voting rights or other rights as a stockholder of the Company.

10. **TRANSFER OF WARRANT.** Subject to applicable laws and the restriction on transfer set forth on the first page of this Warrant, this Warrant and all rights hereunder are
transferable, by the Holder in person or by duly authorized attorney, upon delivery of this Warrant and the form of assignment attached hereto to any transferee designated by Holder. The transferee shall sign an investment letter in form and substance satisfactory to the Company.

11. **Lost, Stolen, Mutilated OR Destroyed Warrant.** If this Warrant is lost, stolen, mutilated or destroyed, the Company may, on such terms as to indemnity or otherwise as it may reasonably impose (which shall, in the case of a mutilated Warrant, include the surrender thereof), issue a new Warrant of like denomination and tenor as the Warrant so lost, stolen, mutilated or destroyed. Any such new Warrant shall constitute an original contractual obligation of the Company, whether or not the allegedly lost, stolen, mutilated or destroyed Warrant shall be at any time enforceable by anyone.

12. **Amendment.** Any term of this Warrant may be amended or waived with the written consent of the Company and Holders of at least a majority-in-interest of the outstanding Warrants, provided that all Warrants are similarly affected. Upon the effectuation of such amendment or waiver in conformance with this Section 11, the Company shall promptly give written notice thereof to the record holders of the Warrants who have not previously consented thereto in writing.

13. **Notices.** All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed telex or facsimile if sent during normal business hours of the recipient, if not, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the Company at the address listed on the signature page and to Holder at 545 Boylston Street, Suite 802, Boston, Massachusetts or at such other address as the Company or Holder may designate by ten (10) days advance written notice to the other parties hereto; provided, however, only a nationally recognized overnight courier shall be used to effectuate the delivery of any notices to addresses outside the United States.

14. **Acceptance.** Receipt of this Warrant by the Holder shall constitute acceptance of and agreement to all of the terms and conditions contained herein.

15. **Governing Law.** This Warrant and all rights, obligations and liabilities hereunder shall be governed by and construed under the laws of the State of Delaware as applied to agreements among Delaware residents, made and to be performed entirely within the State of Delaware without giving effect to conflicts of laws principles.

16. **Validity.** If any provision of this Warrant shall be judicially determined to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

[Signature Page Follows]

7.
IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its duly authorized officer as of the date first written above.

PARATEK PHARMACEUTICALS, INC.

By: /s/ DENNIS MOLNAR
Dennis Molnar
Chief Executive Officer

Address: ________________________________

PARATEK PHARMACEUTICALS, INC.
WARRANT TO PURCHASE SERIES A PREFERRED STOCK—SIGNATURE PAGE
NOTICE OF EXERCISE

TO: PARATEK PHARMACEUTICALS, INC.

(1) ☐ The undersigned hereby elects to purchase shares of (the “Exercise Shares”) of Paratek Pharmaceuticals, Inc. (the “Company”) pursuant to the terms of the attached Warrant, and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

☐ The undersigned hereby elects to purchase shares of (the “Exercise Shares”) of Paratek Pharmaceuticals, Inc. (the “Company”) pursuant to the terms of the net exercise provisions set forth in Section 2.1 of the attached Warrant, and shall tender payment of all applicable transfer taxes, if any.

(2) Please issue a certificate or certificates representing said Exercise Shares in the name of the undersigned or in such other name as is specified below:

__________________________
(Name)

__________________________
(Address)

(3) The undersigned represents that (i) the aforesaid Exercise Shares are being acquired for the account of the undersigned for investment and not with a view to, or for resale in connection with, the distribution thereof and that the undersigned has no present intention of distributing or reselling such shares; (ii) the undersigned is aware of the Company’s business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision regarding its investment in the Company; (iii) the undersigned is experienced in making investments of this type and has such knowledge and background in financial and business matters that the undersigned is capable of evaluating the merits and risks of this investment and protecting the undersigned’s own interests; (iv) the undersigned understands that Exercise Shares issuable upon exercise of this Warrant have not been registered under the Securities Act of 1933, as amended (the “Securities Act”), by reason of a specific exemption from the registration provisions of the Securities Act, which exemption depends upon, among other things, the bona fide nature of the investment intent as expressed herein, and, because such securities have not been registered under the Securities Act, they must be held indefinitely unless subsequently registered under the Securities Act or an exemption from such registration is available; (v) the undersigned is aware that the aforesaid Exercise Shares may not be sold pursuant to Rule 144 adopted under the Securities Act unless certain conditions are met and until the undersigned has held the shares for the number of years prescribed by Rule 144, that among the conditions for use of the Rule is the availability of current information to the public about the Company and the Company has not made such information available and has no present plans to do so; and (vi) the undersigned agrees not to
make any disposition of all or any part of the aforesaid shares of Exercise Shares unless and until there is then in effect a registration statement under the Securities Act covering such proposed disposition and such disposition is made in accordance with said registration statement, or, if reasonably requested by the Company, the undersigned has provided the Company with an opinion of counsel satisfactory to the Company, stating that such registration is not required.

(Date)  
(Signature)  
(Print name)  

2.
ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: ____________________________ (Please Print)

Address: ____________________________ (Please Print)

Dated: __________, 20__

Holder’s Signature: ____________________________

Holder’s Address: ____________________________

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatever. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

3.
Dear Ladies and Gentlemen:

Each of HBM Healthcare Investments (Cayman) Ltd., Omega Fund III, L.P. and K/S Danish BioVenture is a holder of a warrant, dated April 7, 2014, April 7, 2014 and April 18, 2014, respectively, to purchase shares of Series A Preferred Stock, $0.001 par value per share (“Series A Preferred Stock”), (collectively, the “Series A Preferred Warrants”) of Paratek Pharmaceuticals, Inc., a Delaware corporation (“Corporation”).

