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

FORM 10

GENERAL FORM FOR REGISTRATION OF SECURITIES

Pursuant to Section 12(b) or (g) of The Securities Exchange Act of 1934

Titan Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**94-3171940**
State of other jurisdiction of incorporation or organization	**I.R.S. Employer Identification No.**

Registrant's telephone number, including area code: (650) 244-4990

Securities to be registered pursuant to Section 12(b) of the Act: none

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

Common Stock, $ .001 par value
(Title of class)

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 12b2 of the Exchange Act.

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

EXPLANATORY NOTE

Titan Pharmaceuticals, Inc. has been publicly-traded since our company's initial public offering in January 1996. In December 2008, as part of our efforts to conserve cash, we announced our decision to voluntarily delist from the NYSE Euronext (formerly the American Stock Exchange) and terminate our obligation to file reports under the Securities Exchange Act of 1934 (the "Exchange Act"). In light of recent favorable developments, in particular the U.S. Food and Drug Administration's approval of Fanapt™ and our receipt of a grant from the National Institutes for Health for our Probuphine program, our board of directors made a determination to file this registration statement on Form 10 to re-register under the Exchange Act. It is our intention to resume filing all periodic reports under the Exchange Act. In addition, we will seek to have our shares, which are currently quoted on the OTC Pink Sheets system, listed on the OTC Bulletin Board. Our board is taking these actions as part of an ongoing process to evaluate all of the strategic alternatives available to us with the goal of maximizing value for our stockholders.

References herein to "we," "us," "Titan," and "our company" refer to Titan Pharmaceuticals, Inc. and its subsidiaries unless the context otherwise requires.

Probuphine®, Spheramine® and ProNeura™ are trademarks of our company. This Form 10 also includes trade names and trademarks of companies other than Titan.

SPECIAL NOTE REGARDING FORWARD-LOOKING INFORMATION

Statements in this Form 10 or in the documents incorporated by reference herein that are not descriptions of historical facts are forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. Reference is made in particular to the description of our plans and objectives for future operations, assumptions underlying such plans and objectives and other forward-looking terminology such as "may," "expects," "believes," "anticipates," "intends," "expects," "projects," or similar terms, variations of such terms or the negative of such terms. Forward-looking statements are based on management's current expectations. Actual results could differ materially from those currently anticipated due to a number of factors, including those set forth under "Risk Factors" including, in particular, risks relating to:

- the results of ongoing research and development activities;
- uncertainties relating to preclinical and clinical testing, financing and strategic agreements and relationships;
- the early stage of products under development;
- government regulation;
- patent matters; and
- competition.

We expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in our expectations or any changes in events, conditions or circumstances on which any such statement is based.

Item 1. Business

Overview

We are a biopharmaceutical company developing proprietary therapeutics primarily for the treatment of central nervous system ("CNS") disorders. We currently have two key assets as described below:

- *Iloperidone (Fanapt™)*: An atypical antipsychotic approved by the U.S. Food and Drug Administration ("FDA") for the treatment of schizophrenia. Novartis Pharma AG ("Novartis") has acquired the U.S. and Canadian rights to further develop and commercialize the approved oral formulation, and also further develop and potentially commercialize a depot formulation. Vanda Pharmaceuticals, Inc. ("Vanda") has the development and commercialization rights to the oral and

depot formulations of this product for the rest of the world. We are entitled to a royalty of 8-10% on worldwide net sales for several years based on the remaining life of certain patents, and we anticipate commencement of royalty revenues from sales in the United States during the first half of 2010.

- *Probuphine:* An implant formulation of buprenorphine in Phase 3 clinical development for the treatment of opioid addiction that is capable of maintaining a stable blood level of the drug in patients for six months following a single treatment. We announced positive safety and efficacy results of this product in a placebo controlled Phase 3 study during 2008 and we have now completed approximately half of the overall clinical development program required for registration and potential approval of Probuphine. Recently we have been awarded a $7.6 million grant from the National Institutes of Health ("NIH") that will partially fund the second Phase 3 controlled safety and efficacy study required by the FDA for product registration.

In September 2008, we were notified by Bayer Schering Pharma of the termination of the license agreement for the development and commercialization of Spheramine®, our proprietary cell therapy product in development for treating Parkinson's disease. Bayer Schering Pharma returned all rights for this product to us and, after further review and analysis of the information, we also decided to discontinue any further activities associated with this product candidate. Subsequently, we terminated our Spheramine license agreement with New York University ("NYU") and returned all rights previously granted to us by NYU. Thereafter, to further conserve capital, we also terminated the license agreements for DITPA and gallium maltolate and returned all development and commercialization rights to the respective licensors, except for certain rights from the University of Iowa to potentially use gallium maltolate for the treatment of chronic bacterial infections.

Our Products

The following table provides a summary status of our products:

Product	Potential Indication(s)	Phase of Development	Marketing Rights
Iloperidone (Fanapt™)	Schizophrenia, psychosis	Approved in U.S. for schizophrenia	Novartis – U.S. and Canada Vanda - Rest of the world
Probuphine	Opioid addiction	Phase 3	Titan

Iloperidone (Fanapt™) was approved by the FDA in May 2009 for the treatment of schizophrenia and Novartis has acquired the rights to commercialize it in the U.S. and Canada. Novartis announced that it commenced commercial launch of Fanapt in January 2010.

Probuphine is currently in Phase 3 clinical development and although it has demonstrated efficacy in one controlled Phase 3 study, additional development is necessary prior to registration and it may still not be successfully developed or commercialized. Titan has been awarded a $7.6 million grant by the NIH in partial support of the second controlled Phase 3 study, however we will require significant further capital to support this and other clinical studies, manufacturing development, testing, and regulatory clearances prior to commercialization. We may experience unanticipated problems relating to product development and cannot predict whether we will successfully develop and commercialize any products.

Iloperidone (Fanapt™)

Iloperidone (Fanapt™) is our novel, proprietary product approved in the U.S. on May 6, 2009 for the treatment of adult patients with schizophrenia. The Phase 3 clinical development was conducted initially by our sub-licensee, Novartis, and completed by Novartis' sub-licensee, Vanda. In July 2008, Vanda received a non-approval letter from the FDA requesting additional information about the product. Vanda addressed the questions asked by the FDA and provided additional clarification following which the FDA granted marketing approval as noted above. The approval was supported by two placebo-controlled Phase 3 clinical studies comparing Fanapt™ to placebo and active control in patients with schizophrenia, as well as safety data from more than 3,000 patients. Fanapt™, a mixed dopamine D2 / serotonin 5HT2A receptor antagonist belonging to the class of atypical antipsychotics, will be commercialized in the U.S. and Canada by Novartis and the development of a depot formulation will also be pursued by Novartis. Vanda has commercialization rights for the rest of the world for the oral formulation and the

depot formulations, although Novartis has the first option to negotiate an agreement to co-market both these products in the rest of the world. Based on the terms of our sub-license agreement with Novartis we are entitled to royalty revenue of 8% of annual worldwide net sales up to $200 million and 10% of annual worldwide net sales above $200 million. We do not incur any expenses associated with this product.

Probuphine

We are developing Probuphine for the treatment of opioid addiction. Probuphine is the first product to utilize our novel, proprietary long-term drug delivery technology (See "Continuous Drug Delivery Technology" below). Probuphine is designed to provide continuous, long-term therapeutic levels of the drug buprenorphine, an approved agent for the treatment of opioid addiction. Probuphine has been shown to be safe and effective in the three Phase 3 studies that have been completed to date, specifically:

- A six-month, double-blind, placebo-controlled safety and efficacy trial;
- A six-month, open-label re-treatment safety trial; and
- A pharmacokinetic safety study.

Top-line results for the first double-blind, placebo-controlled safety and efficacy study were initially released in July 2008. These data indicated that Probuphine showed a clinically and statistically significant difference over placebo by consistently meeting the primary and secondary endpoints as highlighted below:

- Cumulative distribution function of % negative urines:
  - weeks 1-16: Probuphine>placebo; p= 0.0361 (primary endpoint)
  - weeks 17-24: Probuphine>placebo; p= 0.0004
  - weeks 1-24: Probuphine>placebo; p= 0.0.0117
- Difference in mean % negative urines:
  - weeks 1-16: Probuphine>placebo; p= 0.0253
  - weeks 17-24: Probuphine>placebo; p= 0.0006
- Treatment retention over 24 weeks: Probuphine>placebo; p< 0.0001
- Patient-rated opioid withdrawal over 24 weeks: Probuphine>placebo; p= 0.0005
- Clinician-rated opioid withdrawal over24 weeks: Probuphine>placebo; p= 0.0008
- Opioid craving – 24 weeks: Probuphine>placebo; p= 0.0006
- Global severity of opioid addiction:
  - Patient rated: Probuphine>placebo; p=0.0021
  - Physician rated: Probuphine>placebo; p=0.0086

Treatment with Probuphine was well tolerated in this clinical study.

The six month re-treatment study and the pharmacokinetic safety study have also provided important data on the safety of Probuphine. Data from all of these studies have been presented at the International Society of Addiction Medicine 2008 Annual Meeting in November 2008, and the American Society of Addiction Medicine 2009 Annual Meeting in May 2009.

These studies are part of a registration directed program intended to obtain marketing approval of Probuphine for the treatment of opioid addiction in Europe and the U.S. The Phase 3 program includes additional clinical studies, including a second controlled Phase 3 study which has received a $7.6 million award from the NIH. This NIH grant will support approximately half of the expenses associated with this study and we will need additional funding to complete this clinical study and the overall development program. If adequate additional funding is available in a timely manner, the clinical study may commence patient enrollment in March/April 2010. We continue to have discussions with the FDA relating to finalizing the Probuphine clinical development program and the chemistry and manufacturing controls ("CMC") which is necessary prior to any product registration.

In June 2004, we announced final results from a pilot clinical study that evaluated the safety, pharmacokinetics and preliminary efficacy of Probuphine in the treatment of opioid-addicted patients. The results were presented at the Annual Meeting of the International Society of Addiction Medicine in Helsinki, and demonstrated that all 12 patients switched from daily sublingual buprenorphine therapy to Probuphine, had maintenance of therapeutic benefit for a period of six months following a single treatment of Probuphine. Treatment with Probuphine was well tolerated in this clinical study, with no significant adverse events.

Continuous Drug Delivery Technology

Our continuous drug delivery system consists of a small, solid rod made from a mixture of ethylene-vinyl acetate ("EVA") and a drug substance. The resulting product is a solid matrix that is placed subcutaneously, normally in the upper arm in a simple office procedure, and is removed in a similar manner at the end of the treatment period. The drug substance is released slowly, at continuous levels, through the process of diffusion. This results in a constant rate of release similar to intravenous administration. We believe that such long-term, linear release characteristics are desirable by avoiding peak and trough level dosing that poses problems for many CNS and other therapeutic agents.

Our continuous drug delivery technology was developed to address the need for a simple, practical method to achieve continuous long-term drug delivery, and potentially can provide controlled drug release on an outpatient basis over extended periods of up to 6—12 months. In addition to Probuphine, which is our first product in clinical testing to utilize our proprietary continuous drug delivery technology, we continue to seek opportunities to develop this drug delivery technology for other potential treatment applications in which conventional treatment is limited by variability in blood drug levels and poor patient compliance.

Sponsored Research and License Agreements

We are a party to several agreements with research institutions, companies, universities and other entities for the performance of research and development activities and for the acquisition of licenses relating to such activities. Expenses under these agreements totaled approximately $239,000, $378,000, and $690,000 in the years ended December 31, 2008, 2007, and 2006, respectively.

In January 1997, we acquired an exclusive worldwide license under U.S. and foreign patents and patent applications relating to the use of iloperidone for the treatment of psychiatric and psychotic disorders and analgesia from Sanofi-Aventis SA ("Sanofi-Aventis") (formerly Hoechst Marion Roussel, Inc.). The Sanofi-Aventis agreement provides for the payment of royalties on future net sales and requires us to satisfy certain other terms and conditions in order to retain our rights, all of which have been met to date.

In November 1997, we granted a worldwide sublicense, except Japan, to Novartis under which Novartis continued, at its expense, all further development of iloperidone. In April 2001, that sublicense was extended to include Japan. Novartis will make our milestone and royalty payments to Sanofi-Aventis during the life of the Novartis agreement, and will also pay Titan a royalty on future net sales of the product.

In June 2004, Vanda acquired from Novartis the worldwide rights to develop and commercialize iloperidone. Under its agreement with Novartis, Vanda proceeded with and funded the iloperidone Phase III development program. All of our rights and economic interests in iloperidone, including royalties on sales of iloperidone, remained essentially unchanged under the agreement.

In October 2009, Vanda and Novartis amended and restated their sub-license agreement whereby Novartis acquired the U.S. and Canadian rights to commercialize Fanapt, the oral formulation of iIloperidone approved in the U.S. Novartis also acquired the U.S. and Canadian development and commercialization rights to the depot formulation previously under development by Vanda and agreed to fund and continue the development of this formulation. Further, Novartis has also retained the right of first negotiation to co-market Fanapt and the depot formulation in the rest of the world. Our royalty interest in iloperidone remains unchanged, and Titan is entitled to royalty revenue of 8% of annual worldwide net sales up to $200 million and 10% of annual worldwide net sales above $200 million for several years based on the remaining life of certain patents. We anticipate commencement of royalty revenues from U.S. sales during the first half of 2010.

In October 1995, we acquired from the Massachusetts Institute of Technology ("MIT") an exclusive worldwide license to certain U.S. and foreign patents relating to our continuous drug delivery system. The exclusive nature of the MIT license is subject to certain conditions regarding timely performance of product development activities. We must also satisfy certain other usual terms and conditions set forth in the MIT license in order to retain our license rights, including payments of royalties based on sales of products and processes incorporating the licensed technology, as well as a percentage of income derived from sublicenses of the licensed technology.

In August 2000, through the acquisition of GeoMed, Inc., we acquired an exclusive worldwide license to make, use and sell products developed under the patent rights to the compositions and application of gallium complexes. We subsequently acquired additional rights to gallium; however, between December 2008 and March 2009, as part of our ongoing efforts to conserve cash, we terminated all of the license agreements with the exception of an agreement we entered into in July 2005 with the University of Iowa Research Foundation. Under this agreement, we received an exclusive worldwide license to patent rights held by the University of Iowa Research Foundation covering the methods of treating biofilm formation, pseudomoras aeruginosa growth, human deficiency virus, and intracellular pathogens and pathogens causing chronic pulmonary infection using gallium maltolate. Under this agreement, we are required to pay a license issuance fee and certain minimum annual royalty payments. In addition, we are required to pay royalties based on net sales of products and processes incorporating the licensed technology.

Patents and Proprietary Rights

We hold a license from Sanofi-Aventis under certain issued U.S. patents and certain foreign patents relating to iloperidone and its methods of use. Our license is exclusive for use in the treatment of psychiatric disorders, psychotic disorders and analgesia. The term of the U.S. patent that covers certain aspects of our iloperidone product expires in 2011, however it is anticipated that based on provisions of the Hatch-Waxman Act, the market exclusivity period for Fanapt will be extended by five years to 2016. The method of use patent covering the depot formulation will expire in 2020 assuming no further extensions. Prosecution of various divisional and continuation applications and their foreign counterparts continues satisfactorily, although it is uncertain whether additional patents will be granted.

We are the exclusive licensee under the MIT license to two U.S. patents relating to a long-term drug delivery system, with patent terms expiring in 2009, and certain European patents with patent terms expiring in 2008 and 2010. These dates do not include possible term extensions. Four additional patent applications have been filed which incorporate the use of specific compounds with the continuous delivery technology, including two applications related to Probuphine for the potential treatment of opioid addiction and chronic pain. We have received a Notice of Allowance from the United States Patent and Trademark Office ("PTO") for certain claims regarding the use of Probuphine for the treatment of opioid addiction. Further prosecution of these applications are currently proceeding at the U.S. PTO and corresponding agencies in other countries. The U.S. patent related to the use of Probuphine for the treatment of opioid addiction will provide market exclusivity up to 2023.

We are the licensee of certain issued U.S. and foreign patents and patent applications relating to methods of use to inhibit the growth of P. aeruginosa, and to treat infections by pathogens causing chronic pulmonary infections. The two issued U.S. patents have terms expiring in 2016. The date does not include a possible term extension. We have additionally licensed applications covering the use of gallium complexes in treating and preventing bacterial biofilm-based infections. In 2009 patents were issued in South Africa and in Mexico relating to this application

Competition

The pharmaceutical and biotechnology industries are characterized by rapidly evolving technology and intense competition. Many companies of all sizes, including major pharmaceutical companies and specialized biotechnology companies, are engaged in the development and commercialization of therapeutic agents designed for the treatment of the same diseases and disorders that we target. Many of our competitors have substantially greater

financial and other resources, larger research and development staff and more experience in the regulatory approval process. Moreover, potential competitors have or may have patents or other rights that conflict with patents covering our technologies. For risks we face with respect to competition, see "Risk Factors—We face intense competition."

With respect to Probuphine, Reckitt & Benckiser, Inc. received FDA approval in 2002 for a sublingual buprenorphine product for the treatment of opioid addiction. This product, to be administered daily, will compete with our six-month implantable product for opioid addiction. The FDA previously approved Orphan Drug designation, expiring in 2009, for Reckitt Benckiser's sublingual buprenorphine for the treatment of opioid addiction. Other forms of buprenorphine are also in development by other companies, including intramuscular injections and intranasally delivered buprenorphine, which also might compete with our product.

Several products categorized as atypical antipsychotics that will compete with Fanapt are already on the market. These products include Risperdal sold by Janssen Pharmaceuticals, Zyprexa sold by Eli Lilly, Clozaril sold by Novartis, Seroquel sold by AstraZeneca, Geodon sold by Pfizer, and Abilify sold by Bristol-Myers Squibb. Competition among these companies is already intense and iloperidone will face significant competition. The success of Fanapt will depend on how it can be differentiated from products already on the market on the basis of efficacy, side-effect profile, cost, availability of formulations and dose requirements, among other things.

Manufacturing

We utilize contract manufacturing organizations to manufacture our products for pre-clinical studies and clinical trials. While we have not introduced any products on the commercial market to date, at such time as we are ready to do so we will need to allocate additional resources to the manufacture of these products. We do not have the facilities to manufacture these products in-house nor do we intend to establish our own manufacturing operation at this time. We currently plan to pursue collaborative arrangements regarding the manufacture of any products that we may successfully develop.

Government Regulation

In order to obtain FDA approval of a new drug, a company generally must submit proof of purity, potency, safety and efficacy, among other regulatory standards. In most cases, such proof entails extensive clinical and pre-clinical laboratory tests.

The procedure for obtaining FDA approval to market a new drug involves several steps. Initially, the manufacturer must conduct pre-clinical animal testing to demonstrate that the product does not pose an unreasonable risk to human subjects in clinical studies. Upon completion of such animal testing, an Investigational New Drug application, or IND, must be filed with the FDA before clinical studies may begin. An IND application consists of, among other things, information about the proposed clinical trials. Among the conditions for clinical studies and IND approval is the requirement that the prospective manufacturer's quality control and manufacturing procedures conform to current Good Manufacturing Practices ("cGMP"), which must be followed at all times. Once the IND is approved (or if the FDA does not respond within 30 days), the clinical trials may begin.

Human clinical trials on drugs are typically conducted in three sequential phases, although the phases may overlap. Phase I trials typically consist of testing the product in a small number of healthy volunteers or patients, primarily for safety in one or more doses. During Phase II, in addition to safety, dose selection and efficacy of the product is evaluated in up to several hundred patients and sometimes more. Phase III trials typically involve additional testing for safety and confirmation of efficacy in an expanded patient population at multiple test sites. The FDA may order the temporary or permanent discontinuation of a clinical trial at any time.