As you know, the Corporation is a party to that certain Agreement and Plan of Merger and Reorganization, dated as of June 30, 2014, by and among Transcept Pharmaceuticals, Inc., a Delaware corporation (“Tigris”), Tigris Merger Sub, Inc., a Delaware corporation and a wholly owned subsidiary of Tigris (“Merger Sub”), Tigris Acquisition Sub, LLC, a Delaware limited liability company, and the Corporation (the “Merger Agreement”), pursuant to which Merger Sub would merge with and into the Corporation with the Corporation surviving and the stockholders of the Corporation receiving 0.810 shares of Tigris’ common stock, $0.001 par value per share (“Tigris Common Stock”), subject to adjustment to account for Tigris’ proposed 12:1 reverse stock split (the “Exchange Ratio”), for every one share of the Corporation’s common stock, $0.001 par value per share (“Common Stock”), issued and outstanding and held by them immediately prior to the Merger, upon the terms and subject to the conditions set forth therein.

Pursuant to Section 5.5(c) of the Merger Agreement, at the Effective Time (as defined in the Merger Agreement), each Series A Preferred Warrant that is outstanding and unexercised
immediately prior to the Effective Time shall become converted into and become a warrant to purchase Tigris Common Stock and Tigris shall assume each such Series A Preferred Warrant in accordance with its terms. In addition, pursuant to Section 5.5(c) of the Merger Agreement, all rights with respect to Common Stock or Series A Preferred Stock under the Series A Preferred Warrants assumed by Tigris shall thereupon be converted into rights with respect to Tigris Common Stock, and, accordingly, from and after the Effective Time: (i) each Series A Preferred Warrant assumed by Tigris may be exercised solely for shares of Tigris Common Stock; (ii) the number of shares of Tigris Common Stock subject to each Series A Preferred Warrant assumed by Tigris shall be determined by multiplying (A) the number of shares of Common Stock issuable upon conversion of the shares of Series A Preferred Stock issuable upon exercise of the Series A Preferred Warrant that were subject to such Series A Preferred Warrant immediately prior to the Effective Time by (B) the Exchange Ratio and rounding the resulting number down to the nearest whole number of shares of Tigris Common Stock; (iii) the per share exercise price for the Tigris Common Stock issuable upon exercise of each Series A Preferred Warrant assumed by Tigris shall be determined by dividing the per share exercise price of Series A Preferred Stock subject to such Series A Preferred Warrant, as in effect immediately prior to the Effective Time, by the Exchange Ratio and rounding the resulting exercise price up to the nearest whole cent; and (iv) any restriction on any Series A Preferred Warrant assumed by Tigris shall continue in full force and effect and the terms and other provisions of such Series A Preferred Warrant shall otherwise remain unchanged.

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Corporation and each of HBM Healthcare Investments (Cayman) Ltd., Omega Fund III, L.P. and K/S Danish BioVenture hereby agree that, contingent upon and effective at the Effective Time, each Series A Preferred Warrant shall be converted into a warrant to purchase Tigris Common Stock and shall be assumed by Tigris upon the terms and subject to the conditions set forth in the Merger Agreement. Each of HBM Healthcare Investments (Cayman) Ltd., Omega Fund III, L.P. and K/S Danish BioVenture hereby further agree not to exercise their respective Series A Preferred Warrant prior to the Effective Time unless and until the Merger Agreement is terminated in accordance with its terms.

This letter agreement may be executed in separate counterparts, each of such counterparts shall for all purposes be deemed to be an original and all such counterparts shall together constitute but one and the same instrument.
If you agree with the foregoing, please sign and return one copy of this letter to the Corporation.

Very truly yours,

PARATEK PHARMACEUTICALS, INC.

By:  /s/ Evan Loh
Name:  Evan Loh, MD
Title:  President
Paratek Pharmaceuticals

CONFIRMED AND AGREED
AS OF THE DATE WRITTEN ABOVE:

HBM HEALTHCARE INVESTMENTS (CAYMAN) LTD.

By:  /s/ Jean Marc Lesieur
Name:  Jean Marc Lesieur
Title:  Director

OMEGA FUND III, L.P.

By:  OMEGA FUND III GP, LP
By:  OMEGA FUND III GP, LTD.

By:  
Name:  
Title:  

K/S DANISH BIOVENTURE

By:  DANISH BIOVENTURE GENERAL PARTNER APS

By:  
Name:  
Title:  

TRANSCEPT PHARMACEUTICALS, INC.

By:  
Name:  
Title:  

- 3 -
If you agree with the foregoing, please sign and return one copy of this letter to the Corporation.

Very truly yours,

PARATEK PHARMACEUTICALS, INC.

By: /s/ Evan Loh
Name: Evan Loh, MD
Title: President
Paratek Pharmaceuticals

CONFIRMED AND AGREED
AS OF THE DATE WRITTEN ABOVE:

HBM HEALTHCARE INVESTMENTS (CAYMAN) LTD.

By: Jean Marc Lesieur
Name: Jean Marc Lesieur
Title: Director

OMEGA FUND III, L.P.

By: OMEGA FUND III GP, LP

By: OMEGA FUND III GP, LTD.

By: /s/ David Bolton
Name: David Bolton
Title: Director

K/S DANISH BIOVENTURE

By: DANISH BIOVENTURE GENERAL PARTNER APS

By: 
Name: 
Title: 

TRANSCEPT PHARMACEUTICALS, INC.

By: 
Name: 
Title: 

- 3 -
If you agree with the foregoing, please sign and return one copy of this letter to the Corporation.

Very truly yours,

PARATEK PHARMACEUTICALS, INC.

By: /s/ Evan Loh
Name: Evan Loh, MD
Title: President
Paratek Pharmaceuticals

CONFIRMED AND AGREED
AS OF THE DATE WRITTEN ABOVE:

HBM HEALTHCARE INVESTMENTS (CAYMAN) LTD.

By: ________________________________
Name: Jean Marc Lesieur
Title: Director

OMEGA FUND III, L.P.

By: OMEGA FUND III GP, LP

By: OMEGA FUND III GP, LTD.