The results of the pre-clinical and clinical testing on new drugs, if successful, are submitted to the FDA in the form of a New Drug Application ("NDA"). The NDA approval process requires substantial time and effort and there can be no assurance that any approval will be granted on a timely basis, if at all. The FDA may refuse to approve an NDA if applicable regulatory requirements are not satisfied. Product approvals, if granted, may be withdrawn if compliance with regulatory standards is not maintained or problems occur following initial marketing.

The FDA may also require post-marketing testing and surveillance of approved products, or place other conditions on their approvals. These requirements could cause it to be more difficult or expensive to sell the products, and could therefore restrict the commercial applications of such products. Product approvals may be withdrawn if compliance with regulatory standards is not maintained or if problems occur following initial marketing. With respect to patented products or technologies, delays imposed by the governmental approval process may materially reduce the period during which we will have the exclusive right to exploit such technologies.

In May 2009, in recognition of the significant number (almost weekly) of telephonic and in-person meetings attended by the members of our board of directors to help manage the company during the period from January to May 2009, each member of the board of directors was awarded a stock option grant to purchase 100,000 shares of common stock with immediate vesting.

We believe we are in compliance with all material applicable regulatory requirements. However, see "Risk Factors—We must comply with extensive government regulations" for additional risks we face regarding regulatory requirements and compliance.

Foreign Regulatory Issues

Sales of pharmaceutical products outside the United States are subject to foreign regulatory requirements that vary widely from country to country. Whether or not FDA approval has been obtained, approval of a product by a comparable regulatory authority of a foreign country must generally be obtained prior to the commencement of marketing in that country. Although the time required to obtain such approval may be longer or shorter than that required for FDA approval, the requirements for FDA approval are among the most detailed in the world and FDA approval generally takes longer than foreign regulatory approvals.

Employees

At December 31, 2009, we had four employees and several consultants. See "Risk Factors—We may not be able to retain our key management and scientific personnel."

Item 1A. Risk Factors

The timing and amount of royalty revenues from iloperidone (Fanapt™) will be wholly dependent on the efforts of third parties.

We do not have any role in the marketing, manufacture or commercialization of iloperidone (Fanapt™). The timing and amount of royalty revenues we receive from the sale of this product will be wholly dependent upon the ability of Novartis to successfully launch and commercialize this product in the United States and Canada and on the ability of Vanda or others to sell this product in other countries. Similarly, our ability to realize any royalty revenue relating to the depot formulation of the product will depend on the ability of Novartis to successfully complete the development and regulatory approval process and implement the marketing program necessary to commercialize this product. While Novartis has announced that it launched commercial sales of Fanapt in January 2010, which would result in royalty payments to us during the following quarter, Novartis may experience unanticipated problems that delay, perhaps materially, product sales and our receipt of revenues.

Our available capital is sufficient to fund our operations only through September 2010 and we do not have the funds needed to continue the Probuphine program.

At September 30, 2009, we had cash and cash equivalents of $0.7 million, which we believe is sufficient, together with the proceeds of a private placement and debt financing completed in December 2009 and the NIH grant, to sustain our planned operations through September 2010, at which time we expect to be generating revenues from royalties on the sale of Fanapt. We do not currently have sufficient capital to fully fund the Probuphine program and we cannot be certain that the requisite funds will be available, from royalty revenues or otherwise, to continue that program.

Probuphine is in the development stage and may not be successfully developed or commercialized.

Probuphine, which is in Phase 3 clinical development, will require significant further capital expenditures, development, testing, and regulatory clearances prior to commercialization. Even if we are able to obtain the requisite funding to continue this program, the results of preclinical and clinical studies to date are not necessarily indicative of whether a product will demonstrate safety and efficacy in large patient populations to the satisfaction of the regulatory authorities in the U.S. and elsewhere. Of the large number of drugs in development, only a small percentage successfully complete the FDA regulatory approval process and are commercialized.

To date, we have experienced setbacks in some of our other product development efforts. For example, the results of a study evaluating the EKG profile of patients taking iloperidone led to a significant delay in the development of that product, a vaccine product formerly under development failed to meet the study's primary endpoint, and a study of one of our products in a combination treatment was discontinued as a result of an interim safety analysis. We may continue to experience unanticipated problems relating to product development, testing, regulatory compliance, manufacturing, marketing and competition, and our costs and expenses could exceed current estimates. We cannot predict whether we will successfully develop and commercialize Probuphine or any other product.

We must comply with extensive government regulations.

The research, development, manufacture and marketing of pharmaceutical products are subject to an extensive regulatory approval process by the FDA and other regulatory agencies in the U.S. and other countries. The process of obtaining required regulatory approvals for drugs, including conducting preclinical and clinical testing to determine safety and efficacy, is lengthy, expensive and uncertain. Even after such time and expenditures, we may not obtain necessary regulatory approvals for clinical testing or for the manufacturing or marketing of any products. We have limited experience in obtaining FDA approval. Regulatory approval may entail limitations on the indicated usage of a drug, which may reduce the drug's market potential. Even if regulatory clearance is obtained, post-market evaluation of the products, if required, could result in restrictions on a product's marketing or withdrawal of the product from the market, as well as possible civil and criminal sanctions. Our business will be seriously harmed if our regulatory submissions are delayed or we cancel plans to make submissions for proposed products for any of the following reasons:

- unanticipated preclinical testing or clinical trial reports;
- failure to reach agreement with the FDA regarding study protocols or endpoints;
- changes in regulations or the adoption of new regulations;
- unanticipated enforcement of existing regulations;
- unexpected technological developments; and
- developments by our competitors.

We face risks associated with third parties conducting preclinical studies and clinical trials of our products as well as our dependence on third parties to manufacture any products that we may successfully develop.

We depend on third-party laboratories and medical institutions to conduct preclinical studies and clinical trials for our products and other third-party organizations to perform data collection and analysis, all of which must maintain both good laboratory and good clinical practices. We will also depend upon third party manufacturers for the production of any products we may successfully develop to comply with current Good Manufacturing Practices of the FDA, which are similarly outside our direct control. If third party laboratories and medical institutions conducting studies of our products fail to maintain both good laboratory and clinical practices, the studies could be delayed or have to be repeated. Similarly, if the manufacturers of any products we develop in the future fail to comply with current Good Manufacturing Practices of the FDA, we may be forced to cease manufacturing such product until we have found another third party to manufacture the product.

We face risks associated with clinical trial liability claims in the event that the use or misuse of our product candidates results in personal injury or death.

We face an inherent risk of clinical trial liability claims in the event that the use or misuse of our product candidates results in personal injury or death. Our clinical liability insurance coverage may not be sufficient to cover claims that may be made against us. Any claims against us, regardless of their merit, could severely harm our financial condition, strain our management and other resources or destroy the prospects for commercialization of the product which is the subject of any such claim.

We may be unable to protect our patents and proprietary rights.

Our future success will depend to a significant extent on our ability to:

- obtain and keep patent protection for our products and technologies on an international basis;
- enforce our patents to prevent others from using our inventions;
- maintain and prevent others from using our trade secrets; and
- operate and commercialize products without infringing on the patents or proprietary rights of others.

We cannot assure you that our patent rights will afford any competitive advantages, and these rights may be challenged or circumvented by third parties. Further, patents may not be issued on any of our pending patent applications in the U.S. or abroad. Because of the extensive time required for development, testing and regulatory review of a potential product, it is possible that before a potential product can be commercialized, any related patent may expire or remain in existence for only a short period following commercialization, reducing or eliminating any advantage of the patent. If we sue others for infringing our patents, a court may determine that such patents are invalid or unenforceable. Even if the validity of our patent rights is upheld by a court, a court may not prevent the alleged infringement of our patent rights on the grounds that such activity is not covered by our patent claims.

In addition, third parties may sue us for infringing their patents. In the event of a successful claim of infringement against us, we may be required to:

- pay substantial damages;
- stop using our technologies and methods;
- stop certain research and development efforts;
- develop non-infringing products or methods; and
- obtain one or more licenses from third parties.

If required, we cannot assure you that we will be able to obtain such licenses on acceptable terms, or at all. If we are sued for infringement, we could encounter substantial delays in development, manufacture and commercialization of our product candidates. Any litigation, whether to enforce our patent rights or to defend against allegations that we infringe third party rights, will be costly, time consuming, and may distract management from other important tasks.

We also rely in our business on trade secrets, know-how and other proprietary information. We seek to protect this information, in part, through the use of confidentiality agreements with employees, consultants, advisors and others. Nonetheless, we cannot assure you that those agreements will provide adequate protection for our trade secrets, know-how or other proprietary information and prevent their unauthorized use or disclosure. To the extent that consultants, key employees or other third parties apply technological information independently developed by them or by others to our proposed products, disputes may arise as to the proprietary rights to such information, which may not be resolved in our favor.

We face intense competition.

Competition in the pharmaceutical and biotechnology industries is intense. We face, and will continue to face, competition from numerous companies that currently market, or are developing, products for the treatment of the diseases and disorders we have targeted. Many of these entities have significantly greater research and

development capabilities, experience in obtaining regulatory approvals and manufacturing, marketing, financial and managerial resources than we have. We also compete with universities and other research institutions in the development of products, technologies and processes, as well as the recruitment of highly qualified personnel. Our competitors may succeed in developing technologies or products that are more effective than the ones we have under development or that render our proposed products or technologies noncompetitive or obsolete. In addition, our competitors may achieve product commercialization or patent protection earlier than we will.

Healthcare reform and restrictions on reimbursements may limit our financial returns.

Our ability or the ability of our collaborators to commercialize drug products, if any, may depend in part on the extent to which government health administration authorities, private health insurers and other organizations will reimburse consumers for the cost of these products. These third parties are increasingly challenging both the need for and the price of new drug products. Significant uncertainty exists as to the reimbursement status of newly approved therapeutics. Adequate third party reimbursement may not be available for our own or our collaborator's drug products to enable us or them to maintain price levels sufficient to realize an appropriate return on their and our investments in research and product development.

We may not be able to retain our key management and scientific personnel.

As a company with a limited number of personnel, we are highly dependent on the services of our executive management and scientific staff. The loss of one or more of such individuals could substantially impair ongoing research and development programs and could hinder our ability to obtain corporate partners. Our success depends in large part upon our ability to attract and retain highly qualified personnel. We compete in our hiring efforts with other pharmaceutical and biotechnology companies, as well as universities and nonprofit research organizations, and we may not be successful in our efforts to attract and retain personnel.

Our shares are currently quoted in the OTC Pink Sheets and we cannot predict whether our shares will ever trade on the OTC Bulletin Board or any national securities exchange.

Our shares are currently quoted in the OTC Pink Sheets. Many institutional investors have investment policies which prohibit them from trading in stocks on the OTC Pink Sheets. As a result, shares quoted on the OTC Pink Sheets generally have limited trading volume and exhibit a wide spread between the bid/ask quotations than stock traded on national exchanges. We anticipate having a registered broker-dealer file a Form 15c211 with the Financial Industry Regulatory Authority that would permit our common stock to be quoted for trading on the OTC Bulletin Board, but we cannot be sure that such an effort would be successful. As a result, an investment in our common stock may be illiquid and investors may not be able to liquidate their investment readily or at all when they desire to sell.

Our stock price has been and will likely continue to be volatile.

Our stock price has experienced substantial fluctuations and could continue to fluctuate significantly due to a number of factors, including:

- variations in our anticipated or actual operating results;
- sales of substantial amounts of our common stock;
- announcements about us or about our competitors, including introductions of new products;
- litigation and other developments relating to our patents or other proprietary rights or those of our competitors;
- conditions in the pharmaceutical or biotechnology industries;
- governmental regulation and legislation; and
- change in securities analysts' estimates of our performance, or our failure to meet analysts' expectations.

Our common stock is deemed to be a "penny stock," which may make it more difficult for investors to sell their shares due to suitability requirements.

Our common stock is subject to Rule 15g-1 through 15g-9 under the Exchange Act, which imposes certain sales practice requirements on broker-dealers which sell our common stock to persons other than established customers and "accredited investors" (generally, individuals with a net worth in excess of $1,000,000 or annual incomes exceeding $200,000 (or $300,000 together with their spouses)). For transactions covered by this rule, a broker-dealer must make a special suitability determination for the purchaser and have received the purchaser's written consent to the transaction prior to the sale. This rule adversely affects the ability of broker-dealers to sell our common stock and the ability of our stockholders to sell their shares of common stock.

Additionally, our common stock is subject to the SEC regulations for "penny stock." Penny stock includes any equity security that is not listed on a national exchange and has a market price of less than $5.00 per share, subject to certain exceptions. The regulations require that prior to any non-exempt buy/sell transaction in a penny stock, a disclosure schedule set forth by the SEC relating to the penny stock market must be delivered to the purchaser of such penny stock. This disclosure must include the amount of commissions payable to both the broker-dealer and the registered representative and current price quotations for the common stock. The regulations also require that monthly statements be sent to holders of penny stock that disclose recent price information for the penny stock and information of the limited market for penny stocks. These requirements adversely affect the market liquidity of our common stock.

As a result of the de-registration of our securities, we are currently ineligible to use Form S-3 to register securities, which may adversely affect our cost of future capital.

We are currently ineligible to use Form S-3 to register securities for sale by us or for resale by other security holders and will not be eligible until we have timely filed all periodic reports under the Exchange Act for at least 12 calendar months. In the meantime, we would need to use Form S-1 to register securities with the SEC for capital raising transactions or issue such securities in private placements, in either case, increasing the costs of raising capital during this period.

Our net operating losses and research and development tax credits may not be available to reduce future federal and state income tax payments.

At December 31, 2008, we had federal net operating loss and tax credit carryforwards of $231.9 million and $7.3 million, respectively, and state net operating loss and tax credit carryforwards of $110.2 million and $6.5 million, respectively. Current federal and state tax laws include substantial restrictions on the utilization of net operating loss and tax credits in the event of an ownership change. We have not performed a change of ownership analysis since 1999 and, accordingly, some or all of our net operating loss and tax credit carryforwards may not be available to offset future taxable income, if any. Even if the carryforwards are available, they may be subject to annual limitations, lack of future taxable income, or future ownership changes that could result in the expiration of the carryforwards before they are utilized.

Item 2. Financial Information

Selected Financial Data

The selected financial data presented below summarizes certain financial data which has been derived from and should be read in conjunction with our consolidated financial statements and notes thereto included in the section beginning on page F-1 and with "Management's Discussion and Analysis of Financial Condition and Results of Operations" below.

	Nine Months ended September 30, (unaudited)		Years Ended December 31,				
	2009	2008	2008	2007	2006	2005	2004
	(in thousands, except per share data)						
Statement of Operations Data:							
Total revenue	$ 53	$ 73	$ 73	$ 24	$ 32	$ 89	$ 31
Operating expenses:							
Research and development	1,707	12,810	16,235	12,244	11,620	17,770	20,415
Acquired/in-process research and development(1)	—	—	—	—	—	—	759
General and administrative	2,443	7,086	9,756	6,213	4,859	5,370	5,237
Other income (expense), net	(7)	516	484	786	710	589	376
Net loss	$ (4,104)	$(19,307)	$(25,434)	$(17,647)	$(15,737)	$(22,462)	$(26,004)
Basic and diluted net loss per share	$ (0.07)	$ (0.33)	$ (0.44)	$ (0.41)	$ (0.42)	$ (0.69)	$ (0.83)
Shares used in computing:							
Basic and diluted net loss per share	58,291	58,284	58,285	42,998	37,902	32,635	31,381

(1) Acquired research and development reflects the acquisition of the minority shares of ProNeura, Inc. in 2004 and the acquisition of DTI in 2003.

	As of September 30, 2009 (unaudited)	As of December 31,				
		2008	2007	2006	2005	2004
		(in thousands)				
Balance Sheet Data:						
Cash, cash equivalents, and marketable securities	$ 725	$4,672	$30,016	$13,715	$17,369	$36,322
Working capital	182	2,759	26,200	10,825	15,449	33,760
Total assets	1,393	5,668	30,844	15,040	19,737	38,626
Total stockholders' equity	(916)	1,793	25,347	10,405	15,360	33,713

Management's Discussion and Analysis of Financial Condition and Results of Operations. Forward-Looking Statements

Statements in the following discussion and throughout this report that are not historical in nature are "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. You can identify forward-looking statements by the use of words such as "expect," "anticipate," "estimate," "may," "will," "should," "intend," "believe," and similar expressions. Although we believe the expectations reflected in these forward-looking statements are reasonable, such statements are inherently subject to risk and we can give no assurances that our expectations will prove to be correct. Actual results could differ from those described in this report because of numerous factors, many of which are beyond our control. These factors include, without limitation, those described under Item 1A "Risk Factors." We undertake no obligation to update these forward-looking statements to reflect events or circumstances after the date of this report or to reflect actual outcomes. Please see "Special Note Regarding Forward Looking Statements" at the beginning of this Form 10.

The following discussion of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and the related notes thereto and other financial information appearing elsewhere in this Form 10.

Overview

We are a biopharmaceutical company engaged in the development of proprietary therapeutics primarily for the treatment of central nervous system ("CNS") disorders. We commenced operations in 1992 and completed an initial public offering in January 1996. At the end of 2007, we had three late stage product development programs: (i) iloperidone-NDA filed with the FDA by Vanda seeking U.S. marketing approval for treatment of schizophrenia, (ii) Probuphine-controlled Phase 3 study being conducted by Titan to evaluate safety and efficacy for the treatment of opioid addiction, and (iii) Spheramine-controlled Phase 2b study being conducted by Bayer Schering Pharma for the treatment of advanced Parkinsons disease. In July 2008, we learned that Vanda, the licensee of iloperidone, had received a non-approval letter from the FDA. In July 2008, we announced positive results in the Phase 3 study of Probuphine for the treatment of opioid addiction. In September 2008, we were advised by the licensee of Spheramine that it was ending its development program and terminating its license agreement with us. After further review and analysis of the information on which such licensee's decision was based, we also decided to discontinue any further activities associated with this product candidate. As a result of these adverse events with respect to two of our three principal product candidates, we were forced to undertake substantial cost cutting measures that included an almost complete reduction in our workforce and a phased suspension of all of our development activities, and focus our efforts on maximizing value for our stockholders either through the sale of assets or the establishment of a corporate partnering arrangement for Probuphine.

In May 2009, the FDA, after reviewing additional material provided by Vanda, reconsidered its decision and granted approval for iloperidone (Fanapt™). Later that month, we announced that we had re-engaged three of our prior executives, including our two current executive officers. In October 2009, Vanda and Novartis announced their agreement regarding the marketing and commercialization of this product and later that month we received a $7.6 million grant from the NIH for the clinical development of Probuphine. Our board of directors is currently in the process of evaluating all of the strategic alternatives available to us to maximize shareholder value, including possible monetization of the Fanapt royalty stream, continuation of the Probuphine program, a merger or other business combination, among others.

Liquidity and Capital Resources

We have funded our operations since inception primarily through sales of our securities, as well as with proceeds from warrant and option exercises, corporate licensing and collaborative agreements, and government-sponsored research grants. At September 30, 2009, we had approximately $725,000 of cash and cash equivalents compared to approximately $4.7 million at December 31, 2008. In December 2009, we completed the sale of 300,000 shares of common stock for aggregate gross proceeds of $510,000. Also in December 2009, we entered into a financing agreement with Oxford Capital Financing ("Oxford") pursuant to which we received a three-year term loan in the principal amount of $3,000,000 that bears interest at the rate of 13% per annum. We paid Oxford an initial facility fee of $60,000 and are obligated to make a final payment fee of $180,000. The loan is secured by our assets and has a provision for pre-payment. Oxford received five-year warrants to purchase 42,254 shares of our common stock at an exercise price of $2.13 per share.