By: ________________________________
Name: ________________________________
Title: 

K/S DANISH BIOVENTURE

By: DANISH BIOVENTURE GENERAL PARTNER APS

By: /s/ Richard Lim
Name: Richard Lim
Title: Director

TRANSCEPT PHARMACEUTICALS, INC.

By: ________________________________
Name: ________________________________
Title: 

- 3 -
If you agree with the foregoing, please sign and return one copy of this letter to the Corporation.

Very truly yours,

PARATEK PHARMACEUTICALS, INC.

By: /s/ Evan Loh
Name: Evan Loh, MD
Title: President
Paratek Pharmaceuticals

CONFIRMED AND AGREED
AS OF THE DATE WRITTEN ABOVE:

HBM HEALTHCARE INVESTMENTS (CAYMAN) LTD.

By: 
Name: Jean Marc Lesieur
Title: Director

OMEGA FUND III, L.P.

By: OMEGA FUND III GP, LP
By: OMEGA FUND III GP, LTD.

By: 
Name: 
Title: 

K/S DANISH BIOVENTURE

By: DANISH BIOVENTURE GENERAL PARTNER APS

By: 
Name: 
Title: 

TRANSCEPT PHARMACEUTICALS, INC.

By: /s/ Glenn A. Oclassen
Name: Glenn A. Oclassen
Title: Chmn/CEO
Dear Ms. Paster:

This letter is to notify you that the merger of Tigris Merger Sub, Inc. ("Merger Sub") with and into Paratek Pharmaceuticals, Inc. ("Old Paratek") pursuant to that certain Agreement and Plan of Merger and Reorganization, dated as of June 30, 2014, by and among Transcept Pharmaceuticals, Inc. ("New Paratek"), Merger Sub, Tigris Acquisition Sub, LLC and Old Paratek (the "Merger Agreement") became effective on October 30, 2014. New Paratek was subsequently renamed "Paratek Pharmaceuticals, Inc." Under the terms of the Merger Agreement, each outstanding share of common stock of Old Paratek was exchanged for 0.0675 of a share of New Paratek common stock.

Pursuant to the Merger Agreement and that certain letter agreement, dated October 6, 2014, by and among Old Paratek, New Paratek, HBM Healthcare Investments (Cayman) Ltd., Omega Fund III, L.P. and K/S Danish BioVenture ("K/S Danish"). K/S Danish’s warrant, dated April 18, 2014, to purchase 34,510 shares of Series A Preferred Stock of Old Paratek at an exercise price of $0.01 per share has been converted into and become a warrant to purchase 2,329 shares of New Paratek common stock at an exercise price of $0.15 per share. Pursuant to the Merger Agreement, any restriction on such warrant shall continue in full force and effect and the terms and other provisions of such warrant shall otherwise remain unchanged.

If you have any questions regarding the warrant, please contact Kathryn M. Boxmeyer, our Interim Chief Financial Officer, at (617) 275-0040.

Very truly yours,

PARATEK PHARMACEUTICALS, INC.
(f/k/a Transcept Pharmaceuticals, Inc.)

By: /s/ Evan Loh
Name: Evan Loh
Title: President and Chief Medical Officer
THIS WARRANT AND THE UNDERLYING SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “ACT”), THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AS TO SUCH SECURITIES UNDER THE ACT OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

PARATEK PHARMACEUTICALS, INC.

WARRANT TO PURCHASE SERIES A PREFERRED STOCK

No. PCW-2

April 7, 2014

VOID AFTER APRIL 7, 2021

THIS CERTIFIES THAT, for value received, Omega Fund III, L.P., with its principal office at St Peter Port, Guernsey, or assigns (the “Holder”), is entitled to subscribe for and purchase from PARATEK PHARMACEUTICALS, INC., a Delaware corporation, (the “Company”) the Exercise Shares at the Exercise Price (each subject to adjustment as provided herein). This Warrant is being issued as one of a series of warrants (the “Warrants”) pursuant to the terms of the Senior Secured Note Purchase Agreement, dated March 7, 2014 by and among the Company and the lenders party thereto (the “Purchase Agreement”). Unless indicated otherwise, the aggregate number of Exercise Shares that Holder may purchase by exercising this warrant is equal to the quotient of (A) the product of (i) 20% multiplied by (ii) the portion of the Remaining Shortfall (as defined in the Purchase Agreement) purchased by the Holder pursuant to Section 2.1(b) of the Purchase Agreement, divided by (B) the Per Share Price, subject to adjustment pursuant to the terms hereof, including but not limited to adjustments pursuant to Section 5, which equates to Sixty Thousand, Four Hundred and Eighty Nine (60,489).

1. DEFINITIONS. Capitalized terms used but not defined herein shall have the meanings set forth in the Purchase Agreement. As used herein, the following terms shall have the following respective meanings:

(a) “Exercise Period” shall mean the period commencing with the date hereof and ending seven (7) years later.

(b) “Exercise Price” shall mean shall mean one cent ($0.01) per share, subject to adjustment pursuant to Section 5 below.

(c) “Exercise Shares” shall mean shares of the Company’s Series A Preferred Stock issuable upon exercise of this Warrant.

(d) “Per Share Price” shall mean the Series A Original Issue Price (as such term is defined in the Company’s Amended and Restated Certificate of Incorporation, as may be amended from time to time, which as of the date hereof is $1.00).
2. **EXERCISE OF WARRANT.** The rights represented by this Warrant may be exercised in whole or in part at any time during the Exercise Period, by delivery of the following to the Company at its address set forth above (or at such other address as it may designate by notice in writing to the Holder):

(a) An executed Notice of Exercise in the form attached hereto;

(b) Payment of the Exercise Price either (i) in cash or by check, or (ii) by cancellation of indebtedness; and

(c) This Warrant.

Upon the exercise of the rights represented by this Warrant, a certificate or certificates for the Exercise Shares so purchased, registered in the name of the Holder or persons affiliated with the Holder, if the Holder so designates, shall be issued and delivered to the Holder within a reasonable time after the rights represented by this Warrant shall have been so exercised. In the event that this Warrant is being exercised for less than all of the then-current number of Exercise Shares purchasable hereunder, the Company shall, concurrently with the issuance by the Company of the number of Exercise Shares for which this Warrant is then being exercised, issue a new Warrant exercisable for the remaining number of Exercise Shares purchasable hereunder.