Our operating activities used approximately $4.4 million during the nine months ended September 30, 2009. This consisted primarily of the net loss for the period of approximately $4.1 million and $1.4 million related to net changes in operating assets and liabilities. This was offset in part by non-cash charges of approximately $0.1 million related to depreciation, and approximately $0.9 million related to share-based compensation expenses. Uses of cash in operating activities were primarily to fund product development programs and administrative expenses. We have entered into various agreements with research institutions, universities, and other entities for the performance of research and development activities and for the acquisition of licenses related to those activities. Certain of the licenses require us to pay royalties on future product sales, if any. In addition, in order to maintain license and other rights while products are under development, we must comply with customary licensee obligations, including the payment of patent-related costs, annual minimum license fees, meeting project-funding milestones and diligent efforts in product development. The aggregate commitments we have under these agreements, including minimum license payments, for the next twelve months is approximately $0.1 million.

Net cash used by investing activities of approximately $7,000 during the nine months ended September 30, 2009 consisted of purchases of furniture and equipment of approximately $9,000. This was offset in part by disposals of furniture and equipment of approximately $2,000.

Net cash provided by financing activities during the nine months ended September 30, 2009 was approximately $475,000, which consisted primarily of proceeds from the exercise of options to purchase our common stock.

We expect to continue to incur substantial additional operating losses from costs related to the continuation of product and technology development, clinical trials, and administrative activities. We believe that our working capital at September 30, 2009, together with the funds obtained through the sale of equity and receipt of a loan in December 2009 and proceeds from the NIH grant, is sufficient to sustain our planned operations through September 2010, at which time we expect to be generating royalty revenues from sales of Fanapt.

Results of Operations

Nine Months Ended September 30, 2009 Compared to Nine Months Ended September 30, 2008

Our net loss for the nine month period ended September 30, 2009, was approximately $4.1 million, or $0.07 per share, compared to approximately $19.3 million, or $0.33 per share, for the comparable period in 2008.

We had revenues from licensing agreements of approximately $53,000 and $73,000 during the nine month periods ended September 30, 2009 and 2008, respectively.

Research and development ("R&D") expenses for the nine month period ended September 30, 2009 were approximately $1.7 million, compared to approximately $12.8 million for the comparable period in 2008, a decrease of approximately $11.1 million, or 87%. The decrease in research and development costs during the nine month period ended September 30, 2009 was primarily associated with the phased suspension of activities associated with clinical trials related to our Probuphine product, resulting in reductions in employee-related costs of $2.5 million, internal research and development expenses of $1.1 million and external research and development expenses of $7.5 million. External research and development expenses include direct expenses such as clinical research organization charges, investigator and review board fees, patient expense reimbursements and contract manufacturing expenses. During the nine months ended September 30, 2009, our external research and development expenses relating to our Probuphine product development program were approximately $0.6 million compared to $7.9 million for the comparable period in 2008. Other research and development expenses include internal operating costs such as clinical research and development personnel-related expenses, clinical trials-related travel expenses, and allocation of facility and corporate costs. As a result of the risks and uncertainties inherently associated with pharmaceutical research and development activities described elsewhere in this report, we are unable to estimate the specific timing and future costs of our clinical development programs or the timing of material cash inflows, if any, from our products or product candidates.

General and administrative expenses for the nine month period ended September 30, 2009 were approximately $2.4 million, compared to approximately $7.1 million for the comparable period in 2008, a decrease of approximately $4.7 million, or 66%. The decrease in general and administrative expenses was primarily related to reductions in employee related costs of approximately $2.2 million, non-cash stock compensation costs of approximately $0.6 million, marketing and product positioning costs of approximately $0.9 million, legal fees of approximately $0.2 million, travel related expenses of approximately $0.2 million, consulting and professional fees of approximately $0.2 million , and other general and administrative costs of approximately $0.3 million.

Net other expense for the nine month period ended September 30, 2009 was approximately $7,000 compared to net other income of approximately $516,000 during the comparable period in 2008. Net other expense during the nine month period ended September 30, 2009, consisted primarily of tax-related expenses of approximately $14,000 offset by interest income of approximately $2,000 and gains of approximately $6,000 resulting from the sale of certain assets. Net other income during the nine month period ended September 30, 2008, consisted primarily of interest income on investments of approximately $0.4 million and gains of approximately $0.1 million resulting from the sale of certain investments.

Year Ended December 31, 2008 Compared to Year Ended December 31, 2007

Revenues in 2008 were $73,000 compared to $24,000 for 2007, an increase of $49,000. Our revenues during 2008 and 2007 were derived from fees received under various licensing agreements.

Research and development expenses for 2008 were $16.2 million compared to $12.2 million for 2007, an increase of $4.0 million. The increase in R&D was primarily associated with the initiation of certain clinical study-related activities in 2007. Of our 2008 R&D expenses, approximately 57%, or $9.3 million, were attributable to external R&D expenses related to our Probuphine project. External R&D expenses include direct expenses such as clinical research organization charges, investigator and review board fees, patient expense reimbursements, pre-clinical activities and contract manufacturing expenses. Remaining R&D expenses were attributable to internal operating costs, which include clinical R&D personnel salaries and employee related expenses, clinical trials related travel expenses, and allocation of facility and corporate costs.

General and administrative expenses for 2008 were $9.8 million compared to $6.2 million for 2007, an increase of $3.6 million. The increase in general and administrative expenses was primarily related to increases in employee related costs of approximately $1.9 million, non-cash stock compensation costs of approximately $0.5 million, marketing and product positioning costs of approximately $0.6 million, legal fees of approximately $0.2 million, travel related expenses of approximately $0.1 million, and other general and administrative costs of approximately $0.3 million. This was offset by a decrease in consulting and professional fees of approximately $0.1 million.

Other income, net, for 2008 was $484,000 compared to $786,000 for 2007, a decrease of $302,000. The decrease in other income, net, consisted primarily of a decrease in interest income on investments of approximately $0.2 million and a decrease in gains on the sale of investments of approximately $0.2 million. This was offset by a decrease in other expense of approximately $0.1 million.

As a result of the foregoing, we had a net loss of $25.4 million in 2008 compared to a net loss of $17.7 million in 2007.

Year Ended December 31, 2007 Compared to Year Ended December 31, 2006

Revenues in 2007 were $24,000 compared to $32,000 for 2006, a decrease of $8,000. Our revenues during 2007 and 2006 were derived from fees received under various licensing agreements.

Research and development expenses for 2007 were $12.2 million compared to $11.6 million for 2006, an increase of $0.6 million. The increase in R&D was primarily associated with the initiation of certain clinical study-related activities in 2007. Of our 2007 R&D expenses, approximately 56%, or $6.8 million, were attributable to external R&D expenses. External R&D expenses include direct expenses such as clinical research organization charges, investigator and review board fees, patient expense reimbursements, pre-clinical activities and contract manufacturing expenses. In 2007, approximately $5.1 million of external R&D expenses were related to Probuphine, $0.8 million to DITPA, $0.7 million to gallium maltolate, and the remainder to other projects.

Remaining R&D expenses were attributable to internal operating costs, which include clinical R&D personnel salaries and employment-related expenses, clinical trials-related travel expenses, and allocation of facility and corporate costs. In October 2006, we determined that we would focus our resources on the Phase III development of Probuphine, and discontinued further enrollment in our Phase II study of DITPA in congestive heart failure ("CHF").

General and administrative expenses for 2007 were $6.2 million compared to $4.9 million for 2006, an increase of $1.3 million. The increase in general and administrative expenses was primarily related to increases in non-cash stock compensation costs of approximately $0.5 million, marketing and product positioning costs of approximately $0.3 million, legal fees of approximately $0.2 million, consulting fees of approximately $0.1 million, and other general and administrative costs of approximately $0.2 million.

Other income, net, for 2007 was $786,000 compared to $710,000 for 2006, an increase of $76,000.

As a result of the foregoing, we had a net loss of $17.7 million in 2007 compared to a net loss of $15.8 million in 2006.

Off-Balance Sheet Arrangements

We have never entered into any off-balance sheet financing arrangements and we have never established any special purpose entities. We have not guaranteed any debt or commitments of other entities or entered into any options on non-financial assets.

Quantitative and Qualitative Disclosures About Market Risk

We held no marketable securities at December 31, 2008 or September 30, 2009.

Item 3. Properties

We have a five-year operating lease, expiring in June 2010, for approximately 14,017 square feet of office space in South San Francisco, California. We currently sublease approximately 6,871 square feet of our office space in South San Francisco, California to Anesiva, Inc. under an operating lease expiring in June 2010. We also have an operating lease, expiring in March 2011, for approximately 3,135 square feet of office space in Fort Lee, New Jersey.

Item 4. Security Ownership of Certain Beneficial Owners and Management

The following table sets forth, as of December 31, 2009, certain information concerning the beneficial ownership of our common stock by (i) each stockholder known by us to own beneficially five percent or more of our outstanding common stock; (ii) each director; (iii) each named executive officer; and (iv) all of our executive officers and directors as a group, and their percentage ownership and voting power.

Name and Address of Beneficial Owner(1)	Shares Beneficially Owned(2)	Percent of Shares Beneficially Owned
Marc Rubin, M.D.	1,221,874 (3)	2.0%
Victor J. Bauer, Ph.D.	348,644 (4)	*
Sunil Bhonsle	1,188,747 (5)	2.0%
Eurelio M. Cavalier	418,750 (6)	*
Hubert E. Huckel, M.D.	655,019 (7)	1.1%
Joachim Friedrich Kapp, M.D., Ph.D.	1,051,251 (8)	1.8%
M. David MacFarlane, Ph.D.	255,000 (9)	*
Ley S. Smith	246,250 (10)	*
Arnhold and S. Bleichroeder Advisors, LLC	8,354,644 (11)	13.7%
All executive officers and directors as a group (8) persons	5,385,535	8.7%

* Less than one percent.

(1) Unless otherwise indicated, the address of such individual is c/o Titan Pharmaceuticals, Inc., 400 Oyster Point Boulevard, Suite 505, South San Francisco, California 94080.

(2) In computing the number of shares beneficially owned by a person and the percentage ownership of a person, shares of our common stock subject to options held by that person that are currently exercisable or exercisable within 60 days of December 31, 2009 are deemed outstanding. Such shares, however, are not deemed outstanding for purposes of computing the percentage ownership of each other person. Except as indicated in the footnotes to this table and pursuant to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of common stock.

(3) Includes 846,874 shares issuable upon exercise of outstanding options.

(4) Includes 337,500 shares issuable upon exercise of outstanding options.

(5) Includes 897,490 shares issuable upon exercise of outstanding options.

(6) Includes 236,250 shares issuable upon exercise of outstanding options.

(7) Includes (i) 263,750 shares issuable upon exercise of outstanding options, (ii) 2080 shares held by Dr. Huckel's son, and (iii) 789 shares held by his wife.

(8) Includes 48,751 shares issuable upon exercise of outstanding options.

(9) Includes 132,500 shares issuable upon exercise of outstanding options.

(10) Includes 233,750 shares issuable upon exercise of outstanding options.

(11) Derived from a Schedule 13G filed by Arnhold and S. Bleichroeder Advisors, LLC on February 12, 2009. Includes warrants to purchase common stock. The holder's address is 1345 Avenue of the Americas, New York, New York 10105.

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Item 5. Directors, Executive Officers

Set forth below are the name, age and position and a brief account of the business experience of each of our executive officers and directors:

Name	Age	Office	Director Since
Marc Rubin (1)	55	Executive Chairman of the Board	November 2007
Sunil Bhonsle	60	President and Director	February 2004
Victor J. Bauer (2)	74	Director	November 1997
Eurelio M. Cavalier (1)(3)(4)	77	Director	September 1998
Hubert E. Huckel (1)(2)(3)	78	Director	October 1995
Joachim Friedrich Kapp	67	Director	August 2005
M. David MacFarlane (2)(4)	69	Director	May 2002
Ley S. Smith (1)(2)(4)	75	Director	July 2000

(1) Member of Executive Committee
(2) Member of Audit Committee
(3) Member of Compensation Committee
(4) Member of Nominating Committee

Marc Rubin, M.D. served as our President and Chief Executive from October 2007 until December 2008 and was re-engaged as our Executive Chairman in May 2009. Until February 2007, Dr. Rubin served as Head of Global Research and Development for Bayer Schering Pharma, as well as a member of the Executive Committee of Bayer Healthcare and the Board of Management of Bayer Schering Pharma. Prior to the merger of Bayer Pharmaceuticals and Schering AG in June 2006, Dr. Rubin was a member of the Executive Board of Schering AG since joining such company in October 2003, as well as Chairman of Schering Berlin Inc. and President of Berlex Pharmaceuticals, a division of Schering AG. From 1990 until August 2003, Dr. Rubin was employed by GlaxoSmithKline where he held positions of responsibility in global clinical and commercial development overseeing programs in the United States, Europe, Asia and Latin America. From 2001 through 2003, he was Senior Vice President of Global Clinical Pharmacology & Discovery Medicine. Dr. Rubin holds an M.D. from Cornell University Medical College. Dr. Rubin currently serves on the board of directors of Medarex, Inc.

Sunil Bhonsle served as our Executive Vice President and Chief Operating Officer from September 1995 until December 2008 and was re-engaged as our President in May 2009. Mr. Bhonsle served in various positions, including Vice President and General Manager—Plasma Supply and Manager—Inventory and Technical Planning, at Bayer Corporation from July 1975 until April 1995. Mr. Bhonsle holds an M.B.A. from the University of California at Berkeley and a B.Tech. in chemical engineering from the Indian Institute of Technology.

Victor J. Bauer, Ph.D. serves as the Executive Vice President of Concordia Pharmaceuticals, Inc., a biopharmaceutical company he co-founded in January 2004. From February 1997 through March 2003, Dr. Bauer was employed by Titan, most recently as our Executive Director of Corporate Development. From April 1996 until its merger into Titan, Dr. Bauer also served as a director and Chairman of Theracell. From December 1992 until February 1997, Dr. Bauer was a self-employed consultant to companies in the pharmaceutical and biotechnology industries. Prior to that time, Dr. Bauer was with Hoechst-Roussel Pharmaceuticals Inc., where he served as President from 1988 through 1992.

Eurelio M. Cavalier was employed in various capacities by Eli Lilly & Co. from 1958 until his retirement in 1994, serving as Vice President Sales from 1976 to 1982 and Group Vice President U.S. Pharmaceutical Business Unit from 1982 to 1993.

Hubert E. Huckel, M.D. served in various positions with The Hoechst Group from 1964 until his retirement in December 1992. At the time of his retirement, Dr. Huckel was Chairman of the Board of Hoechst-Roussel Pharmaceuticals, Inc., Chairman and President of Hoechst-Roussel Agri-Vet Company and a member of the Executive Committee of Hoechst Celanese Corporation. He currently serves on the board of directors of ThermoGenesis Corp., Catalyst Pharmaceuticals, Inc. and Concordia Pharmaceuticals, Inc. He is a member of the compensation committee of ThermoGenesis Corp.

Joachim Friedrich Kapp, M.D., Ph.D. has worked in various capacities for Schering AG since 1975, from 1991 on as President of the Global Business Unit, Specialized Therapeutics. Dr. Kapp worked in various capacities with Warner Lambert and its subsidiaries between 1984 and 1990. Dr. Kapp holds an M.D. and a Ph.D. from The University of Essen, Germany.

M. David MacFarlane, Ph.D. served as Vice President and Responsible Head of Regulatory Affairs of Genentech, Inc from 1989 until his retirement in August 1999. Prior to joining Genentech, Inc., he served in various positions with Glaxo Inc., last as Vice President of Regulatory Affairs.

Ley S. Smith served in various positions with The Upjohn Company and Pharmacia & Upjohn from 1958 until his retirement in November 1997. From 1991 to 1993 he served as Vice Chairman of the Board of The Upjohn Company, and from 1993 to 1995 he was President and Chief Operating Officer of The Upjohn Company. At the time of his retirement, Mr. Smith was Executive Vice President of Pharmacia & Upjohn, and President of Pharmacia & Upjohn's U.S. Pharma Product Center.

Directors serve until the next annual meeting or until their successors are elected and qualified. Officers serve at the discretion of the board of directors, subject to rights, if any, under contracts of employment. See "Item 6. Executive Compensation—Employment Agreements."

Item 6. Executive Compensation

Overview

During the last approximately 18 months, our company has undergone significant changes to its operations and organizational structure. In late 2007, we had three promising late stage product development programs, iloperidone, Probuphine and Spheramine. Planning for the future, we added to the executive management team with the addition on October 1, 2007 of Marc Rubin as Chief Executive Officer. Simultaneously, Louis Bucalo assumed the role of Executive Chairman. Later, in April 2008, we entered into an agreement with Dr. Bucalo pursuant to which he retired and resigned as an officer and member of our board of directors.

In July 2008, we experienced adverse events in connection with our iloperidone and Spheramine development programs that negatively impacted our financial position and the market price of our common stock. Consequently, upon the recommendation of our Compensation Committee, in October 2008 we implemented an employee retention program in order to bolster our ability to pursue our objective of completing an appropriate transaction for the advancement of the Probuphine development program. The retention program consisted of two components—the issuance of restricted shares in lieu of the annual option grants that would otherwise be made in January 2009 and modifications to existing severance provisions. On October 21, 2008, an aggregate of 1,430,000 restricted shares were granted with varying vesting schedules to our employees, of which a total of 900,000 were granted to Marc Rubin, Sunil Bhonsle and Robert Farrell, our three executive officers at that time. As part of the retention program, we made a determination to increase the severance period for substantially all of its employees in the event that within one year following a change in control the employee's employment were terminated (including constructive termination) other than for cause.

Following a further decline in the market value of the Company and to conserve capital, in December 2008 we effected an approximately 90% reduction in our workforce in order to reduce operations to the minimal level necessary to enable us to continue our efforts to realize the potential value of our assets, particularly the Probuphine program. As part of the reduction plan, Dr. Rubin and Mr. Bhonsle entered into separation agreements pursuant to which they ended their employment relationships with us but agreed to assist us during the next six months, as needed, in connection with the aforementioned efforts. Robert Farrell, Chief Financial Officer, assumed the role of President pursuant to the terms of a retention agreement. Accordingly, by year end, we had three employees, including Mr. Farrell who served as our sole executive officer. In April 2009, we terminated Mr. Farrell's employment and Mr. Bhonsle, a board member, stepped in as our interim President. As a result of the foregoing, all but 5,000 of the restricted shares issued as part of the October 2008 retention program were cancelled.

In May 2009, the FDA's approval of Fanapt substantially increased our opportunities and our board recommended the rehiring of certain of our former officers, including Dr. Rubin, who agreed to serve as our Executive Chairman, and Sunil Bhonsle, who assumed the role of President. Their compensation packages were structured by our Compensation Committee with minimal or no base salary, payment of which was also deferred to help maximize our limited cash resources, and to return the executives to an equity position comparable to that which existed prior to their termination five months earlier.

This compensation discussion describes the material elements of compensation awarded to, earned by, or paid to each of our executive officers who served as named executive officers during the year ended December 31, 2009, our last completed fiscal year prior to the filing of this Form 10. This compensation discussion focuses on the information contained in the following tables and related footnotes and narrative for primarily the last completed fiscal year; however, in light of the material changes in our operations and management team described above and elsewhere in this Form 10, we also describe compensation actions taken before or after the last completed fiscal year to the extent it enhances the understanding of our executive compensation disclosure.

Compensation Program Objectives and Philosophy

Our Compensation Committee currently oversees the design and administration of our executive compensation program. It reviews and approves all elements of compensation for each of our named executive officers taking into consideration recommendations from our principal executive officer (for compensation other than his own), as well as competitive market guidance from the Radford Biotechnology Surveys and, when applicable, other independent third-party compensation consultants. We define our competitive markets for executive talent to be the pharmaceutical and biotechnology industries in northern California and New Jersey. To date, we have utilized the Radford Biotechnology Surveys, a third party market specific compensation survey, and, when applicable, other independent third-party compensation consultants to benchmark our executive compensation.