The person in whose name any certificate or certificates for Exercise Shares are to be issued upon exercise of this Warrant shall be deemed to have become the holder of record of such shares on the date on which this Warrant was surrendered and payment of the Exercise Price was made, irrespective of the date of delivery of such certificate or certificates, except that, if the date of such surrender and payment is a date when the stock transfer books of the Company are closed, such person shall be deemed to have become the holder of such shares at the close of business on the next succeeding date on which the stock transfer books are open.

2.1 **Net Exercise.** Notwithstanding any provisions herein to the contrary, if the fair market value of one Exercise Share is greater than the Exercise Price (at the date of calculation as set forth below), in lieu of exercising this Warrant by payment of cash, the Holder may elect to receive shares equal to the value (as determined below) of this Warrant (or the portion thereof being canceled) by surrender of this Warrant at the principal office of the Company together with the properly endorsed Notice of Exercise in which event the Company shall issue to the Holder a number of Exercise Shares computed using the following formula:

\[ X = \frac{Y (A - B)}{A} \]

Where

\( X \) = the number of Exercise Shares to be issued to the Holder

\( Y \) = the number of Exercise Shares purchasable under the Warrant or, if only a portion of the Warrant is being exercised, that portion of the Warrant being canceled (at the date of such calculation)

\( A \) = the fair market value of one Exercise Share (at the date of such calculation)

\( B \) = Exercise Price (as adjusted to the date of such calculation)

2.
For purposes of the above calculation, the fair market value of one Exercise Share shall be determined by the Company’s Board of Directors in good faith; provided, however, that in the event that this Warrant is exercised pursuant to this Section 2.1 in connection with the Company’s initial public offering of its Common Stock, the fair market value per share shall be the product of (i) the per share offering price to the public of the Company’s initial public offering, and (ii) the number of shares of Common Stock into which each Exercise Share is convertible at the time of such exercise.

3. Covenants of the Company.

3.1 Covenants as to Exercise Shares. The Company covenants and agrees that all Exercise Shares that may be issued upon the exercise of the rights represented by this Warrant will, upon issuance, be validly issued and outstanding, fully paid and nonassessable, and free from all taxes, liens and charges with respect to the issuance thereof. The Company further covenants and agrees that the Company will at all times during the Exercise Period, have authorized and reserved, free from preemptive rights, a sufficient number of shares of the series of equity securities comprising the Exercise Shares to provide for the exercise of the rights represented by this Warrant. If at any time during the Exercise Period the number of authorized but unissued shares of such series of the Company’s equity securities shall not be sufficient to permit exercise of this Warrant, the Company will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of such series of the Company’s equity securities to such number of shares as shall be sufficient for such purposes.

3.2 No Impairment. Except and to the extent as waived or consented to by the Holder, the Company will not, by amendment of its Certificate of Incorporation, or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Company, but will at all times in good faith assist in the carrying out of all the provisions of this Warrant and in the taking of all such action as may be necessary or appropriate in order to protect the exercise rights of the Holder against impairment.

3.3 Notices of Record Date. In the event of any taking by the Company of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend or other distribution, the Company shall mail to the Holder, at least twenty (20) days prior to the date specified herein, a notice specifying the date on which any such record is to be taken for the purpose of such dividend or distribution.

4. Representations of Holder.

4.1 Acquisition of Warrant for Personal Account. The Holder represents and warrants that it is acquiring the Warrant and the Exercise Shares solely for its account for investment and not with a view to or for sale or distribution of said Warrant or Exercise Shares or any part thereof. The Holder also represents that the entire legal and beneficial interests of the Warrant and Exercise Shares the Holder is acquiring is being acquired for, and will be held for, its account only.
4.2 Securities Are Not Registered.

(a) The Holder understands that the Warrant and the Exercise Shares have not been registered under the Securities Act of 1933, as amended (the “Act”) on the basis that no distribution or public offering of the stock of the Company is to be effected. The Holder realizes that the basis for the exemption may not be present if, notwithstanding its representations, the Holder has a present intention of acquiring the securities for a fixed or determinable period in the future, selling (in connection with a distribution or otherwise), granting any participation in, or otherwise distributing the securities. The Holder has no such present intention.

(b) The Holder recognizes that the Warrant and the Exercise Shares must be held indefinitely unless they are subsequently registered under the Act or an exemption from such registration is available. The Holder recognizes that the Company has no obligation to register the Warrant or the Exercise Shares of the Company, or to comply with any exemption from such registration.

(c) The Holder is aware that neither the Warrant nor the Exercise Shares may be sold pursuant to Rule 144 adopted under the Act unless certain conditions are met, including, among other things, the existence of a public market for the shares, the availability of certain current public information about the Company, the resale following the required holding period under Rule 144 and the number of shares being sold during any three month period not exceeding specified limitations. Holder is aware that the conditions for resale set forth in Rule 144 have not been satisfied and that the Company presently has no plans to satisfy these conditions in the foreseeable future.

4.3 Disposition of Warrant and Exercise Shares.

(a) The Holder further agrees not to make any disposition of all or any part of the Warrant or Exercise Shares in any event unless and until:

(i) The Company shall have received a letter secured by the Holder from the Securities and Exchange Commission stating that no action will be recommended to the Commission with respect to the proposed disposition;

(ii) There is then in effect a registration statement under the Act covering such proposed disposition and such disposition is made in accordance with said registration statement; or

(iii) The Holder shall have notified the Company of the proposed disposition and shall have furnished the Company with a detailed statement of the circumstances surrounding the proposed disposition, and if reasonably requested by the Company, the Holder shall have furnished the Company with an opinion of counsel, reasonably satisfactory to the Company, for the Holder to the effect that such disposition will not require registration of such Warrant or Exercise Shares under the Act or any applicable state securities laws. The Company agrees that it will not require an opinion of counsel with respect to transactions under Rule 144 of the Securities Act of 1933, as amended, except in unusual circumstances.
The Holder understands and agrees that all certificates evidencing the shares to be issued to the Holder may bear the following legend:

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “ACT”). THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AS TO THE SECURITIES UNDER THE ACT OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

4.4 Accredited Investor Status. The Holder is an “accredited investor” as defined in Regulation D promulgated under the Act.

5. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF EXERCISE SHARES.

5.1 Changes in Securities. In the event of changes in the series of equity securities of the Company comprising the Exercise Shares by reason of stock dividends, splits, recapitalizations, reclassifications, combinations or exchanges of shares, separations, reorganizations, liquidations, or the like, the number and class of Exercise Shares available under the Warrant in the aggregate and the Exercise Price shall be correspondingly adjusted to give the Holder of the Warrant, on exercise for the same aggregate Exercise Price, the total number, class, and kind of shares as the Holder would have owned had the Warrant been exercised prior to the event and had the Holder continued to hold such shares until after the event requiring adjustment. For purposes of this Section 5, the “Aggregate Exercise Price” shall mean the aggregate Exercise Price payable in connection with the exercise in full of this Warrant. The form of this Warrant need not be changed because of any adjustment in the number of Exercise Shares subject to this Warrant.

5.2 Automatic Conversion. Upon the automatic conversion of all outstanding shares of the series of equity securities comprising the Exercise Shares in accordance with the Company’s Certificate of Incorporation, this Warrant shall become exercisable for that number of shares of Common Stock of the Company into which the Exercise Shares would then be convertible, so long as such shares, if this Warrant had been exercised prior to such offering, would have been converted into shares of the Company’s Common Stock pursuant to the Company’s Certificate of Incorporation. In such case, all references to “Exercise Shares” shall mean shares of the Company’s Common Stock issuable upon exercise of this Warrant, as appropriate.

6. FRACTIONAL SHARES. No fractional shares shall be issued upon the exercise of this Warrant as a consequence of any adjustment pursuant hereto. All Exercise Shares (including fractions) to be issued upon exercise of this Warrant shall be aggregated for purposes of determining whether the exercise would result in the issuance of any fractional share. If, after aggregation, the exercise would result in the issuance of a fractional share, the Company shall, in lieu of issuance of any fractional share, pay the holder otherwise entitled to such fraction a sum in cash equal to the product resulting from multiplying the then current fair market value of one Exercise Share by such fraction.
7. MARKET STAND-OFF AGREEMENT. Holder hereby agrees that Holder shall not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale, any shares of Common Stock (or other securities) of the Company held by Holder (other than those included in the registration) during the 180-day period following the effective date of the initial public offering (or such longer period, not to exceed 34 days after the expiration of the 180-day period, as the underwriters or the Company shall request in order to facilitate compliance with FINRA Rule 2711 or NYSE Member Rule 472 or any successor or similar rule or regulation) as the underwriters or the Company shall request in order to facilitate compliance with FINRA Rule 2711 or NYSE Member Rule 472 or any successor or similar rule or regulation); provided, that, all officers and directors of the Company and holders of at least one percent (1%) of the Company’s voting securities are bound by and have entered into similar agreements. Holder further agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the managing underwriters that are consistent with the foregoing or that are necessary to give further effect thereto. In addition, if requested by the Company or the representative of the underwriters of Common Stock (or other securities) of the Company, Holder shall provide, within ten (10) days of such request, such information as may be required by the Company or such representative in connection with the completion of any public offering of the Company’s securities pursuant to a registration statement filed under the Securities Act. The obligations described in this Section 8 shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a transaction on Form S-4 or similar forms that may be promulgated in the future. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to such Common Stock (or other securities) until the end of such period. Holder agrees that any transferee of the Warrant (or other securities) of the Company held by Holder shall be bound by this Section 7. The underwriters of the Company’s stock are intended third party beneficiaries of this Section 7 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto.

8. AUTOMATIC EXERCISE. Any portion of this Warrant that has not been earlier exercised prior to the expiration of this Warrant shall be automatically exercised, without any required action by Holder, on a cashless basis as set forth in Section 2.1 immediately prior to the expiration of this Warrant. In the event of a Deemed Liquidation Event (as defined in the Company’s Certificate of Incorporation as in effect on the date hereof), the Company shall notify the Holder in writing at least twenty (20) days prior to the consummation of such event or transaction and, notwithstanding anything to the contrary herein, the Warrant shall be exercisable during such ten (20) day period. Unless this Warrant has been earlier exercised at or immediately prior to the closing of such Deemed Liquidation Event, this Warrant (or any portion thereof that hasn’t been exercised already) shall be automatically exercised, without any required action by Holder, on a cashless basis as set forth in Section 2.1 with such cashless exercise effective and conditioned upon the consummation of such Deemed Liquidation Event.

9. NO STOCKHOLDER RIGHTS. This Warrant in and of itself shall not entitle the Holder to any voting rights or other rights as a stockholder of the Company.

10. TRANSFER OF WARRANT. Subject to applicable laws and the restriction on transfer set forth on the first page of this Warrant, this Warrant and all rights hereunder are
transferable, by the Holder in person or by duly authorized attorney, upon delivery of this Warrant and the form of assignment attached hereto to any transferee designated by Holder. The transferee shall sign an investment letter in form and substance satisfactory to the Company.

11. LOST, STOLEN, MUTILATED OR DESTROYED WARRANT. If this Warrant is lost, stolen, mutilated or destroyed, the Company may, on such terms as to indemnity or otherwise as it may reasonably impose (which shall, in the case of a mutilated Warrant, include the surrender thereof), issue a new Warrant of like denomination and tenor as the Warrant so lost, stolen, mutilated or destroyed. Any such new Warrant shall constitute an original contractual obligation of the Company, whether or not the allegedly lost, stolen, mutilated or destroyed Warrant shall be at any time enforceable by anyone.

12. AMENDMENT. Any term of this Warrant may be amended or waived with the written consent of the Company and Holders of at least a majority-in-interest of the outstanding Warrants, provided that all Warrants are similarly affected. Upon the effectuation of such amendment or waiver in conformance with this Section 11, the Company shall promptly give written notice thereof to the record holders of the Warrants who have not previously consented thereto in writing.

13. NOTICES. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed telex or facsimile if sent during normal business hours of the recipient, if not, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the Company at the address listed on the signature page and to Holder at 1 Royal Plaza, Royal Avenue, St Peter Port, Guernsey or at such other address as the Company or Holder may designate by ten (10) days advance written notice to the other parties hereto; provided, however, only a nationally recognized overnight courier shall be used to effectuate the delivery of any notices to addresses outside the United States.

14. ACCEPTANCE. Receipt of this Warrant by the Holder shall constitute acceptance of and agreement to all of the terms and conditions contained herein.

15. GOVERNING LAW. This Warrant and all rights, obligations and liabilities hereunder shall be governed by and construed under the laws of the State of Delaware as applied to agreements among Delaware residents, made and to be performed entirely within the State of Delaware without giving effect to conflicts of laws principles.

16. VALIDITY. If any provision of this Warrant shall be judicially determined to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

[Signature Page Follows]
IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its duly authorized officer as of the date first written above.

PARATEK PHARMACEUTICALS, INC.

By: /s/ Dennis Molnar
   Dennis Molnar
   Chief Executive Officer

Address: ________________________________
NOTICE OF EXERCISE

TO: PARATEK PHARMACEUTICALS, INC.

(1) ☐ The undersigned hereby elects to purchase shares of (the “Exercise Shares”) of Paratek Pharmaceuticals, Inc. (the “Company”) pursuant to the terms of the attached Warrant, and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

☐ The undersigned hereby elects to purchase shares of (the “Exercise Shares”) of Paratek Pharmaceuticals, Inc. (the “Company”) pursuant to the terms of the net exercise provisions set forth in Section 2.1 of the attached Warrant, and shall tender payment of all applicable transfer taxes, if any.

(2) Please issue a certificate or certificates representing said Exercise Shares in the name of the undersigned or in such other name as is specified below:

________________________________________
(Name)

________________________________________
(Address)

(3) The undersigned represents that (i) the aforesaid Exercise Shares are being acquired for the account of the undersigned for investment and not with a view to, or for resale in connection with, the distribution thereof and that the undersigned has no present intention of distributing or reselling such shares; (ii) the undersigned is aware of the Company’s business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision regarding its investment in the Company; (iii) the undersigned is experienced in making investments of this type and has such knowledge and background in financial and business matters that the undersigned is capable of evaluating the merits and risks of this investment and protecting the undersigned’s own interests; (iv) the undersigned understands that Exercise Shares issuable upon exercise of this Warrant have not been registered under the Securities Act of 1933, as amended (the “Securities Act”), by reason of a specific exemption from the registration provisions of the Securities Act, which exemption depends upon, among other things, the bona fide nature of the investment intent as expressed herein, and, because such securities have not been registered under the Securities Act, they must be held indefinitely unless subsequently registered under the Securities Act or an exemption from such registration is available; (v) the undersigned is aware that the aforesaid Exercise Shares may not be sold pursuant to Rule 144 adopted under the Securities Act unless certain conditions are met and until the undersigned has held the shares for the number of years prescribed by Rule 144, that among the conditions for use of the Rule is the availability of current information to the public about the Company and the Company has not made such information available and has no present plans to do so; and (vi) the undersigned agrees not to make any disposition of all or any part of the aforesaid shares of Exercise Shares unless and until
there is then in effect a registration statement under the Securities Act covering such proposed disposition and such disposition is made in accordance with said registration statement, or, if reasonably requested by the Company, the undersigned has provided the Company with an opinion of counsel satisfactory to the Company, stating that such registration is not required.

(Date)  (Signature)

(Print name)  

2.
ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: __________________________________________ (Please Print)

Address: __________________________________________ (Please Print)

Dated: __________, 20__

Holder’s Signature: __________________________________________

Holder’s Address: __________________________________________

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatever. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.
Dear Ladies and Gentlemen:

Each of HBM Healthcare Investments (Cayman) Ltd., Omega Fund III, L.P. and K/S Danish BioVenture is a holder of a warrant, dated April 7, 2014, April 7, 2014 and April 18, 2014, respectively, to purchase shares of Series A Preferred Stock, $0.001 par value per share (“Series A Preferred Stock”), (collectively, the “Series A Preferred Warrants”) of Paratek Pharmaceuticals, Inc., a Delaware corporation (the “Corporation”).

As you know, the Corporation is a party to that certain Agreement and Plan of Merger and Reorganization, dated as of June 30, 2014, by and among Transcept Pharmaceuticals, Inc., a Delaware corporation (“Tigris”), Tigris Merger Sub, Inc., a Delaware corporation and a wholly owned subsidiary of Tigris (“Merger Sub”), Tigris Acquisition Sub, LLC, a Delaware limited liability company, and the Corporation (the “Merger Agreement”), pursuant to which Merger Sub would merge with and into the Corporation with the Corporation surviving and the stockholders of the Corporation receiving 0.810 shares of Tigris’ common stock, $0.001 par value per share (“Tigris Common Stock”), subject to adjustment to account for Tigris’ proposed 12:1 reverse stock split (the “Exchange Ratio”), for every one share of the Corporation’s common stock, $0.001 par value per share (“Common Stock”), issued and outstanding and held by them immediately prior to the Merger, upon the terms and subject to the conditions set forth therein.
Pursuant to Section 5.5(c) of the Merger Agreement, at the Effective Time (as defined in the Merger Agreement), each Series A Preferred Warrant that is outstanding and unexercised immediately prior to the Effective Time shall become converted into and become a warrant to purchase Tigris Common Stock and Tigris shall assume each such Series A Preferred Warrant in accordance with its terms. In addition, pursuant to Section 5.5(c) of the Merger Agreement, all rights with respect to Common Stock or Series A Preferred Stock under the Series A Preferred Warrants assumed by Tigris shall thereupon be converted into rights with respect to Tigris Common Stock, and, accordingly, from and after the Effective Time: (i) each Series A Preferred Warrant assumed by Tigris may be exercised solely for shares of Tigris Common Stock; (ii) the number of shares of Tigris Common Stock subject to each Series A Preferred Warrant assumed by Tigris shall be determined by multiplying (A) the number of shares of Common Stock issuable upon conversion of the shares of Series A Preferred Stock issuable upon exercise of the Series A Preferred Warrant that were subject to such Series A Preferred Warrant immediately prior to the Effective Time by (B) the Exchange Ratio and rounding the resulting number down to the nearest whole number of shares of Tigris Common Stock; (iii) the per share exercise price for the Tigris Common Stock issuable upon exercise of each Series A Preferred Warrant assumed by Tigris shall be determined by dividing the per share exercise price of Series A Preferred Stock subject to such Series A Preferred Warrant, as in effect immediately prior to the Effective Time, by the Exchange Ratio and rounding the resulting exercise price up to the nearest whole cent; and (iv) any restriction on any Series A Preferred Warrant assumed by Tigris shall continue in full force and effect and the terms and other provisions of such Series A Preferred Warrant shall otherwise remain unchanged.