The principal elements of our executive compensation program have historically been base salary, annual cash incentives, long-term equity incentives in the form of stock options, other benefits and perquisites, post-termination severance and acceleration of stock option vesting for certain named executive officers upon termination and/or a change in control. Our other benefits and perquisites have consisted of life, health and disability insurance benefits, and a qualified 401(k) savings plan. Our philosophy has been to position the aggregate of these elements at a level that is competitive within the industry and commensurate with our size and performance. During the last 18 months, our compensation philosophy has evolved to accommodate our changing circumstances, operational needs and limited financial resources during this period.

During 2009, our operations were initially focused on winding down the company while maximizing the value that could be returned to the shareholders. Subsequently, following the approval of iloperidone by the FDA in May 2009, we have focused on efforts to realize maximum shareholder value from both iloperidone and Probuphine, while limiting expenses to stay within the available cash resources. Accordingly, our Compensation Committee implemented a compensation plan which substantially limited the base salary while providing additional potential earnings through stock option awards.

Base Salaries

During 2009, the base salary of the named executives is reflective of the limited availability of funds and the reduced level of operations. Accordingly, Mr. Farrell, President and CFO from January to April 2009 accepted an approximately 25% reduction in base salary from the prior years base salary. Dr. Rubin and Mr. Bhonsle, whose employment was terminated in December 2008, received a lump sum severance payment in January 2009 and continued to provide services in support of winding down the operations. Dr. Rubin and Mr. Bhonsle have indicated that such services were undertaken in their roles as directors of Titan and that we do not owe them any consulting fees for work performed prior to their re-employment in May 2009, except for the time during which Mr. Bhonsle assumed the role of Acting President during the months of April and May 2009 for which he was paid approximately $12,400. Following the approval of iloperidone by the FDA, both Dr. Rubin and Mr. Bhonsle executed employment agreements that terminate on February 28, 2010. Dr. Rubin was engaged as Executive Chairman with no base salary and Mr. Bhonsle was confirmed as our President with a base salary of $ 200,000 per year, an approximately 33% reduction from the prior year, payment of which has been deferred until our receipt of funds. See “Employment Agreements” below.

Long-term Equity Incentives

We provide the opportunity for our named executive officers and other executives to earn a long-term equity incentive award. Long-term incentive awards provide employees with the incentive to stay with us for longer

periods of time, which in turn, provides us with greater stability. Equity awards also are less costly to us in the short term than cash compensation. We review long-term equity incentives for our named executive officers and other executives annually.

For our named executive officers, our stock option grants are of a size and term determined and approved by the Compensation Committee in consideration of the range of grants in the Radford Survey. We have traditionally used stock options as our form of equity compensation because stock options provide a relatively straightforward incentive for our executives, result in less immediate dilution of existing shareholders' interests and, prior to our adoption of FAS 123(R), resulted in less compensation expense for us relative to other types of equity awards. Generally, all grants of stock options to our employees were granted with exercise prices equal to or greater than the fair market value of our common stock on the respective grant dates. For a discussion of the determination of the fair market value of these grants, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and the Use of Estimates."

We do not time stock option grants to executives in coordination with the release of material non-public information. Our stock option grants have a 10-year contractual exercise term. In general, the option grants are also subject to the following post-termination and change in control provisions:

Event	Award Vesting	Exercise Term
• Termination by us for Reason Other than Cause, Disability or Death	• Forfeit Unvested Options	• Earlier of: (1) 90 days or (2) Remaining Option Period
• Termination for Disability, Death or Retirement	• Forfeit Unvested Options	• Earlier of: (1) 2 years or (2) Remaining Option Period
• Termination for Cause	• Forfeit Vested and Unvested Options	• Expire
• Other Termination	• Forfeit Unvested Options	• Earlier of: (1) 90 days or (2) Remaining Option Period
• Change in Control	• Accelerated*	• *

* The Compensation Committee may provide that, in the event of a change in control, any outstanding awards that are unexercisable or otherwise unvested will become fully vested and immediately exercisable. If there is a termination of employment, the applicable termination provisions regarding exercise term will apply.

The vesting of certain of our named executive officers' stock options is accelerated pursuant to the terms of their employment agreements in certain change in control events. These terms are more fully described in "—Employment Agreements" and "—Potential Payments upon Termination or Change in Control."

Upon termination of employment of Dr. Rubin and Mr. Bhonsle in December 2008, all prior stock option grants ceased further vesting and the vested stock options continued to be available for exercise while they remained members of the board of directors. Prior stock option grants awarded to Mr. Farrell, who continued as the President and Chief Financial Officer until April 2009, continued to vest during the term of his employment and the vested stock options subsequently expired unexercised 90 days following termination of his employment.

At the time of re-engagement of Dr. Rubin as Executive Chairman in May 2009, he was awarded a stock option grant of 1,000,000 shares with immediate vesting of 25% of the grant and the remainder to vest monthly over four years. This is the only compensation given to Dr. Rubin. Similarly, upon the confirmation of Mr. Bhonsle as the President, he was awarded a stock option grant to purchase 700,000 shares of common stock with immediate vesting of 25% and the remainder to vest monthly over four years.

Compensation Committee Interlocks and Insider Participation

Members of our Compensation Committee of the board of directors were Mr. Eurelio M. Cavalier, Dr. Hubert E. Huckel and Dr. Joachim Friedrich Kapp. No member of our Compensation Committee was, or has been, an officer or employee of Titan or any of our subsidiaries.

No member of the Compensation Committee has a relationship that would constitute an interlocking relationship with executive officers or directors of the Company or another entity.

SUMMARY COMPENSATION TABLE

The following table shows information concerning the annual compensation for services provided to us by our Chief Executive Officer, our Chief Financial Officer and our other executive officers for the periods set forth.

Name and Principal Position(1)	Year	Salary ($)	Bonus ($)	Option Awards(2) ($)	All Other Compensation ($)	Total Compensation ($)
Marc Rubin, M.D.(3)(4)(5)	2009	$384,326	—	$197,139	$ —	$ 581,465
Executive Chairman	2008	430,639	—	21,243	36,767	488,649
	2007	103,750	—	154,691	—	258,441
Louis R. Bucalo, M.D.(6)(7)	2009	328,125	—	—	—	328,125
Former Executive Chairman	2008	375,169	—	143,070	2,000	520,239
	2007	493,328	—	236,160	—	729,488
Sunil Bhonsle (8)	2009	402,487	—	160,173	12,400	575,060
President	2008	340,550	—	66,198	—	406,748
	2007	297,583	—	159,082	—	456,665
Robert E. Farrell, J.D.(9)	2009	216,862	—	—	—	216,862
Former Executive Vice President and Chief Financial Officer	2008	402,099	—	39,280		441,379
	2007	248,508	—	124,026	—	372,534

(1) The positions listed are the most recent held by such individuals.
(2) Valuation based on the dollar amount of option grants and stock awards recognized for financial statement reporting purposes pursuant to FAS 123(R). The assumptions used by us with respect to the valuation of option grants and stock awards are set forth in "Titan Pharmaceuticals, Inc. Consolidated Financial Statements—Notes to Financial Statements—Note 12—Stock Plans" and "Titan Pharmaceuticals, Inc. Unaudited Condensed Consolidated Financial Statements—Notes to Financial Statements—Note 2—Stock Plans."
(3) Dr. Rubin's 2007 salary has been prorated to reflect his October 1, 2007 employment start date.
(4) Dr. Rubin's employment was terminated on December 15, 2008. His 2008 salary includes $26,374 in compensation related to accrued vacation and his 2009 salary includes a one time severance payment of $384,326 made in January 2009.
(5) Dr. Rubin's 2008 other compensation consists of housing and transportation costs of $36,767.
(6) Dr. Bucalo's 2007 salary includes $106,812 in compensation related to accrued vacation.
(7) Dr. Bucalo's employment was terminated in April 2008 and he will receive salary continuation payments until April 2010. During 2009 and 2008, Dr. Bucalo received salary continuation payments of $328,125 and $250,018, respectively, and reimbursement of legal expenses of $2,000 in 2008. Dr. Bucalo's outstanding options will continue to vest under the terms of his severance agreement through April 2010.
(8) Mr. Bhonsle's employment was terminated on December 15, 2008. His 2008 salary includes $46,319 related to accrued vacation and his 2009 salary includes a one time severance payment of $277,487 made in January 2009.
(9) Mr. Farrell's employment was terminated in April 2009. His 2008 salary includes $40,768 related to accrued vacation and $100,000 of severance related to his December 2008 retention agreement. Mr. Farrell's 2009 salary includes a payment of $161,824 related to the remaining balance of his severance.

For a description of the material terms of employment agreements with our current and former named executive officers, see "—Employment Agreements."

GRANTS OF PLAN-BASED AWARDS(1)

Name	Grant Date	Approval Date(2)	Number of Shares of Common Stock Underlying Options (#)	Exercise or Base Price of Option Awards ($/Sh)	Grant Date Fair Value of Stock and Option Awards($)(3)
Marc Rubin, M.D.	05/17/2009	05/17/2009	385,000 (5)	$ 0.79	$ 287,557
	05/17/2009	05/17/2009	615,000 (7)	0.79	459,344
	05/17/2009	05/17/2009	10,000 (4)	0.79	7,469
	05/17/2009	05/17/2009	5,000 (4)	0.79	3,735
	05/17/2009	05/17/2009	100,000 (6)	0.79	74,690
Sunil Bhonsle	05/17/2009	05/17/2009	390,000 (8)	0.79	291,291
	05/17/2009	05/17/2009	310,000 (7)	0.79	231,539
	05/17/2009	05/17/2009	100,000 (6)	0.79	74,690
	05/17/2009	05/17/2009	10,000 (4)	0.79	7,469

(1) A portion of each award was granted outside the 2002 Plan in light of the annual 500,000 share grant limitation on individual recipients.
(2) All grants were approved by the Compensation Committee on the dates indicated to be granted on the indicated grant date.
(3) Valuation assumptions are found under "Titan Pharmaceuticals, Inc. Unaudited Condensed Consolidated Financial Statements —Notes to Financial Statements—Note 2—Stock Plans."
(4) These options vest in 12 equal monthly installments beginning on the grant date.
(5) 250,000 options were fully vested on the grant date with the balance of the options vesting in 48 equal monthly installments beginning on the grant date.
(6) Reflects grants to such individuals in their capacity as directors. See "Director Compensation."
(7) These options were granted outside the 2002 Plan and vest in 48 equal monthly installments beginning on the grant date.
(8) 175,000 options were fully vested on the grant date with the balance of the options vesting in 48 equal monthly installments beginning on the grant date with the vesting of 100,000 shares contingent upon the sale or partnering of the Probuphine program.

Employee Benefits Plans

The principal purpose of our stock incentive plans is to attract, motivate, reward and retain selected employees, consultants and directors through the granting of stock-based compensation awards. The stock option plans provides for a variety of awards, including non-qualified stock options, incentive stock options (within the meaning of Section 422 of the Code), stock appreciation rights, restricted stock awards, performance-based awards and other stock-based awards.

2002 Stock Incentive Plan

In July 2002, we adopted the 2002 Stock Incentive Plan, or the 2002 Plan. The 2002 Plan assumed the options which remain available for grant under our option plans previously approved by stockholders. Under the 2002 Plan and predecessor plans, a total of approximately 7.4 million shares of our common stock were authorized for issuance to employees, officers, directors, consultants, and advisers. Options granted under the 2002 Plan and predecessor plans may either be incentive stock options within the meaning of Section 422 of the Internal Revenue Code and/or options that do not qualify as incentive stock options; however, only employees are eligible to receive incentive stock options. Options granted under the option plans generally expire no later than ten years from the date of grant, except when the grantee is a 10% shareholder, in which case the maximum term is five years from the date of grant. Options generally vest at the rate of one fourth after one year from the date of grant and the remainder ratably over the subsequent three years, although options with different vesting terms are granted from time-to-time. Generally, the exercise price of any options granted under the 2002 Plan must be at least 100% of the fair market value of our common stock on the date of grant, except when the grantee is a 10% shareholder, in which case the exercise price shall be at least 110% of the fair market value of our common stock on the date of grant.

In August 2005, we adopted an amendment to the 2002 Plan to (i) permit the issuance of shares of restricted stock and stock appreciation rights to participants under the 2002 Plan, and (ii) increase the number of shares issuable pursuant to grants under the 2002 Plan from 2,000,000 to 3,000,000.

2001 Stock Option Plan

In August 2001, we adopted the 2001 Employee Non-Qualified Stock Option Plan, or the 2001 NQ Plan, pursuant to which 1,750,000 shares of common stock were authorized for issuance for option grants to employees

and consultants who are not officers or directors of Titan. Options granted under the option plans generally expire no later than ten years from the date of grant. Option vesting schedule and exercise price are determined at time of grant by the board of directors. Generally, the exercise prices of options granted under the 2001 NQ Plan were 100% of the fair market value of our common stock on the date of grant.

General

Set forth below is information regarding the 2002 Plan and the 2001 NQ Plan, which we refer to herein collectively as the Stock Option Plans.

Administration. The Stock Option Plans are administered by our Compensation Committee. The Compensation Committee may in certain circumstances delegate certain of its duties to one or more of our officers. The Compensation Committee has the power to interpret the Stock Option Plans and to adopt rules for the administration, interpretation and application of the plans according to their terms.

Grant of Awards; Shares Available for Awards. Certain employees, consultants and directors are eligible to be granted awards under the plans. The Compensation Committee will determine who will receive awards under the plans, as well as the form of the awards, the number of shares underlying the awards, and the terms and conditions of the awards consistent with the terms of the plans.

A total of approximately 9.1 million shares of our common stock are available for issuance or delivery under our existing Stock Option Plans. The number of shares of our common stock issued or reserved pursuant to the Stock Option Plans will be adjusted at the discretion of our Board or the Compensation Committee as a result of stock splits, stock dividends and similar changes in our common stock. In addition, shares subject to grant under our prior option plans (including shares under such plans that expire unexercised or are forfeited, terminated, canceled or withheld for income tax withholding) shall be merged and available for issuance under the 2002 Stock Option Plan, without reducing the aggregate number of shares available for issuance reflected above.

Stock Options. The Stock Option Plans permit the Compensation Committee to grant participants incentive stock options, which qualify for special tax treatment in the United States, as well as non-qualified stock options. The Compensation Committee will establish the duration of each option at the time it is granted, with a maximum ten-year duration for incentive stock options, and may also establish vesting and performance requirements that must be met prior to the exercise of options. Stock option grants (other than incentive stock option grants) also may have exercise prices that are less than, equal to or greater than the fair market value of our common stock on the date of grant. Incentive stock options must have an exercise price that is at least equal to the fair market value of our common stock on the date of grant. Stock option grants may include provisions that permit the option holder to exercise all or part of the holder's vested options, or to satisfy withholding tax liabilities, by tendering shares of our common stock already owned by the option holder for at least six months (or another period consistent with the applicable accounting rules) with a fair market value equal to the exercise price.

Stock Appreciation Rights. The Compensation Committee may also grant stock appreciation rights, which will be exercisable upon the occurrence of certain contingent events. Stock appreciation rights entitle the holder upon exercise to receive an amount in any combination of cash, shares of our common stock (as determined by the Compensation Committee) equal in value to the excess of the fair market value of the shares covered by the stock appreciation right over the exercise price of the right, or other securities or property owned by us.

Other Equity-Based Awards. In addition to stock options and stock appreciation rights, the Compensation Committee may also grant certain employees, consultants and directors shares of restricted stock, with terms and conditions as the Compensation Committee may, pursuant to the terms of the Stock Option Plan, establish. The Stock Option Plan does not allow awards to be made under terms and conditions which would cause such awards to be treated as deferred compensation subject to the rules of Section 409A of the Code.

Change-in-Control Provisions. In connection with the grant of an award, the Compensation Committee may provide that, in the event of a change in control, any outstanding awards that are unexercisable or otherwise unvested will become fully vested and immediately exercisable.

Amendment and Termination. The Compensation Committee may adopt, amend and rescind rules relating to the administration of the Stock Option Plans, and amend, suspend or terminate the Stock Option Plans, but no

amendment will be made that adversely affects in a material manner any rights of the holder of any award without the holder's consent, other than amendments that are necessary to permit the granting of awards in compliance with applicable laws. We have attempted to structure the Stock Option Plans so that remuneration attributable to stock options and other awards will not be subject to a deduction limitation contained in Section 162(m) of the Code.

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END

The following tables summarizes the number of securities underlying outstanding plan awards for each named executive officer as of December 31, 2009.

	Option Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
Marc Rubin, M.D.	437,500	—	$ 2.40	10/01/2017
	2,500	—	1.52	1/2/2018
	5,000	—	1.52	5/30/2018
	89,657	525,313 (2)	0.79	5/17/2019
	100,000	—	0.79	5/17/2019
	2,916	2,084 (1)	0.79	5/17/2019
	5,833	4,167 (1)	0.79	5/17/2019
	169,687	115,313 (2)	0.79	5/17/2019
Sunil Bhonsle	42,000	—	22.98	1/8/2011
	31,500	—	11.63	8/9/2011
	90,000	—	8.77	1/16/2012
	50,000	—	1.50	3/1/2013
	60,000	—	3.69	2/9/2014
	70,000	—	2.62	2/7/2015
	80,137	—	1.40	1/3/2016
	11,250	—	2.35	8/29/2016
	76,666	—	3.13	1/3/2017
	5,000	—	1.52	5/30/2018
	45,208	264,792 (3)	0.79	5/17/2019
	100,000	—	0.79	5/17/2019
	5,833	4,167 (1)	0.79	5/17/2019
	206,354	183,646 (3)	0.79	5/17/2019

(1) These options vest in 12 equal monthly installments beginning on May 17, 2009.
(2) These options vest in 48 equal monthly installments beginning on May 17, 2009.
(3) These options vest in 48 equal monthly installments beginning on May 17, 2009, with the vesting of 100,000 shares contingent upon the sale or partnering of the Probuphine program.

The following table summarizes the option exercises by our named executive officers during 2009.

Name	Number of Shares Acquired on Exercise	Value Realized on Exercise (1)
Marc Rubin	100,000	$ 58,500
Sunil Bhonsle	54,863	—

(1) Represents the amounts realized based on the difference between the market price of our common stock on the date of exercise and the exercise price.

Pension Benefits

We do not sponsor any qualified or non-qualified defined benefit plans.

Nonqualified Deferred Compensation

We do not maintain any non-qualified defined contribution or deferred compensation plans. The Compensation Committee, which is comprised solely of "outside directors" as defined for purposes of Section 162(m) of the Code, may elect to provide our officers and other employees with non-qualified defined contribution or deferred compensation benefits if the Compensation Committee determines that doing so is in our best interests. We sponsor a tax qualified defined contribution 401(k) plan in which Dr. Rubin, Dr. Bucalo, Mr. Bhonsle, and Mr. Farrell participated.

Employment Agreements

Marc Rubin

In October 2007, we entered into an employment agreement with Marc Rubin (the "First Rubin Agreement") in connection with his joining our company as President and Chief Executive Officer. The First Rubin Agreement provided for an annual salary of $415,000 and an annual discretionary bonus of 0-50% based on the achievement of individual and company performance goals to be established by Dr. Rubin in consultation with senior management and approved by our board of directors. Upon joining Titan, Dr. Rubin received options to acquire 1,500,000 shares of our common stock that were to vest monthly over a four-year period, subject to a requirement of at least 12 months of employment for the vesting of any options. The First Rubin Agreement provided for the termination of employment by either party at any time for any reason by giving written notice to the other party. In the event his employment was terminated by us without Cause or by Dr. Rubin for Good Reason, or in the event of his death or Disability (as such terms are defined in such agreement), Dr. Rubin would be entitled to 12 months' severance. The First Rubin Agreement contained customary non-competition and non-solicitation provisions. Dr. Rubin's compensation package was determined based on a review of CEO compensation information provided in the Radford Biotechnology Survey. In addition, we engaged Compensation Resources, a consulting firm, to provide information on current CEO compensation packages for similar companies. In connection with its review of Dr. Rubin's proposed compensation package, our Compensation Committee retained ExeQuity LLP, a consulting firm specializing in executive compensation, which concurred that the proposed compensation was appropriate and within the mid-range for similarly situated executives.