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Corporation and each of HBM Healthcare Investments (Cayman) Ltd., Omega Fund III, L.P. and K/S Danish BioVenture hereby agree that, contingent upon and effective at the Effective Time, each Series A Preferred Warrant shall be converted into a warrant to purchase Tigris Common Stock and shall be assumed by Tigris upon the terms and subject to the conditions set forth in the Merger Agreement. Each of HBM Healthcare Investments (Cayman) Ltd., Omega Fund III, L.P. and K/S Danish BioVenture hereby further agree not to exercise their respective Series A Preferred Warrant prior to the Effective Time unless and until the Merger Agreement is terminated in accordance with its terms.

This letter agreement may be executed in separate counterparts, each of such counterparts shall for all purposes be deemed to be an original and all such counterparts shall together constitute but one and the same instrument.

[Remainder of Page Intentionally Blank]

- 2 -
If you agree with the foregoing, please sign and return one copy of this letter to the Corporation.

Very truly yours,

PARATEK PHARMACEUTICALS, INC.

By: /s/ Evan Loh
Name: Evan Loh, MD
Title: President
Paratek Pharmaceuticals

CONFIRMED AND AGREED
AS OF THE DATE WRITTEN ABOVE:

HBM HEALTHCARE INVESTMENTS (CAYMAN) LTD.

By: /s/ Jean Marc Lesieur
Name: Jean Marc Lesieur
Title: Director

OMEGA FUND III, L.P.

By: OMEGA FUND III GP, LP

By: OMEGA FUND III GP, LTD.

By: ____________________________
Name: ____________________________
Title: ____________________________

K/S DANISH BIOVENTURE

By: DANISH BIOVENTURE GENERAL PARTNER APS

By: ____________________________
Name: ____________________________
Title: ____________________________

TRANSCEPT PHARMACEUTICALS, INC.

By: ____________________________
Name: ____________________________
Title: ____________________________
If you agree with the foregoing, please sign and return one copy of this letter to the Corporation.

Very truly yours,

PARATEK PHARMACEUTICALS, INC.

By: /s/ Evan Loh
Name: Evan Loh, MD
Title: President
Paratek Pharmaceuticals

CONFIRMED AND AGREED
AS OF THE DATE WRITTEN ABOVE:

HBM HEALTHCARE INVESTMENTS (CAYMAN) LTD.

By: 
Name: Jean Marc Lesieur
Title: Director

OMEGA FUND III, L.P.

By: OMEGA FUND III GP, LP
By: OMEGA FUND III GP, LTD.
By: /s/ David Bolton
Name: David Bolton
Title: Director

K/S DANISH BIOVENTURE

By: DANISH BIOVENTURE GENERAL PARTNER APS
By: 
Name: 
Title: 

TRANSCEPT PHARMACEUTICALS, INC.

By: 
Name: 
Title: 

- 3 -
If you agree with the foregoing, please sign and return one copy of this letter to the Corporation.

Very truly yours,

PARATEK PHARMACEUTICALS, INC.

By: /s/ Evan Loh
Name: Evan Loh, MD
Title: President
Paratek Pharmaceuticals

CONFIRMED AND AGREED
AS OF THE DATE WRITTEN ABOVE:

HBM HEALTHCARE INVESTMENTS (CAYMAN) LTD.

By: ______________________________
Name: Jean Marc Lesieur
Title: Director

OMEGA FUND III, L.P.

By: OMEGA FUND III GP, LP
By: OMEGA FUND III GP, LTD.

By: ______________________________
Name: ______________________________
Title: ______________________________

K/S DANISH BIOVENTURE

By: DANISH BIOVENTURE GENERAL PARTNER APS

By: /s/ Richard Lim
Name: Richard Lim
Title: Director

TRANSCEPT PHARMACEUTICALS, INC.

By: ______________________________
Name: ______________________________
Title: ______________________________
If you agree with the foregoing, please sign and return one copy of this letter to the Corporation.

Very truly yours,

PARATEK PHARMACEUTICALS, INC.

By: /s/ Evan Loh
Name: Evan Loh, MD
Title: President
Paratek Pharmaceuticals

CONFIRMED AND AGREED AS OF THE DATE WRITTEN ABOVE:

HBM HEALTHCARE INVESTMENTS (CAYMAN) LTD.

By: 
Name: Jean Marc Lesieur
Title: Director

OMEGA FUND III, L.P.

By: OMEGA FUND III GP, LP
By: OMEGA FUND III GP, LTD.

By: 
Name: 
Title: 

K/S DANISH BIOVENTURE

By: DANISH BIOVENTURE GENERAL PARTNER APS

By: 
Name: 
Title: 

TRANSCEPT PHARMACEUTICALS, INC.