In December 2008, we entered into a separation agreement with Dr. Rubin (the "Rubin Severance Agreement") pursuant to which we agreed to pay Dr. Rubin a one time severance payment of $384,326, representing the net present value of his base salary for 12 months less an amount he forfeited to enable us to make severance payments to certain other employees. The Rubin Severance Agreement stated that the exercise period of all vested options held by Dr. Rubin would terminate 90 days after he ceases to be a member of our board. Under the Rubin Severance Agreement, Dr. Rubin agreed to provide transition services to us through June 15, 2009 at an hourly rate of $205 to be paid at such time as we receive proceeds from the sale of the company or our assets or royalties from Fanapt™. Services provided by Dr. Rubin during this interim period were conducted within the scope of his responsibilities as a member of our board of directors and, accordingly, no payments are owed to him for transition services.

In May 2009, in connection with our re-engagement of our executive officers following the FDA's approval of Fanapt™, we entered into a new employment agreement with Dr. Rubin to serve as our Executive Chairman (the "Third Rubin Agreement"). Pursuant to the Third Rubin Agreement, until the earlier of our receipt of iloperidone royalty payments or February 28, 2010 (the "Trigger Date"), he will receive no cash salary. We granted Dr. Rubin options to purchase 1,000,000 shares of our common stock that vest as follows: 25% immediately and the balance monthly over a four-year period. Notwithstanding the foregoing, all unvested options held by Dr. Rubin automatically will become vested and exercisable immediately prior to the occurrence of a change of control. The Third Rubin Agreement contains non-competition provisions applicable during the term of employment.

Sunil Bhonsle

In December 2007, we amended our employment agreement with Sunil Bhonsle in order to maintain parity with the agreements with Drs. Rubin and Bucalo described herein (the "First Bhonsle Agreement"). The First Bhonsle Agreement, which was originally entered into in August 1995, provided for a base salary and eligibility to receive an annual performance bonus up to a specified percentage of base salary. The actual amount of the annual bonus was discretionary and determined based upon the executive's performance, our performance and certain

performance targets approved by our Compensation Committee. The First Bhonsle Agreement provided that Mr. Bhonsle would be entitled to 12 months' severance in the event that his employment was terminated by us without Cause or by him for Good Reason (as such terms are defined in such agreement or six months in the event of their death or disability and provided for the continued vesting of the employee's stock options during the severance period in the event of termination without Cause or for Good Reason. The First Bhonsle Agreement contained customary non-competition and non-solicitation provisions.

In December 2008, we entered into a separation agreement with Mr. Bhonsle (the "Bhonsle Severance Agreement") pursuant to which we agreed to pay Mr. Bhonsle a one time severance payment of $277,487, representing the net present value of his base salary for 12 months less an amount he forfeited to enable us to make severance payments to certain other employees. The Bhonsle Severance Agreement stated that the exercise period of all vested options held by Mr. Bhonsle would terminate on March 15, 2009 and on such date all of his vested options terminated unexercised. Mr. Bhonsle agreed to provide transition services to us through June 15, 2009 at an hourly rate of $150 to be paid at such time as we receive proceeds from the sale of the company or our assets or royalties from Fanapt™ . In April 2009, upon our termination of Mr. Farrell, Mr. Bhonsle stepped in to act as our sole executive officer. Services provided by Mr. Bhonsle from January until April 2009 were conducted within the scope of his responsibilities as a member of our board of directors and, accordingly, no payments are owed to him for such transition services. We paid Mr. Bhonsle approximately $12,400 in April 2009.

In May 2009, in connection with our re-engagement of our executive officers following the FDA's approval of Fanapt™, we entered into a new employment agreement with Mr. Bhonsle to serve as our President (the "Third Bhonsle Agreement"). The Third Bhonsle Agreement provides that until the Trigger Date, he is entitled to a cash salary of $200,000 per annum, payment of which will be deferred until we receive royalty payments from Fanapt or other financing that by its terms does not restrict such use, but in no event earlier than January 1, 2010 or later than March 15, 2010. Mr. Bhonsle was granted options to purchase 700,000, shares of our common stock that vest as follows: 25% immediately and the balance monthly over a four-year period; provided, however, that the vesting of 100,000 shares is also contingent upon the sale or partnering of the Probuphine program. Notwithstanding the foregoing, all unvested options held by Mr. Bhonsle automatically will become vested and exercisable immediately prior to the occurrence of a change of control. The Third Bhonsle Agreement contains non-competition provisions applicable during the term of employment.

Robert Farrell

In December 2007, we amended our employment agreement with Robert Farrell in order to maintain parity with the agreements with Drs. Rubin and Bucalo described herein (the "First Farrell Agreement"). The First Farrell Agreement, which was originally entered into in 1996, provided for a base salary and eligibility to receive an annual performance bonus up to a specified percentage of base salary. The actual amount of the annual bonus was discretionary and determined based upon the executive's performance, our performance and certain performance targets approved by our Compensation Committee. The First Farrell Agreement provided that Mr. Farrell would be entitled to 12 months' severance in the event that his employment was terminated by us without Cause or by him for Good Reason (as such terms are defined in such agreement or six months in the event of their death or disability and provided for the continued vesting of the employee's stock options during the severance period in the event of termination without Cause or for Good Reason. The First Farrell Agreement contained customary non-competition and non-solicitation provisions.

In December 2008, we entered into a one-year retention agreement with Mr. Farrell pursuant to which he assumed the role of President in addition to his role as Chief Financial Officer (the "Retention Agreement"). Under the Retention Agreement, we paid Mr. Farrell, in lieu of the 12 months' cash severance provided for in the First Farrell Agreement, a lump sum equal to $261,824, the net present value of his base salary for a period of 12 months, less required deductions required by law. The Retention Agreement provided for a monthly salary of $16,562.50 during the first six months and $8,281.25 thereafter. In April 2009, we terminated Mr. Farrell's employment. No further payments were made to him and all of his options subsequently expired unexercised.

Louis R. Bucalo

In October 2007, in connection with the restructuring of management, we entered into an agreement with Louis Bucalo pursuant to which he would continue to serve as Executive Chairman for an annual salary of $375,000 during the first two years of the agreement and $187,500 thereafter. Under the agreement, Dr. Bucalo's employment

could be terminated by either party at any time for any reason by giving written notice to the other party. In the event of termination by the Company without Cause or by Dr. Bucalo for Good Reason, or in the event of his death or Disability (as such terms are defined in the agreement), Dr. Bucalo was entitled to 24 months' severance, the 150,000 options he was granted in January 2008 would vest in full immediately, and all of his other options would continue to vest in accordance with their respective vesting schedules during such 24-month period.

In April 2008, we entered into an agreement with Dr. Bucalo pursuant to which he retired and resigned as Executive Chairman and a member of our board of directors. Under the terms of the agreement, we agreed to pay Dr. Bucalo his base monthly salary at the rates provided for in his employment agreement through May 14, 2010 (the "Compensation Period") and the 150,000 options granted to Dr. Bucalo in January 2008 vested in full immediately. All other options held by Dr. Bucalo will continue to vest in accordance with their terms and shall remain exercisable during the Compensation Period.

POTENTIAL PAYMENTS UPON TERMINATION OR CHANGE IN CONTROL

As set forth above under "Employment Agreements," as of December 31, 2008, we had terminated our employment arrangements with Drs. Bucalo and Rubin and Mr. Bhonsle and undertaken to make the lump sum or monthly severance payments agreed upon. At such date, we had also restructured our employment arrangement with Mr. Farrell and paid him a lump sum retention bonus in consideration of his agreement to terminate the severance provisions of his agreement. During 2009, we terminated Mr. Farrell's employment agreement and rehired Dr. Rubin and Mr. Bhonsle.

Pursuant to the Third Rubin Agreement and the Third Bhonsle Agreement, assuming a change of control had taken place as of December 31, 2009, Dr. Rubin and Mr. Bhonsle would have been entitled to accelerated vesting of their outstanding stock options described in the table below:

	Value of Equity Awards: Termination Without Cause or For Good Reason(1)	Value of Equity Awards: In Connection With a Change in Control(1)
Marc Rubin, M.D.	None	Fully Vested. 646,877 options with value of $983,253
Sunil Bhonsle.	None	Fully Vested. 452,605 options with value of $687,960

(1) Value is based on the aggregate difference between the respective exercise prices and the closing sale price of our common stock on December 31, 2009, which was $2.31 per share.

DIRECTOR COMPENSATION

Summary of Director Compensation

Non-employee directors are entitled to receive a fee for each meeting attended and all directors are entitled to receive stock options pursuant to our stockholder-approved stock option plans, including an initial grant of 10,000 options upon becoming a director, an annual grant of 10,000 options thereafter, and an annual grant of 5,000 options for each committee on which they serve. Directors are not precluded from serving us in any other capacity and receiving compensation therefore. Non-employee directors have also historically received an annual retainer fee of $15,000 in addition to the fee received for each meeting attended. In May 2009, in recognition of the large number (almost weekly) telephonic and in-person meetings attended by the members of the board to help manage the company between January and May 2009, each member of the board was awarded a stock option grant to purchase 100,000 shares of common stock with immediate vesting. In July, 2009, each non-employee director was awarded 2,500 shares of restricted stock in lieu of fees earned. The Compensation Committee has determined that commencing September 2009, non-employee directors will receive $500 for each telephonic board meeting attended

The following table summarizes compensation that our directors earned during 2009 for services as members of our board.

Name	Fees Earned or Paid in Cash($)	Stock Awards ($)	Options Awards($)(1)	Non-Equity Incentive Plan Compensation ($)	Change in Pension Value and Nonqualified Deferred Compensation Earnings ($)	All Other Compensation ($)	Total ($)
Victor J. Bauer, Ph.D.	$ 7,000	$ 2,600	$ 84,348	$ —	$ —	$ —	$91,348
Eurelio M. Cavalier	7,000	$ 2,600	88,849	—	—	—	95,849
Hubert E. Huckel, M.D.	7,000	$ 2,600	88,849	—	—	—	95,849
Joachim Friedrich Kapp, M.D., Ph.D.	7,000	$ 2,600	84,226	—	—	—	91,226
M. David MacFarlane, Ph.D.	7,000	$ 2,600	86,537	—	—	—	93,537
Ley S. Smith	6,500	$ 2,600	88,849	—	—	—	95,349

(1) Valuation based on the dollar amount of option grants recognized for financial statement reporting purposes pursuant to FAS 123(R) with respect to 2009. The assumptions we used with respect to the valuation of option grants are set forth in "Titan Pharmaceuticals Inc. Unaudited Consolidated Financial Statements for the nine month period ended September 30, 2009—Notes to Financial Statements—Note 2—Stock Plans."

Equity Compensation Plan Information

The following table sets forth aggregate information regarding our equity compensation plans in effect as of December 31, 2009:

Plan category	Number of securities to be issued upon exercise of outstanding options and awards (a)	Weighted-average exercise price of outstanding options and awards (b)	Number of securities remaining available for future issuance under equity compensation plans (c)
Equity compensation plans approved by security holders	4,130,404	$ 13.07	1,619,543
Equity compensation plans not approved by security holders(1)(2)(3)(4)	1,959,250	$ 1.40	798,716
Total	6,089,654	$ 11.65	2,418,259

(1) In August 2002, we amended our 2001 Employee Non-Qualified Stock Option Plan. Pursuant to this amendment, a total of 1,750,000 shares of common stock were reserved and authorized for issuance for option grants to employees and consultants who are not officers or directors of Titan.

(2) In November 1999 and in connection with the redemption of warrants, we granted 813,000 non-qualified stock options outside of our stock option plans to our executive officers, at an exercise price of $12.69, vesting equally over 36 months from the date of grant.

(3) In October 2007, we granted 1,500,000 non-qualified stock options outside of our stock option plans to our Chief Executive Officer, at an exercise price of $2.40, vesting equally over 48 months from the date of grant. At December 31, 2009, 437,500 of these non-qualified stock options remained outstanding.

(4) In May 2009, we granted 615,000 and 310,000 non-qualified stock options outside of our stock option plans to our Executive Chairman and President, respectively, at an exercise price of $0.79, vesting equally over 48 months from the date of grant.

Item 7. Certain Relationships and Related Transactions, and Director Independence

The following members of our board of directors, representing a majority of our board, meet the independence requirements and standards currently established by the NYSE Euronext (formerly the American Stock Exchange, or "Amex"): Victor J. Bauer, Eurelio M. Cavalier, Hubert E. Huckel, Joachim Friedrich Kapp, M. David MacFarlane and Ley S. Smith.

Item 8. Legal Proceedings

In March 2005, Dr. Bernard Sabel initiated an appraisal proceeding in the Court of Chancery of the State of Delaware relating to the merger of our subsidiary ProNeura, Inc. into Titan. In March 2009, we settled our dispute with Dr. Sabel and in April 2009, under the terms of the settlement, we paid $600,000 to Dr. Sabel.

Item 9. Market Price of and Dividends on the Registrant's Common Equity and Related Stockholder Matters

Prior to December 15, 2008, our common stock was listed on the Amex under the symbol "TTP". Following our voluntary delisting and termination of our Exchange Act reporting obligations, our common stock has been quoted on the OTC Pink Sheets system maintained by Pink OTC Markets Inc. under the symbol TTNP.PK The Pink Sheets market is extremely limited and any prices quoted may not be a reliable indication of the value of our common stock.

The following table sets forth, for the periods indicated, the high and low sales prices per share of our common stock as reported by Amex or the Pink OTC Markets Inc., as applicable. The quotations reflect inter-dealer prices without retail markups, markdowns, or commissions and may not represent actual transactions. For current price information, stockholders are urged to consult publicly available sources.

	High	Low
Fiscal 2009		
Fourth Quarter	$2.48	$1.33
Third Quarter	$1.75	$0.98
Second Quarter	$1.75	$0.03
First Quarter	$0.04	$0.02
Fiscal 2008		
Fourth Quarter	$0.25	$0.01
Third Quarter	$1.38	$0.20
Second Quarter	$1.65	$1.15
First Quarter	$1.69	$0.90
Fiscal 2007		
Fourth Quarter	$2.60	$1.47
Third Quarter	$2.50	$1.83
Second Quarter	$2.74	$1.93
First Quarter	$3.36	$2.10

Holders

As of December 31, 2009, there were 141 record holders of our common stock. Based on a Broadridge survey conducted in April 2008, we believe there are in excess of 8,000 beneficial holders of our common stock.

Dividends

We have never paid a cash dividend on our common stock and anticipate that for the foreseeable future any earnings will be retained for use in our business and, accordingly, do not anticipate the payment of cash dividends.

Item 10. Recent Sales of Unregistered Securities

The information below lists all of the securities sold by us during the past three years which were not registered under the Securities Act of 1933, as amended (the "Securities Act"). Except as set forth below, no underwriting discounts or commissions were incurred in connection with any of the following transactions. Each of the transactions was conducted as a private placement, without the use of any general solicitation, and was exempt from registration under Section 4(2) of the Securities Act.

In December 2007, we completed the sale of units consisting of 13,300,000 shares of our common stock and five-year warrants to purchase 6,650,000 shares of our common stock to several institutions and one individual accredited investor for gross proceeds of approximately $21.3 million. Net proceeds were approximately $19.9 million. The warrants have an exercise price of $2.00 per share.

In December 2009, we completed the sale of 300,000 shares of our common stock to one individual accredited investor for gross proceeds of approximately $510,000. Net proceeds were approximately $478,000.

Item 11. Description of Registrant's Securities to be Registered

The Company is authorized by its Certificate of Incorporation to issue an aggregate of 130,000,000 shares of capital stock, of which 125,000,000 are shares of common stock, par value $.001 per share (the "Common Stock") and 5,000,000 are shares of preferred stock, par value $.001 per share (the "Preferred Stock"). As of the date hereof, there were 59,247,742 shares of Common Stock and no shares of Preferred Stock issued and outstanding.

All outstanding shares of Common Stock are of the same class and have equal rights and attributes. The holders of Common Stock are entitled to one vote per share on all matters submitted to a vote of stockholders of the Company. All stockholders are entitled to share equally in dividends, if any, as may be declared from time to time by the board of directors out of funds legally available. In the event of liquidation, the holders of Common Stock are entitled to share ratably in all assets remaining after payment of all liabilities. The stockholders do not have cumulative or preemptive rights.

Our board of directors is empowered, without stockholder approval, to issue preferred stock with dividend, liquidation, conversion, voting or other rights which could adversely affect the voting power or other rights of the holders of common stock, although the underwriting agreement prohibits us, prior to a business combination, from issuing preferred stock which participates in any manner in the proceeds of the trust account, or which votes as a class with the common stock on a business combination. We may issue some or all of the preferred stock to effect a business combination. In addition, the preferred stock could be utilized as a method of discouraging, delaying or preventing a change in control of us. Although we do not currently intend to issue any shares of preferred stock, we cannot assure you that we will not do so in the future.

Item 12. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law (the "DGCL") provides that a corporation may indemnify directors and officers as well as other employees and individuals against expenses including attorneys' fees, judgments, fines and amounts paid in settlement in connection with various actions, suits or proceedings, whether civil, criminal, administrative or investigative other than an action by or in the right of the corporation, a derivative action, if they acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, if they had no reasonable cause to believe their conduct was unlawful. A similar standard is applicable in the case of derivative actions, except that indemnification only extends to expenses including attorneys' fees incurred in connection with the defense or settlement of such actions, and the statute requires court approval before there can be any indemnification where the person seeking indemnification has been found liable to the corporation. The statute provides that it is not exclusive of other indemnification that may be granted by a corporation's certificate of incorporation, bylaws, agreement, a vote of stockholders or disinterested directors or otherwise.

Our certificate of incorporation provides that we will indemnify and hold harmless, to the fullest extent permitted by Section 145 of the DGCL, as amended from time to time, each person that such section grants us the power to indemnify.

The DGCL permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to the corporation or its stockholders;
- acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- payments of unlawful dividends or unlawful stock repurchases or redemptions; or
- any transaction from which the director derived an improper personal benefit.

In accordance with Section 102(a)(7) of the DGCL, our certificate of incorporation eliminates the personal liability of directors to the registrant or its stockholders for monetary damages for breach of fiduciary duty as a director with certain limited exceptions set forth in Section 102(a)(7).

We also enter into indemnification agreements with each of our officers and directors, the form of which has been filed as Exhibit 10.6 and reference is hereby made to such form.

In addition, we currently maintain an officers' and directors' liability insurance policy which insures, subject to the exclusions and limitations of the policy, our officers and directors against certain liabilities which might be incurred by them solely in such capacities.

Item 13. Financial Statements and Supplementary Data.

See the financial statements and related notes beginning on page F-1 of this registration statement.

Item 14. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

There are not and have not been any disagreements between the Company and its accountants on any matter of accounting principles, practices or financial statement disclosure.

Item 15. Financial Statements and Exhibits

a) Index to Consolidated Financial Statements.

See the index to consolidated financial statements set forth on page F-1.

(b) Index to Exhibits.

See the exhibit index immediately following the signature page to this Form 10.

TITAN PHARMACEUTICALS, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of
Titan Pharmaceuticals, Inc.

We have audited the accompanying consolidated balance sheets of Titan Pharmaceuticals, Inc. and subsidiaries as of December 31, 2008 and 2007, and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2008. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these 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 financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's 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 audit opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes 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.

As discussed in Note 14 to the consolidated financial statements, on January 1, 2007, the Company adopted Financial Accounting Standards Board Interpretation No. 48, *Accounting for Uncertainty in Income Taxes*, *an Interpretation of FAS 109*.

In our opinion, the consolidated financial statements audited by us present fairly, in all material respects, the consolidated financial position of Titan Pharmaceuticals, Inc. and subsidiaries at December 31, 2008 and 2007, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 2008, in conformity with U.S. generally accepted accounting principles.

/s/ ODENBERG, ULLAKKO, MURANISHI & CO. LLP

San Francisco, California
January 13, 2010

TITAN PHARMACEUTICALS, INC.

CONSOLIDATED BALANCE SHEETS

	December 31,	
	2008	2007
	(in thousands of dollars)	
Assets		
Current assets:		
Cash and cash equivalents	$ 4,672	$ 25,614
Marketable securities	—	4,402
Prepaid expenses, receivables and other current assets	721	440
Total current assets	5,393	30,456
Property and equipment, net	275	388
Total Assets	$ 5,668	$ 30,844
Liabilities and Stockholders' equity		
Current liabilities:		
Accounts payable	$ 493	$ 557
Accrued clinical trials expenses	910	2,388
Other accrued liabilities	1,231	1,311
Total current liabilities	2,634	4,256
Commitments and contingencies		
Stockholders' Equity:		
Preferred stock, $0.001 par value per share; 5,000,000 shares authorized, none issued and outstanding:	—	—
Common stock, at amounts paid in, $0.001 par value per share; 125,000,000 shares authorized, 58,287,880 and 58,281,460 shares issued and outstanding at December 31, 2008 and 2007, respectively	255,403	255,429
Additional paid-in capital	13,415	11,508
Accumulated deficit	(267,025)	(241,591)
Accumulated other comprehensive income	—	1
Total Titan Pharmaceuticals, Inc.'s stockholders' equity	1,793	25,347
Non-controlling interest in Series B preferred stock of Ingenex, Inc.	1,241	1,241
Total stockholders' equity	3,034	26,587
Total Liabilities and Stockholders' Equity	$ 5,668	$ 30,844

See accompanying notes to consolidated financial statements.

TITAN PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

	Years ended December 31,		
	2008	2007	2006
	(in thousands, except per share amount)		
Revenue:			
License revenue	$ 73	$ 24	$ 32
Operating expenses:			
Research and development	16,235	12,244	11,620
General and administrative	9,756	6,213	4,859
Total operating expenses	25,991	18,457	16,479
Loss from operations	(25,918)	(18,433)	(16,447)
Other income (expense):			
Interest income	470	646	717
Other income (expense)	14	140	(7)
Other income, net	484	786	710
Net loss	$ (25,434)	$ (17,647)	$ (15,737)
Basic and diluted net loss per share	$ (0.44)	$ (0.41)	$ (0.42)
Weighted average shares used in computing basic and diluted net loss per share	58,285	42,998	37,902

See accompanying notes to consolidated financial statements.

TITAN PHARMACEUTICALS, INC

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(in thousands)

	Common Stock		Additional Paid-In Capital	Deferred Compensation	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity
	Shares	Amount					
Balances at December 31, 2005	**35,584**	**$214,331**	**$ 9,264**	**$ (19)**	**$ (208,207)**	**$ (9)**	**$ 15,360**
Comprehensive loss:							
Net loss					(15,737)		(15,737)
Unrealized gain on marketable securities						19	19
Comprehensive loss							(15,718)
Issuance of common stock, net of issuance costs of $730	3,077	9,270					9,270
Issuance of common stock upon exercise of options	314	620					620
Compensation related to stock options			854				854
Amortization of deferred compensation				19			19
Balances at December 31, 2006	**38,975**	**224,221**	**10,118**	**—**	**(223,944)**	**10**	**10,405**
Comprehensive loss:							
Net loss					(17,647)		(17,647)
Unrealized loss on marketable securities						(9)	(9)
Comprehensive loss							(17,656)
Issuance of common stock, net of issuance costs of $2,205	19,232	31,075					31,075
Issuance of common stock upon exercise of options	74	133					133
Compensation related to stock options			1,390				1,390
Balances at December 31, 2007	**58,281**	**255,429**	**11,508**	**—**	**(241,591)**	**1**	**$ 25,347**
Comprehensive loss:							
Net loss					(25,434)		(25,434)
Unrealized loss on marketable securities						(1)	(1)
Comprehensive loss							(25,435)
Issuance of common stock, net of issuance costs	7	(26)					(26)
Compensation related to stock options			1,907				1,907
Balances at December 31, 2008	**58,288**	**$255,403**	**$ 13,415**	**$ —**	**$ (267,025)**	**$ —**	**$ 1,793**

See accompanying notes to consolidated financial statements.

TITAN PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years ended December 31,		
	2008	2007	2006
	(in thousands of dollars)		
Cash flows from operating activities:			
Net loss	$(25,434)	$(17,647)	$(15,737)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	213	288	389
Gain on investment activities	(120)	(352)	—
(Gain) loss on disposition of property and equipment	—	(7)	5
Non-cash compensation related to stock options	1,907	1,390	873
Changes in operating assets and liabilities:			
Prepaid expenses, receivables and other current assets	(281)	278	712
Accounts payable	(64)	(4)	42
Accrued clinical trials and other liabilities	(1,558)	866	216
Net cash used in operating activities	(25,337)	(15,188)	(13,500)
Cash flows from investing activities:			
Purchases of property and equipment, net	(100)	(212)	(63)
Proceeds from the sale of investments	120	502	—
Purchases of marketable securities	—	(56,302)	(15,596)
Proceeds from maturities of marketable securities	—	27,945	19,740
Proceeds from the sale of marketable securities	4,401	28,048	—
Net cash provided by (used in) investing activities	4,421	(19)	4,081
Cash flows from financing activities:			
Issuance of common stock, net	(26)	31,208	9,890
Net cash provided by (used in) financing activities	(26)	31,208	9,890
Net increase (decrease) in cash and cash equivalents	(20,942)	16,001	471
Cash and cash equivalents at beginning of period	25,614	9,613	9,142
Cash and cash equivalents at end of period	4,672	25,614	9,613
Marketable securities at end of period	—	4,402	4,102
Cash, cash equivalents and marketable securities at end of period	$ 4,672	$ 30,016	$ 13,715

See accompanying notes to consolidated financial statements.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Organization and Summary of Significant Accounting Policies

The Company and its Subsidiaries

We are a biopharmaceutical company developing proprietary therapeutics primarily for the treatment of central nervous system ("CNS") disorders. Our product development programs focus primarily on large pharmaceutical markets with significant unmet medical needs and commercial potential. We are directly developing our product candidates and also utilizing corporate partnerships. These collaborations have helped to fund product development and have enabled us to retain significant economic interest in our products. At December 31, 2008, we owned 81% of Ingenex, Inc. assuming the conversion of all preferred stock to common stock. We operate in only one business segment, the development of pharmaceutical products.

In December 2008, we implemented an approximately 90% reduction in our workforce which included our Chief Executive Officer and Chief Operating Officer, to lower operating expenses and preserve capital. The remaining staff was focused on reducing all current clinical and manufacturing development activities to the minimal level necessary to continue our efforts to realize the potential value of our assets, particularly the Probuphine Phase 3 clinical development program. We incurred approximately $1,618,000 in severance-related expenses in connection with the workforce reduction. In addition, options to purchase 1,933,653 shares of our common stock and 865,000 shares of restricted stock held by our employees were cancelled.

We expect to continue to incur substantial additional operating losses from costs related to continuation of product and technology development, clinical trials, and administrative activities. We believe that our working capital at December 31, 2008 is sufficient to sustain our planned operations through 2009.

We will need to seek additional financing sources to fund our product development activities, and will be required to obtain substantial funding to commercialize any products other than iloperidone that we may successfully develop. If we are unable to complete a debt or equity offering, or otherwise obtain sufficient financing when and if needed, we may be required to reduce, defer or discontinue one or more of our product development programs.

Basis of Presentation and Consolidation

The accompanying consolidated financial statements include the accounts of Titan Pharmaceuticals, Inc. and our wholly and majority owned subsidiaries. All significant intercompany balances and transactions are eliminated.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

Stock Option Plans

Effective January 1, 2006, we adopted Statement of Financial Accounting Standard 123R, *Share Based Payment* ("SFAS 123R") using the modified-prospective-transition method. Under this transition method, stock compensation cost recognized beginning January 1, 2006 includes: (a) compensation cost for all share-based payments granted prior to, but not yet vested as of January 1, 2006, based on the grant-date fair value estimated in accordance with the original provisions of SFAS 123, and (b) compensation cost for all share-based payments granted on or subsequent to January 1, 2006, based on the grant-date fair value estimated in accordance with the provisions of SFAS 123R. Results for prior periods have not been restated.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

In November 2005, the FASB issued a Financial Statement Position ("FSP") on SFAS No. 123(R)-3, *Transition Election Related to Accounting for Tax Effects of Share-Based Payment Awards* ("FSP No. 123(R)-3"). Effective upon issuance, FSP No. 123(R)-3 provides for an alternative transition method for calculating the tax effects of stock- based compensation expense pursuant to SFAS 123R. The alternative transition method provides simplified approaches to establish the beginning balance of a tax benefit pool comprised of the additional paid-in capital ("APIC") related to the tax effects of employee stock-based compensation expense, and to determine the subsequent impact on the APIC tax benefit pool and the statement of cash flows of stock-based awards that were outstanding upon the adoption of SFAS 123R. The Company has made the election to calculate the tax effects of stock-based compensation expense using the alternative transition method pursuant to FSP No. 123(R)-3 and computed the beginning balance of the APIC tax benefit pool by applying the simplified method. Based on the Company's historical losses, the Company did not have cumulative excess tax benefits from stock-based compensation available in APIC that could be used to offset an equal amount of future tax shortfalls (i.e., when the amount of the tax deductible stock-based compensation is less than the related stock-based compensation cost).

Cash, Cash Equivalents and Marketable Securities

Our investment policy emphasizes liquidity and preservation of principal over other portfolio considerations. We select investments that maximize interest income to the extent possible given these two constraints. We satisfy liquidity requirements by investing excess cash in securities with different maturities to match projected cash needs and limit concentration of credit risk by diversifying our investments among a variety of high credit-quality issuers and limit the amount of credit exposure to any one issuer. The estimated fair values have been determined using available market information. We do not use derivative financial instruments in our investment portfolio.

All investments with original maturities of three months or less are considered to be cash equivalents. Our marketable securities, consisting primarily of high-grade debt securities including money market funds, U.S. government and corporate notes and bonds, and commercial paper, are classified as available-for-sale at time of purchase and carried at fair value. If the fair value of a security is below its amortized cost for six consecutive months or if its decline is due to a significant adverse event, the impairment is considered to be other-than-temporary. Other-than-temporary declines in fair value of our marketable securities are charged against interest income. We recognized no charges in 2008 and 2007 and $27,000 in 2006 as a result of charges related to other-than-temporary declines in the fair values of certain of our marketable securities. Amortization of premiums and discounts, and realized gains and losses are included in interest income. Unrealized gains and losses are included as accumulated other comprehensive income (loss), a separate component of stockholders' equity. The cost of securities sold is based on use of the specific identification method.

Property and Equipment

Property and equipment are recorded at cost and depreciated using the straight-line method over the estimated useful lives of the assets ranging from three to five years. Leasehold improvements are amortized over the shorter of the lease term or the estimated useful life of the assets.

Investment in Other Companies

We have invested in equity instruments of privately-held companies for business and strategic purposes. These investments are classified as long-term assets and are accounted for under the cost method as we do not have the ability to exercise significant influence over their operations. We monitor our investments for impairment and record reductions in carrying value when events or changes in circumstances indicate that the carrying value may not be recoverable. Determination of impairment is based on a number of factors, including an assessment of the strength of an investee's management, the length of time and extent to which the fair value has been less than our cost basis, the financial condition and near-term prospects of the investee, fundamental changes to the business prospects of the investee, share prices of subsequent offerings, and our intent and ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in our carrying value.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

In December 2001, we made a $300,000 equity investment in Molecular Medicine BioServices, Inc. for 714,286 shares of Series A Preferred stock. In May 2007, we entered into an agreement to sell our investment in Molecular Medicine BioServices, Inc. and received total proceeds of $577,000 related to the sale. We recognized as a gain on the sale of our investment the difference between the total proceeds and the carrying value in the accompanying consolidated statements of operations.

Revenue Recognition

We generate revenue principally from collaborative research and development arrangements, technology licenses, and government grants. Revenue arrangements with multiple components are divided into separate units of accounting if certain criteria are met, including whether the delivered component has stand-alone value to the customer, and whether there is objective and reliable evidence of the fair value of the undelivered items. Consideration received is allocated among the separate units of accounting based on their respective fair values, and the applicable revenue recognition criteria are then applied to each of the units.

Revenue is recognized when the four basic criteria of revenue recognition are met: (1) a contractual agreement exists; (2) transfer of technology has been completed or services have been rendered; (3) the fee is fixed or determinable; and (4) collectibility is reasonably assured. For each source of revenue, we comply with the above revenue recognition criteria in the following manner:

- Collaborative arrangements typically consist of non-refundable and/or exclusive technology access fees, cost reimbursements for specific research and development spending, and various milestone and future product royalty payments. If the delivered technology does not have stand-alone value or if we do not have objective or reliable evidence of the fair value of the undelivered component, the amount of revenue allocable to the delivered technology is deferred. Non-refundable upfront fees with stand-alone value that are not dependent on future performance under these agreements are recognized as revenue when received, and are deferred if we have continuing performance obligations and have no evidence of fair value of those obligations. Cost reimbursements for research and development spending are recognized when the related costs are incurred and when collections are reasonably expected. Payments received related to substantive, performance-based “at-risk” milestones are recognized as revenue upon achievement of the clinical success or regulatory event specified in the underlying contracts, which represent the culmination of the earnings process. Amounts received in advance are recorded as deferred revenue until the technology is transferred, costs are incurred, or a milestone is reached.
- Technology license agreements typically consist of non-refundable upfront license fees, annual minimum access fees or royalty payments. Non-refundable upfront license fees and annual minimum payments received with separable stand-alone values are recognized when the technology is transferred or accessed, provided that the technology transferred or accessed is not dependent on the outcome of our continuing research and development efforts.
- Government grants, which support our research efforts in specific projects, generally provide for reimbursement of approved costs as defined in the notices of grants. Grant revenue is recognized when associated project costs are incurred.

Research and Development Costs and Related Accrual

Research and development expenses include internal and external costs. Internal costs include salaries and employment related expenses, facility costs, administrative expenses and allocations of corporate costs. External expenses consist of costs associated with outsourced clinical research organization activities, sponsored research studies, product registration, patent application and prosecution, and investigator sponsored trials. In accordance with SFAS No. 2, *Accounting for Research and Development Costs*, all such costs are charged to expense as incurred. We also record accruals for estimated ongoing clinical trial costs. Clinical trial costs represent costs incurred by clinical research organizations, (“CROs”), and clinical sites. These costs are recorded as a component of R&D expenses. Under our agreements, progress payments are typically made to investigators, clinical sites and CROs. We analyze the progress of the clinical trials, including levels of patient enrollment, invoices received and contracted costs when evaluating the adequacy of accrued liabilities. Significant judgments and estimates must be made and used in determining the accrued balance in any accounting period. Actual results could differ from those estimates under different assumptions. Revisions are charged to expense in the period in which the facts that give rise to the revision become known.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Net Loss Per Share

We calculate basic net loss per share using the weighted average common shares outstanding for the period. Diluted net income per share would include the impact of other dilutive equity instruments, primarily our options and warrants. For the years ended December 31, 2008, 2007, and 2006, options and warrants totaled 13.3 million, 9.3 million, and 6.6 million shares, respectively. We reported net losses for all years presented and, therefore, options and warrants were excluded from the calculation of diluted net loss per share as they were anti-dilutive.

Comprehensive Income (Loss)

Comprehensive income (loss) is comprised of net loss and other comprehensive income. The only component of other comprehensive income is unrealized gains and losses on our marketable securities. Comprehensive loss for the years ended December 31, 2008, 2007, and 2006 was $25.4 million, $17.7 million, and $15.7 million, respectively. Comprehensive income (loss) has been disclosed in the accompanying consolidated statements of stockholders' equity for all periods presented.

Recent Accounting Pronouncements

Effective January 1, 2008, we adopted EITF 07-3, *Accounting for Advance Payments for Goods and Services to be Received for Use in Future Research and Development Activities* ("EITF 07-3"). EITF 07-3 requires that non-refundable advance payments for goods or services that will be used or rendered for future research and development activities be deferred and capitalized and recognized as an expense as the goods are delivered or the related services are performed, subject to an assessment of recoverability. The adoption did not have a material impact on our consolidated results of operations or financial condition.

In December 2007, the FASB issued SFAS 141 (revised 2007), *Business Combinations* ("SFAS 141R"). SFAS 141R establishes principles and requirements for how an acquirer recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, any non-controlling interest of the acquiree and the goodwill acquired. SFAS 141R also establishes disclosure requirements to enable the evaluation of the nature and financial effects of the business combination. This statement is effective for us beginning January 1, 2009. We will assess the potential impact of the adoption of SFAS 141R if and when a future acquisition occurs.

In September 2006, the Financial Accounting Standards Board ("FASB") issued SFAS No. 157, *Fair Value Measurements* ("SFAS 157"), which defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles, and expands disclosures about fair value measurements. SFAS 157 does not require any new fair value measurements, but provides guidance on how to measure fair value by providing a fair value hierarchy used to classify the source of the information. SFAS 157 is effective for fiscal years beginning after November 15, 2007. However, on December 14, 2007, the FASB issued proposed FSP FAS 157-b which would delay the effective date of SFAS 157 for all nonfinancial assets and nonfinancial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually). This proposed FSP partially defers the effective date of Statement 157 to fiscal years beginning after November 15, 2008, and interim periods within those fiscal years for items within the scope of this FSP. Effective January 1, 2008, we adopted SFAS 157 except as it applies to those nonfinancial assets and nonfinancial liabilities as noted in proposed FSP FAS 157-b. The adoption of SFAS 157 did not have a material impact on our consolidated financial position, results of operations or cash flows.

In November 2007, the EITF issued EITF Issue No. 07-1 ("EITF 07-1"), *Accounting for Collaborative Arrangements Related to the Development and Commercialization of Intellectual Property.* Companies may enter into arrangements with other companies to jointly develop, manufacture, distribute, and market a product. Often the activities associated with these arrangements are conducted by the collaborators without the creation of a separate legal entity (that is, the arrangement is operated as a "virtual joint venture"). The arrangements generally provide that the collaborators will share, based on contractually defined calculations, the profits or losses from the associated activities. Periodically, the collaborators share financial information related to product revenues generated (if any) and costs incurred that may trigger a sharing payment for the combined profits or losses. The consensus requires collaborators in such an arrangement to present the result of activities for which they act as the principal on a gross basis and report any payments received from (made to) other collaborators based on other applicable GAAP or, in the absence of other applicable GAAP, based on analogy to authoritative accounting literature or a reasonable, rational, and consistently applied accounting policy election. EITF 07-1 is effective for collaborative arrangements in place at the beginning of the annual period beginning after December 15, 2008. Management does not expect that the adoption EITF 07-1 will have a material impact on the Company's financial position and results of operations.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

In December 2007, the FASB approved the issuance of SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements — an amendment of ARB No. 51* ("SFAS 160"). SFAS 160 will change the accounting and reporting for minority interests, which will now be termed *noncontrolling interests*. SFAS 160 requires a noncontrolling interest to be presented as a separate component of equity and requires the amount of net income attributable to the parent and to the noncontrolling interest to be separately identified on the consolidated statement of operations. SFAS 160 is effective for fiscal years beginning on or after December 15, 2008. At this time, we do not expect adoption of SFAS 160 to have any impact on our financial position, results of operations or cash flows.