By: /s/ Glenn A. Oclassen
Name: Glenn A. Oclassen
Title: Chmn/CEO
November 7, 2014

Omega Fund III, L.P.
Attn: Anne-Mari Paster
1 Royal Plaza
Royal Avenue
St. Peter Port Guernsey

Dear Ms. Paster:

This letter is to notify you that the merger of Tigris Merger Sub, Inc. ("Merger Sub") with and into Paratek Pharmaceuticals, Inc. ("Old Paratek") pursuant to that certain Agreement and Plan of Merger and Reorganization, dated as of June 30, 2014, by and among Transcept Pharmaceuticals, Inc. ("New Paratek"), Merger Sub, Tigris Acquisition Sub, LLC and Old Paratek (the "Merger Agreement") became effective on October 30, 2014. New Paratek was subsequently renamed "Paratek Pharmaceuticals, Inc." Under the terms of the Merger Agreement, each outstanding share of common stock of Old Paratek was exchanged for 0.0675 of a share of New Paratek common stock.

Pursuant to the Merger Agreement and that certain letter agreement, dated October 6, 2014, by and among Old Paratek, New Paratek, HBM Healthcare Investments (Cayman) Ltd., Omega Fund III, L.P. ("Omega") and K/S Danish BioVenture, Omega’s warrant, dated April 7, 2014, to purchase 60,489 shares of Series A Preferred Stock of Old Paratek at an exercise price of $0.01 per share has been converted into and become a warrant to purchase 4,083 shares of New Paratek common stock at an exercise price of $0.15 per share. Pursuant to the Merger Agreement, any restriction on such warrant shall continue in full force and effect and the terms and other provisions of such warrant shall otherwise remain unchanged.

If you have any questions regarding the warrant, please contact Kathryn M. Boxmeyer, our Interim Chief Financial Officer, at (617) 275-0040.

Very truly yours,

PARATEK PHARMACEUTICALS, INC.
(f/k/a Transcept Pharmaceuticals, Inc.)

By: /s/ Evan Loh
Name: Evan Loh
Title: President and Chief Medical Officer
April 2, 2015

Securities and Exchange Commission
100 F Street, N.E.
Washington, DC 20549

Commissioners:

We have read the statements made by Paratek Pharmaceuticals, Inc. (copy attached), which we understand will be filed with the Securities and Exchange Commission, pursuant to Item 9 of Form 10-K, as part of the Form 10-K of Paratek Pharmaceuticals, Inc. dated April 2, 2015. We agree with the statements concerning our Firm in such Form 10-K.

Very truly yours,

/s/ PricewaterhouseCoopers L.L.P.
April 2, 2015

Securities and Exchange Commission
100 F Street, N.E.
Washington, DC 20549

Ladies and Gentlemen:

We have read the statements of Paratek Pharmaceuticals, Inc., pertaining to our firm included under Item 9 of Form 10-K dated April 2, 2015, and agree with such statements as they pertain to our firm. We have no basis to agree or disagree with other statements of the registrant contained therein.

Sincerely,

/s/ Mayer Hoffman McCann, PC.
<table>
<thead>
<tr>
<th>Name</th>
<th>State or Jurisdiction of Incorporation or Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paratek Pharma, LLC</td>
<td>Delaware</td>
</tr>
<tr>
<td>Paratek Securities Corporation</td>
<td>Massachusetts</td>
</tr>
<tr>
<td>Paratek UK, LTD</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Transcept Pharma, Inc.</td>
<td>Delaware</td>
</tr>
</tbody>
</table>
Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in Registration Statement Nos. 333-145840, 333-167598, 333-188171, and 333-201458 on Form S-3 and Registration Statement Nos. 333-135506, 333-150869, 333-157927, 333-157929, 333-160222, 333-164468, 333-172041, 333-180517, 333-187254, 333-194624, and 333-201204 on Form S-8 of Paratek Pharmaceuticals, Inc. of our report dated April 1, 2015, on our audits of the consolidated financial statements of Paratek Pharmaceuticals, Inc. as of December 31, 2014 and 2013 and for the years then ended, which report is included in this Annual Report on Form 10-K of Paratek Pharmaceuticals, Inc. for the year ended December 31, 2014.

/s/ CohnReznick LLP

Vienna, Virginia
April 2, 2015
CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Michael F. Bingham, certify that:

1. I have reviewed this Annual Report on Form 10-K of Paratek Pharmaceuticals Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

/s/ MICHAEL F. BIGHAM

Michael F. Bingham
Chief Executive Officer
April 2, 2015
CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I Douglas W. Pagán, certify that:

1. I have reviewed this Annual Report on Form 10-K of Paratek Pharmaceuticals Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant’s other certifying officer(s) and I am responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

/s/ DOUGLAS W. PAGAN

Douglas W. Pagán
Chief Financial Officer
April 2, 2015
CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Michael F. Bigham, Chief Executive Officer of Paratek Pharmaceuticals, Inc. (the “Company”), hereby certifies that, to the best of his knowledge:

1. The Company’s Annual Report on Form 10-K for the year ended December 31, 2014 (the “Annual Report”), to which this Certification is attached as Exhibit 32.1 fully complies with the requirements of Section 13(a) or Section 15(d), of the Exchange Act; and

2. The information contained in the Annual Report fairly presents, in all material respects, the financial condition and results of operations the Company.

In Witness Whereof, the undersigned has set his hand hereto as of the 2nd day of April, 2015.

/s/ MICHAEL F. BIGHAM

Michael F. Bigham
Chief Executive Officer
CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Douglas Pagán, Chief Financial Officer of Paratek Pharmaceuticals, Inc. (the “Company”), hereby certifies that, to the best of his knowledge:

1. The Company’s Annual Report on Form 10-K for the year ended December 31, 2014 (the “Annual Report”), to which this Certification is attached as Exhibit 32.2 fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

2. The information contained in the Annual Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

In Witness Whereof, the undersigned has set his hand hereto as of the 2nd day of April, 2015.

/s/ DOUGLAS PAGAN

Douglas W. Pagán
Chief Financial Officer