Effective January 1, 2008 we adopted SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities* - including an amendment of FASB Statement No. 115 ("SFAS 159"). SFAS 159 allows an entity the irrevocable option to elect fair value for the initial and subsequent measurement for specified financial assets and liabilities on a contract-by-contract basis. We did not elect to apply the fair value option under SFAS 159.

In February 2008, the FASB issued FASB Staff Position No. FSP FAS 157-2, *Effective Date of FASB Statement No. 157* ("FSP FAS 157-2"), which defers the effective date of SFAS No. 157, *Fair Value Measurements* , for all non-financial assets and non-financial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually), for fiscal years beginning after November 15, 2008 and interim periods within those fiscal years for items within the scope of FSP FAS 157-2. The adoption of FSP FAS 157-2 did not have a material impact on the Company's financial position or results of operations.

In March 2008, the FASB issued FAS No. 161, *Disclosures about Derivative Instruments and Hedging Activities — an amendment of FASB Statement No. 133* ("SFAS 161"). SFAS 161 requires enhanced disclosure related to derivatives and hedging activities and thereby seeks to improve the transparency of financial reporting. Under SFAS 161, entities are required to provide enhanced disclosures relating to: (a) how and why an entity uses derivative instruments; (b) how derivatives instruments and related hedge items are accounted for under SFAS 133, *Accounting for Derivative Instruments and Hedging Activities* ("SFAS 133") and its related interpretations; and (c) how derivative instruments and related hedged items affect an entity's financial position, financial performance and cash flows. SFAS 161 must be applied prospectively to all derivative instruments and non-derivative instruments that are designated and qualify as hedging instruments and related hedged items accounted for under SFAS 133 for all financial statements issued for fiscal years and interim periods beginning after November 15, 2008. We do not expect adoption of SFAS 161 to have any impact on our financial position, results of operations or cash flows.

In April 2008, the FASB issued FASB Staff Position No. FAS 142-3, *Determination of the Useful Life of Intangible Assets* ("FSP 142-3"). FSP 142-3 amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under FASB Statement No. 142, *Goodwill and Other Intangible Assets* and requires enhanced disclosures relating to: (a) the entity's accounting policy on the treatment costs incurred to renew or extend the term of a recognized intangible asset; (b) in the period of acquisition or renewal, the weighted-average period prior to the next renewal or extension costs, the total amount of costs incurred in the period to renew or extend the term of a recognized intangible asset for each period for which a statement of financial position is presented by major intangible asset class. FSP 142-3 must be applied prospectively to all intangible assets acquired as of and subsequent to fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. Early adoption is prohibited. We do not expect adoption of FASP 142-3 to have any impact on our financial position, results of operations or cash flows.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

In November 2007, the EITF issued EITF Issue No. 07-1, *Accounting for Collaborative Arrangements Related to the Development and Commercialization of Intellectual Property* ("EITF 07-1"). Companies may enter into arrangements with other companies to jointly develop, manufacture, distribute, and market a product. Often the activities associated with these arrangements are conducted by the collaborators without the creation of a separate legal entity (that is, the arrangement is operated as a "virtual joint venture"). The arrangements generally provide that the collaborators will share, based on contractually defined calculations, the profits or losses from the associated activities. Periodically, the collaborators share financial information related to product revenues generated (if any) and costs incurred that may trigger a sharing payment for the combined profits or losses. The consensus requires collaborators in such an arrangement to present the result of activities for which they act as the principal on a gross basis and report any payments received from (made to) other collaborators based on other applicable GAAP or, in the absence of other applicable GAAP, based on analogy to authoritative accounting literature or a reasonable, rational, and consistently applied accounting policy election. EITF 07-1 is effective for collaborative arrangements in place at the beginning of the annual period beginning after December 15, 2008. The adoption of EITF 07-1 did not have a material impact on the Company's financial position and results of operations.

2. Cash, Cash Equivalents and Marketable Securities

The following is a summary of our cash, cash equivalents and marketable securities at December 31, 2008 and 2007 (in thousands):

	2008				2007			
Classified as:	**Amortized Cost**	**Gross Unrealized Gain**	**Gross Unrealized (Loss)**	**Fair Value**	**Amortized Cost**	**Gross Unrealized Gain**	**Gross Unrealized (Loss)**	**Fair Value**
Cash	$ 1,099	$ —	$ —	$1,099	$ 2,013	$ —	$ —	$ 2,013
Cash equivalents:								
Money market funds	3,573	—	—	3,573	23,601	—	—	23,601
Total cash and cash equivalents	4,672	—	—	4,672	25,614	—	—	25,614
Marketable securities:								
Securities of the U.S. government and its agencies	—	—	—	—	4,401	1	—	4,402
Total cash, cash equivalents and marketable securities	$ 4,672	$ —	$ —	$4,672	$ 30,015	$ 1	$ —	$30,016
Securities available-for-sale:								
Maturing within 1 year	$ —			$ —	$ 4,401			$ 4,402
Maturing between 1 to 2 years	$ —			$ —	$ —			$ —

There were no material gross realized gains or losses on sales of marketable securities for the years ended December 31, 2008, 2007 and 2006.

3. Property and Equipment

Property and equipment consisted of the following at December 31, 2008 and 2007 (in thousands):

	2008	2007
Furniture and office equipment	$ 397	$ 402
Leasehold improvements	489	489
Laboratory equipment	687	686
Computer equipment	1,010	940
	2,583	2,517
Less accumulated depreciation and amortization	(2,308)	(2,129)
Property and equipment, net	$ 275	$ 388

Depreciation and amortization expense was $213,000, $288,000, and $389,000 for the years ended December 31, 2008, 2007, and 2006, respectively.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

4. Research and License Agreements

We have entered into various agreements with research institutions, universities, clinical research organizations and other entities for the performance of research and development activities and for the acquisition of licenses related to those activities. Expenses under these agreements totaled approximately $239,000, $378,000, and $690,000 in the years ended December 31, 2008, 2007, and 2006, respectively.

At December 31, 2008, the annual aggregate commitments we have under these agreements, including minimum license payments, are as follows (in thousands):

2009	$ 74
2010	61
2011	5
2012	5
2013	5
	$150

After 2013, we must make annual payments aggregating approximately $5,000 per year to maintain certain licenses. Certain licenses provide for the payment of royalties by us on future product sales, if any. In addition, in order to maintain these licenses and other rights during product development, we must comply with various conditions including the payment of patent related costs and obtaining additional equity investments.

5. Agreement with Sanofi-Aventis SA

In 1997, we entered into an exclusive license agreement with Sanofi-Aventis SA (formerly Hoechst Marion Roussel, Inc.). The agreement gave us a worldwide license to the patent rights and know-how related to the antipsychotic agent iloperidone, including the ability to develop, use, sublicense, manufacture and sell products and processes claimed in the patent rights. We are required to make additional benchmark payments as specific milestones are met. Upon commercialization of the product, the license agreement provides that we will pay royalties based on net sales.

6. Iloperidone Sublicense to Novartis Pharma AG

We entered into an agreement with Novartis Pharma AG (“Novartis”) in 1997 pursuant to which we granted Novartis a sublicense for the worldwide (with the exception of Japan) development, manufacturing and marketing of iloperidone. In April 2001, we entered into an amendment to the agreement for the development and commercialization of iloperidone in Japan. Under the amendment, in exchange for rights to iloperidone in Japan, we received a $2.5 million license fee in May 2001. Novartis will make our milestone payments to Sanofi-Aventis during the life of the Novartis agreement, and will also pay to Sanofi-Aventis and us a royalty on future net sales of the product, providing us with a net royalty of 8% on the first $200 million of sales annually and 10% on all sales above $200 million on an annual basis. Novartis has assumed the responsibility for all clinical development, registration, manufacturing and marketing of iloperidone, and we have no remaining obligations under the terms of this agreement, except for maintaining certain usual and customary requirements, such as confidentiality covenants.

In June 2004, we announced that Vanda Pharmaceuticals, Inc. (“Vanda”) had acquired from Novartis the worldwide rights to develop and commercialize iloperidone, our proprietary antipsychotic agent in Phase III clinical development for the treatment of schizophrenia and related psychotic disorders. Under its agreement with Novartis, Vanda is pursuing advancement of the iloperidone development program. All of our rights and economic interests in iloperidone, including royalties on sales of iloperidone, remain essentially unchanged under the agreement.

7. Licensing and Collaborative Agreement with Bayer Schering Pharma AG

In January 2000, we entered into a licensing and collaborative agreement with Bayer Schering Pharma AG (“Bayer Schering”), under which we collaborated with Bayer Schering on manufacturing and clinical development

of our cell therapy product, Spheramine®, for the treatment of Parkinson's disease. Under the agreement, we performed clinical development activities for which we received funding. As of December 31, 2008, we have recognized $2.8 million under this agreement. In February 2002, we announced that we received a $2.0 million milestone payment from Bayer Schering. The milestone payment followed Bayer Schering's decision in the first quarter 2002 to initiate larger, randomized clinical testing of Spheramine for the treatment of patients with advanced Parkinson's disease following the successful completion of our Phase I/II clinical study of Spheramine. As a result, we recognized $2.0 million in contract revenue in the first quarter of 2002. Bayer Schering fully funded, and managed in collaboration with us, all pilot and pivotal clinical studies, and manufacturing and development activities. We were entitled to receive up to an aggregate of $8 million over the life of the Bayer Schering agreement upon the achievement of specific milestones. We were also to receive a royalty on future net sales of the product. In September 2008, we were notified by Bayer Schering of the termination of the above license agreement.

8. DITPA Acquisition

On October 16, 2003, we announced the acquisition of a novel product in clinical testing for the treatment of congestive heart failure ("CHF"). The product in development, 3,5-diiodothyropropionic acid ("DITPA"), is an orally active analogue of thyroid hormone that has demonstrated in preclinical and clinical studies to date the ability to improve cardiac function, with no significant adverse effects. We acquired DITPA through the acquisition of Developmental Therapeutics, Inc. ("DTI"), a private company established to develop DITPA, and the exclusive licensee of recently issued U.S. patent and pending U.S. and international patent applications covering DITPA. We acquired DTI in a stock transaction for 1,187,500 shares of our common stock valued at approximately $3.6 million using the average market price of our common stock over the five-day trading period, including and prior to the date of the merger in accordance with generally accepted accounting principles. We also made a cash payment of $171,250 to the licensor of the technology. In the fourth quarter of 2003, the total acquisition cost of $3.9 million was reported as acquired research and development in the accompanying consolidated statements of operations. An additional payment of 712,500 shares of our common stock will be made only upon the achievement of positive pivotal study results or certain other substantial milestones within five years. In addition, a cash payment of $102,750 or, alternatively, an additional payment of 37,500 shares of our common stock, will be made to the licensor of the technology upon achievement of such study results or such other substantial milestones within five years. In October 2006, we discontinued further enrollment in our Phase II study of DITPA in CHF. In addition to the discontinuation of our Phase II clinical study in CHF, the Department of Veteran's Affairs has indicated that it will discontinue its Cooperative Studies Program Phase II study of DITPA in CHF patients. No specific milestones have been achieved related to this acquisition as of December 31, 2008 and no future payments of cash or shares of our stock are anticipated related to this acquisition.

9. Commitments and Contingencies

Lease Commitments

We lease facilities under operating leases that expire at various dates through June 2010. We also lease certain office equipment under operating leases that expire at various dates through March 2010. Rental expense was $578,000, $705,000, and $703,000 for years ended December 31, 2008, 2007, and 2006, respectively.

The following is a schedule of future minimum lease payments at December 31, 2008 (in thousands):

2009	$498
2010	268
2011	14
2012	—
2013	—
Thereafter	—
	$780

TITAN PHARMACEUTICALS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Legal Proceedings

In March 2005, Dr. Bernard Sabel initiated an appraisal proceeding in the Court of Chancery of the State of Delaware relating to the merger of our subsidiary ProNeura, Inc. into Titan. The complaint indicated that Mr. Sabel wanted the court to appraise the value of the 108,800 shares of the common stock of ProNeura owned by him. The complaint did not specify an amount that Mr. Sabel considered the fair value of the shares.

In July 2007, a complaint was filed in the United States District Court in and for the Middle District of Florida against, among others, Berlex, Inc., Schering AG, the Regents of the University of California and us alleging that a patient in the Spheramine Phase IIb clinical trial suffered certain physical effects and that she and her husband suffered emotional distress as a result of her participation in the trial. The complaint alleged breach of contract, product liability and fraud and deceit claims. The plaintiffs were seeking $5.2 million in damages, as well as punitive damages, costs and attorney's fees. The parties have settled this dispute and we are not required to make any payments in connection with the settlement. (See Note 15, Subsequent Events)

10. Guarantees and Indemnifications

As permitted under Delaware law and in accordance with our Bylaws, we indemnify our officers and directors for certain events or occurrences while the officer or director is or was serving at the Company's request in such capacity. The term of the indemnification period is for the officer's or director's lifetime. The maximum amount of potential future indemnification is unlimited; however, we have a director and officer insurance policy that limits our exposure and may enable us to recover a portion of any future amounts paid. We believe the fair value of these indemnification agreements is minimal. Accordingly, we have not recorded any liabilities for these agreements as of December 31, 2008.

In the normal course of business, we have commitments to make certain milestone payments to various clinical research organizations in connection with our clinical trial activities. Payments are contingent upon the achievement of specific milestones or events as defined in the agreements, and we have made appropriate accruals in our consolidated financial statements for those milestones that were achieved as of December 31, 2008. We also provide indemnifications of varying scope to our clinical research organizations and investigators against claims made by third parties arising from the use of our products and processes in clinical trials. Historically, costs related to these indemnification provisions were immaterial. We also maintain various liability insurance policies that limit our exposure. We are unable to estimate the maximum potential impact of these indemnification provisions on our future results of operations.

11. Stockholders' Equity

Common Stock

In December 2008, we terminated the Common Stock Purchase Agreement (the "Purchase Agreement"), with Azimuth Opportunity Ltd. ("Azimuth"). Under the agreement, we could have required Azimuth to purchase up to the lesser of (a) $25.0 million of our common stock, or (b) 7,805,887 shares of our common stock over the 24 month term of the Purchase Agreement, subject to certain limits and so long as specified conditions were met. Any sale of the shares would have been registered pursuant to the February 2007 shelf registration statement. In October 2007, we completed a sale of 486,746 shares of our common stock under the Purchase Agreement with Azimuth at a price of approximately $2.05 per share, for gross proceeds of approximately $1.0 million. Net proceeds were approximately $965,000. No draw downs were made under this facility during 2008.

On May 29, 2008, our shareholders approved a proposal to amendment to our Certificate of Incorporation to increase the number of authorized shares of common stock from 75,000,000 to 125,000,000.

In December 2007, we completed the sale of units consisting of 13,300,000 shares of our common stock and five-year warrants to purchase 6,650,000 shares of our common stock to certain institutional investors for gross proceeds of approximately $21.3 million. Net proceeds were approximately $19.9 million. The warrants have an exercise price of $2.00 per share. In January 2008, we filed a registration statement with the Securities and Exchange Commission covering the resale of the shares of common stock and shares of common stock underlying the warrants issued in the private placement.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

In March 2007, we terminated the Standby Equity Distribution Agreement with Cornell Capital Partners. Under the agreement, we could have required Cornell Capital Partners to purchase up to $35.0 million of our common stock over a two year period following the effective date of a registration statement covering the shares of the common stock to be sold to Cornell Capital Partners. In 2005, we completed a total of five draw downs under the Standby Equity Distribution Agreement selling a total of 3,050,435 shares of our common stock for gross proceeds of approximately $4.0 million. Net proceeds were approximately $3.8 million. No draw downs were made under this facility during 2006 and 2007.

In February 2007, we filed a shelf registration statement with the Securities and Exchange Commission to sell up to $50.0 million of common or preferred stock. Under this registration statement, shares may be sold periodically to provide additional funds for our operations. In April 2007, we entered into a stock purchase agreement with certain individual and institutional investors for the purchase and sale of 5,445,546 shares of our common stock under the shelf registration statement at a price of $2.02 per share. In May 2007, we completed the sale of such shares for gross proceeds of $11.0 million. Net proceeds were approximately $10.2 million.

In February 2004, we filed a shelf registration statement with the Securities and Exchange Commission to sell up to $50.0 million of common or preferred stock. Under this registration statement, shares may be sold periodically to provide additional funds for our operations. In March 2004, we completed a sale of 3,075,000 shares of our common stock offered under the registration statement at a price of $5.00 per share, for gross proceeds of approximately $15.4 million. Net proceeds were approximately $14.4 million. In March 2006, we completed a sale of 3,076,924 shares of our common stock offered under the registration statement at a price of $3.25 per share, for gross proceeds of approximately $10 million. Net proceeds were approximately $9.3 million. This registration statement expired in February 2007.

Shares Reserved for Future Issuance

As of December 31, 2008, shares of common stock reserved by us for future issuance consisted of the following (in thousands):

Stock options	6,513
Restricted stock awards	115
Shares issuable upon the exercise of warrants	6,650
	13,278

12. Stock Plans

In December 2008, as previously mentioned in Note 1, *Organization and Summary of Significant Accounting Policies*, we implemented an approximately 90% reduction in our workforce to lower operating expenses and preserve capital. As a result of the workforce reduction, options to purchase 1,933,653 shares of our common stock and 865,000 shares of our restricted stock held by our employees were cancelled.

In October 2008, an aggregate of 980,000 restricted shares were granted to our employees pursuant to our Amended and Restated 2002 Incentive Plan. A total of 450,000 of such restricted shares were granted to our executive officers. The shares granted to the executives vest in 24 equal monthly installments commencing one-year from the date of grant. The 530,000 restricted shares granted to all other employees vest as to one-third on the one year anniversary of the date of grant and the balance in 24 equal monthly installments commencing one year from the date of grant. All restricted share grants provide for the acceleration of the unvested shares in the event the employee's employment is terminated (other than for cause) within 12 months following a change in control of the Company.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

In October 2007, we granted to our President and Chief Executive Officer, upon his joining the Company and pursuant to his agreement with the Company, 10-year options to purchase 1,500,000 shares of common stock at an exercise price of $2.40 per share. The options vest monthly over a four-year period, subject to a requirement of at least 12 months of employment for the vesting of any options. Notwithstanding the foregoing, all unvested options will automatically become vested and exercisable immediately prior to the occurrence of a change of control. The options will expire on the tenth anniversary of the date of the Option Agreement. The Company received no consideration for the issuance of the options. The shares were issued pursuant to the exemption from registration contained in Section 4(2) of the Securities Act of 1933, as amended, and the regulations promulgated thereunder, because the shares were issued to a sophisticated individual who is a director and officer of the Company in a private transaction.

In August 2005, we adopted an amendment to the 2002 Stock Incentive Plan ("2002 Plan") to (i) permit the issuance of Shares of restricted stock and stock appreciation rights to participants under the 2002 Plan, and (ii) increase the number of Shares issuable pursuant to grants under the 2002 Plan from 2,000,000 to 3,000,000.

In July 2002, we adopted the 2002 Stock Incentive Plan ("2002 Plan"). The 2002 Plan assumed the options which remain available for grant under our option plans previously approved by stockholders. Under the 2002 Plan and predecessor plans, a total of 7.4 million shares of our common stock were authorized for issuance to employees, officers, directors, consultants, and advisers. Options granted under the 2002 Plan and predecessor plans may either be incentive stock options within the meaning of Section 422 of the Internal Revenue Code and/or options that do not qualify as incentive stock options; however, only employees are eligible to receive incentive stock options. Options granted under the option plans generally expire no later than ten years from the date of grant, except when the grantee is a 10% shareholder, in which case the maximum term is five years from the date of grant. Options generally vest at the rate of one fourth after one year from the date of grant and the remainder ratably over the subsequent three years, although options with different vesting terms are granted from time-to-time. Generally, the exercise price of any options granted under the 2002 Plan must be at least 100% of the fair market value of our common stock on the date of grant, except when the grantee is a 10% shareholder, in which case the exercise price shall be at least 110% of the fair market value of our common stock on the date of grant.

In July 2002, our board of directors elected to continue the option grant practice under our amended 1998 Option Plan, which provided for the automatic grant of non-qualified stock options ("Directors' Options") to our directors who are not 10% stockholders ("Eligible Directors"). Each Eligible Director will be granted an option to purchase 10,000 shares of common stock on the date that such person is first elected or appointed a director. Commencing on the day immediately following the later of (i) the 2000 annual stockholders meeting, or (ii) the first annual meeting of stockholders after their election to the Board, each Eligible Director will receive an automatic biennial (i.e. every two years) grant of an option to purchase 15,000 shares of common stock as long as such director is a member of the board of directors. In addition, each Eligible Director will receive an automatic annual grant of an option to purchase 5,000 shares of common stock for each committee of the Board on which they serve. The exercise price of the Director's Options shall be equal to the fair market value of our common stock on the date of grant. Commencing in 2005, the biennial grant of options to non-employee directors pursuant to our stockholder-approved stock option plans was increased from 15,000 options to 20,000 options. Commencing in 2008, the biennial grant of 20,000 options to directors will be replaced with an annual grant of 10,000 options to align the grants with the term of the directors.

In August 2001, we adopted the 2001 Employee Non-Qualified Stock Option Plan ("2001 NQ Plan") pursuant to which 1,750,000 shares of common stock were authorized for issuance for option grants to employees and consultants who are not officers or directors of Titan. Options granted under the option plans generally expire no later than ten years from the date of grant. Option vesting schedule and exercise price are determined at time of grant by the board of directors. Historically, the exercise prices of options granted under the 2001 NQ Plan were 100% of the fair market value of our common stock on the date of grant.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Activity under our stock plans, as well as non-plan activity, are summarized below (shares in thousands):

	Shares Available For Grant	Number of Options and Awards Outstanding	Weighted Average Exercise Price
Balance at December 31, 2005	2,266	6,499	$ 7.56
Options granted	(1,158)	1,158	$ 1.69
Options exercised	—	(314)	$ 1.98
Options cancelled	606	(753)	$ 4.68
Balance at December 31, 2006	1,714	6,590	$ 7.12
Increase in shares reserved	1,500	—	—
Options granted	(2,199)	2,199	$ 2.55
Options exercised	—	(74)	$ 1.79
Options cancelled	182	(291)	$ 4.87
Balance at December 31, 2007	1,197	8,424	$ 6.05
Options granted	(1,181)	1,181	$ 1.31
Options exercised	—	—	$ —
Options cancelled and expired	3,485	(3,092)	$ 3.77
Awards granted	(980)	980	$ 0.17
Awards cancelled	865	(865)	$ 0.17
Balance at December 31, 2008	3,386	6,628	$ 6.27

Our option plans allow for stock options issued as the result of a merger or consolidation of another entity, including the acquisition of minority interest of our subsidiaries, to be added to the maximum number of shares provided for in the plan (Substitute Options). Consequently, Substitute Options are not returned to the shares reserved under the plan when cancelled. During 2008, 2007 and 2006, the number of Substitute Options cancelled was immaterial.

Options for 6.3 million and 6.0 million shares were exercisable at December 31, 2008 and 2007, respectively. The options outstanding at December 31, 2008 have been segregated into four ranges for additional disclosure as follows (option shares in thousands):

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding	Weighted Average Remaining Life (Years)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
$0.08 - $2.04	1,646	3.66	$ 1.52	1,508	$ 1.51
$2.05 - $2.83	1,632	2.51	$ 2.44	1,570	$ 2.44
$2.86 - $8.77	1,670	1.62	$ 4.82	1,663	$ 4.82
$9.03 - $43.63	1,565	1.12	$ 16.83	1,565	$ 16.83
$0.08 - $43.63	6,513	2.23	$ 6.27	6,306	$ 6.42

In addition, Ingenex has a stock option plan under which options to purchase common stock of Ingenex have and may be granted. No options have been granted under such plan since 1997.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

We use the Black-Scholes-Merton option-pricing model with the following assumptions to estimate the share-based compensation expense for the years ended December 31, 2008, 2007, and 2006:

	Years Ended December 31,		
	2008	2007	2006
Weighted-average risk-free interest rate	2.9%	3.9%	4.8%
Expected dividend payments	—	—	—
Expected holding period (years)(1)	5.4	6.1	5.8
Weighted-average volatility factor	0.66	0.78	0.64
Estimated forfeiture rates for options granted to management(2)	2%	2%	2%
Estimated forfeiture rates for options granted to non-management(2)	30%	29%	31%

(1) For 2006 and 2007 the expected holding period was based on the simplified method provided in Staff Accounting Bulletin No. 107 for "plain vanilla options."
(2) Estimated forfeiture rates are based on historical data.

Based upon the above methodology, the weighted-average fair value of options granted during the years ended December 31, 2008, 2007, and 2006 was $0.76, $1.79, and $1.06, respectively.

The following table summarizes the SFAS 123R share-based compensation expense and impact on our basic and diluted loss per share for the years ended December 31, 2008, 2007, and 2006 due to the adoption of SFAS 123R:

	Years Ended December 31,		
(in thousands, except per share amounts)	2008	2007	2006
Research and development	$ 374	$ 391	$ 354
General and administrative	1,533	999	519
Total share-based compensation expenses	$1,907	$1,390	$ 873
Increase in basic and diluted net loss per share	$ (0.03)	$ (0.03)	$(0.03)

No tax benefit was recognized related to share-based compensation expense since we have incurred operating losses and we have established a full valuation allowance to offset all the potential tax benefits associated with our deferred tax assets.

During the year ended December 31, 2008 we granted 1,180,727 options to employees, directors and consultants to purchase common stocks. The following table summarizes option activity for the year ended December 31, 2008:

(in thousands, except per share amounts)	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at January 1, 2008	8,424	$ 6.05		
Granted	1,181	1.31		
Exercised	—	—		
Cancelled	(3,092)	3.77		
Outstanding at December 31, 2008	6,513	$ 6.27	2.23	$ —
Options exercisable at December 31, 2008	6,306	$ 6.42	2.14	$ —

TITAN PHARMACEUTICALS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

As of December 31, 2008 there was approximately $2,088,731 of total unrecognized compensation expense related to non-vested stock options. This expense is expected to be recognized over a weighted-average period of 1.0 year.

During the year ended December 31, 2008 we awarded 980,000 shares of restricted stock to employees. The following table summarizes restricted stock activity for the year ended December 31, 2008:

(in thousands, except per share amounts)	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at January 1, 2008	—	$ —		
Granted	980	0.17		
Exercised	—	—		
Cancelled	(865)	0.17		
Outstanding at December 31, 2008	115	$ 0.17	1.94	$ —
Awards exercisable at December 31, 2008	—	$ —	—	$ —

As of December 31, 2008 there was approximately $19,000 of total unrecognized compensation expense related to non-vested awards. This expense is expected to be recognized over a weighted-average period of 1.9 years.

13. Minority Interest

The $1.2 million received by Ingenex upon the issuance of its Series B convertible preferred stock has been classified as minority interest in the accompanying consolidated balance sheets. As a result of the Series B preferred stockholders' liquidation preference, the balance has not been reduced by any portion of the losses of Ingenex.

Amounts invested by outside investors in the common stock of the consolidated subsidiaries have been apportioned between minority interest and additional paid-in capital in the accompanying consolidated balance sheets. Losses applicable to the minority interest holdings of the subsidiaries' common stock have been reduced to zero.

14. Income Taxes

As of December 31, 2008, we had net operating loss carryforwards for federal income tax purposes of approximately $231.9 million that expire at various dates through 2028, and federal research and development tax credits of approximately $7.3 million that expire at various dates through 2028. We also had net operating loss carryforwards for California income tax purposes of approximately $110.2 million that expire at various dates through 2018 and state research and development tax credits of approximately $6.5 million which do not expire. Approximately $12.4 million of federal and state net operating loss carryforwards represent stock option deductions arising from activity under the Company's stock option plan, the benefit of which will increase additional paid in capital when realized.

Current federal and California tax laws include substantial restrictions on the utilization of net operating losses and tax credits in the event of an ownership change of a corporation. The Company has not performed a change in ownership analysis since 1999 and, accordingly, some or all of its net operating loss and tax credit carryforwards may not be available to offset future taxable income, if any. Even if the carryforwards are available they may be subject to annual limitations that could result in the expiration of carryforwards before they are utilized.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of our deferred tax assets are as follows (in thousands):

	December 31,	
	2008	2007
Deferred tax assets:		
Net operating loss carryforwards	$ 85,263	$ 81,579
Research credit carryforwards	11,582	10,606
Other, net	5,796	6,438
Total deferred tax assets	102,641	98,623
Valuation allowance	(102,641)	(98,623)
Net deferred tax assets	$ —	$ —

Realization of deferred tax assets is dependent upon future earnings, if any, the timing and amount of which are uncertain. Accordingly, the net deferred tax assets have been fully offset by a valuation allowance. The valuation allowance increased by $4.0 million, $6.9 million, and $2.7 million during 2008, 2007, and 2006, respectively.

Under SFAS 123R, the deferred tax asset for net operating losses as of December 31, 2008 excludes deductions for excess tax benefits related to stock based compensation.

The provision for income taxes consists of state minimum taxes due. The effective tax rate of the Company's provision (benefit) for income taxes differs from the federal statutory rate as follows (in thousands):

	Year Ending December 31,	
	2008	2007
Computed at 34%	$ (8,646)	$ (5,998)
State Taxes	(551)	(1,017)
Book losses not currently benefited	8,330	6,903
Other	867	117
Total	$ —	$ 5

In July 2006, the FASB issued Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* ("FIN 48"). FIN 48 prescribes the minimum recognition threshold a tax position is required to meet before being recognized in the financial statements. FIN 48 also requires additional disclosure of the beginning and ending unrecognized tax benefits and details regarding the uncertainties that may cause the unrecognized benefits to increase or decrease within a twelve month period.

We adopted the provisions of FIN 48 on January 1, 2007. There was no impact on our consolidated financial position, results of operations and cash flows as a result of adoption. We had no unrecognized tax benefits as of December 31, 2008, including no accrued amounts for interest and penalties.

Our policy will be to recognize interest and penalties related to income taxes as a component of income tax expense. We do not anticipate that total unrecognized tax benefits will significantly change prior to December 31, 2009.

We file income tax returns in the U.S. Federal jurisdiction and some state jurisdictions. We are subject to the U.S. Federal and State income tax examination by tax authorities for such years 1992 through 2008, due to net operating losses that are being carried forward for tax purposes.

15. Subsequent Events

In March 2009, as a result of the workforce reduction implemented in December 2008, options to purchase 870,078 shares of our common stock were cancelled.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

In March 2009, we settled our dispute with Dr. Sabel related to the merger of our subsidiary ProNeura, Inc. into Titan. In April 2009, under the terms of the settlement, we paid $600,000 to Dr. Sabel.

In March 2009, we terminated our license to the DITPA technology.

In April 2009, the employment of our acting President and Chief Financial Officer was terminated.

In May 2009, iloperidone (Fanapt) was approved by the FDA for the treatment of schizophrenia. In October 2009, Novartis Pharma, acquired from Vanda Pharmaceuticals the rights to commercialize Fanapt in the U.S. and Canada, subject to approval under the Hart Scott Rodino Act. We will be entitled to a net royalty of 8% on the first $200 million of sales annually and 10% on all sales above $200 million on an annual basis.

In May 2009, we rehired three former employees to serve as our Executive Chairman, President, and Senior Vice President of Clinical Development and Medical Affairs.

The Executive Chairman was granted options to purchase 1,000,000 shares of our stock. Of those options, 250,000 options vested on the date of grant and the remaining 750,000 will vest monthly over a period of 48 months from the date of grant. All unvested options automatically will become vested and exercisable immediately prior to the occurrence of a change of control. The Executive Chairman has agreed to receive no annual salary until the earlier of our receipt of iloperidone royalty revenues or February 28, 2010.

The President was granted options to purchase 700,000 shares of our stock. Of those options, 175,000 vested on the date of grant and the remaining 525,000 will vest monthly over a period of 48 months from the date of grant, provided; however, the vesting of 100,000 shares will also be contingent upon the Company's sale or partnering of the Probuphine program. All unvested options automatically will become vested and exercisable immediately prior to the occurrence of a change of control. Payment of all the officer's salary will be deferred until the receipt of iloperidone royalty payments or other financing that by its terms does not restrict such use, but in no event earlier than January 1, 2010 or later than March 15, 2010. After January 1, 2010 and no later than March 15, 2010, the officer will be entitled to receive a deferred salary payment of no greater than approximately $167,000.

The Senior Vice President of Clinical Development and Medical Affairs was granted options to purchase 250,000 shares of our stock. Of those options, 62,500 vested on the date of grant and the remaining 187,500 will vest monthly over a period of 48 months from the date of grant, provided; however, that the vesting of 50,000 shares will also be contingent upon the Company's receipt of a grant from the National Institute of Health's National Institute on Drug Abuse ("NIDA") and the vesting of an additional 50,000 shares will also be contingent upon the Company's sale or partnering of the Probuphine program. All unvested options automatically will become vested and exercisable immediately prior to the occurrence of a change of control. Payment of a portion of the employee's salary will be deferred until the receipt of iloperidone royalty payments or other financing that by its terms does not restrict such use, but in no event later than March 15, 2010. No later than March 15, 2010, the employee will be entitled to receive a deferred salary payment of no greater than approximately $100,000.

In September 2009, we were awarded a $7.6 million grant by the National Institute of Health ("NIH") in partial support of a second controlled Phase 3 study of our Probuphine product for the treatment of opioid dependence. We will require significant further capital expenditures to support this and other clinical studies, manufacturing development, testing, and regulatory clearances prior to commercialization.

In September and October 2009, members of our board of directors exercised options to purchase 659,862 shares of our common stock at prices ranging from $0.79 to $1.40 per share. Net proceeds were approximately $555,000.

In December 2009, we completed the sale of 300,000 shares of our common stock to an institutional investor for gross proceeds of approximately $510,000. Net proceeds were approximately $478,000.

In December 2009, we entered into a financing agreement with Oxford Capital Financing ("Oxford") pursuant to which we received a three-year term loan in the principal amount of $3,000,000 that bears interest at the rate of 13% per annum. We paid Oxford an initial facility fee of $60,000 and are obligated to make a final payment fee of $180,000. The loan is secured by our assets and has a provision for pre-payment. Oxford received five-year warrants to purchase 42,254 shares of our common stock at an exercise price of $2.13 per share.

TITAN PHARMACEUTICALS, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS

(in thousands)

	September 30, 2009 (unaudited)	December 31, 2008 (Note A)
Assets		
Current assets		
Cash and cash equivalents	$ 725	$ 4,672
Prepaid expenses, other receivables and current assets	525	721
Total current assets	1,250	5,393
Property and equipment, net	143	275
Total assets	$ 1,393	$ 5,668
Liabilities and Stockholders' Equity (Deficit)		
Current liabilities		
Accounts payable	$ 448	$ 493
Accrued clinical trials expenses	174	910
Other accrued liabilities	446	1,231
Total liabilities	1,068	2,634
Commitments and contingencies		
Stockholders' equity (deficit)		
Common stock, at amounts paid-in	255,878	255,403
Additional paid-in capital	14,335	13,415
Accumulated deficit	(271,129)	(267,025)
Accumulated other comprehensive income	—	—
Total Titan Pharmaceuticals, Inc. stockholders' equity (deficit)	(916)	1,793
Non-controlling interest in Series B preferred stock of Ingenex, Inc.	1,241	1,241
Total stockholders' equity (deficit)	325	3,034
Total liabilities and stockholders' equity (deficit)	$ 1,393	$ 5,668

Note A: The year end consolidated balance sheet data was derived from audited financial statements, but does not include all disclosures required by accounting principles generally accepted in the United States of America.

See accompanying notes to condensed consolidated financial statements

TITAN PHARMACEUTICALS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(unaudited)
(in thousands, except per share amount)

	Nine Months Ended September 30,	
	2009	2008
License revenue	$ 53	$ 73
Operating expenses:		
Research and development	1,707	12,810
General and administrative	2,443	7,086
Total operating expenses	4,150	19,896
Loss from operations	(4,097)	(19,823)
Other income:		
Interest income, net	2	442
Other income (expense)	(9)	74
Other income (expense), net	(7)	516
Net loss	$ (4,104)	$(19,307)
Basic and diluted net loss per share	$ (0.07)	$ (0.33)
Weighted average shares used in computing basic and diluted net loss per share	58,291	58,284

See accompanying notes to condensed consolidated financial statements

TITAN PHARMACEUTICALS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)
(in thousands)

	Nine Months Ended September 30,	
	2009	**2008**
Cash flows from operating activities:		
Net loss	$(4,104)	$(19,307)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	136	163
Loss on disposal of assets	3	—
Gain on sale of investments	—	(120)
Stock-based compensation	920	1,687
Changes in operating assets and liabilities:		
Prepaid expenses, receivables and other assets	196	(526)
Accounts payable and other accrued liabilities	(1,566)	299
Net cash used in operating activities	(4,415)	(17,804)
Cash flows from investing activities:		
Purchases of furniture and equipment	(9)	(122)
Disposals of furniture and equipment	2	21
Proceeds from maturities of marketable securities	—	4,401
Sale of investment in other companies	—	120
Net cash provided by (used in) investing activities	(7)	4,420
Cash flows from financing activities:		
Issuance of common stock, net	475	(26)
Net cash provided by (used in) financing activities	475	(26)
Net decrease in cash and cash equivalents	(3,947)	(13,410)
Cash and cash equivalents at beginning of period	4,672	25,614
Cash and cash equivalents at end of period	$ 725	$ 12,204

See accompanying notes to condensed consolidated financial statements

TITAN PHARMACEUTICALS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

1. Organization and Summary of Significant Accounting Policies

The Company

We are a biopharmaceutical company developing proprietary therapeutics primarily for the treatment of central nervous system (CNS) disorders. Our product development programs focus primarily on large pharmaceutical markets with significant unmet medical needs and commercial potential. We are directly developing our product candidates and also utilizing corporate partnerships. These collaborations have helped to fund product development and have enabled us to retain significant economic interest in our products. At September 30, 2009, we owned 81% of Ingenex, Inc. assuming the conversion of all preferred stock to common stock. We operate in only one business segment, the development of pharmaceutical products.

In May 2009, iloperidone (Fanapt) was approved by the FDA for the treatment of schizophrenia. In October 2009, Novartis Pharma, acquired from Vanda Pharmaceuticals the rights to commercialize Fanapt in the U.S. and Canada, subject to approval under the Hart Scott Rodino Act. We will be entitled to a net royalty of 8% on the first $200 million of sales annually and 10% on all sales above $200 million on an annual basis.

In September 2009, we were awarded a $7.6 million grant by the National Institute of Health (“NIH”) in partial support of a second controlled Phase 3 study of our Probuphine product for the treatment of opioid dependence. We will require significant further capital expenditures to support this and other clinical studies, manufacturing development, testing, and regulatory clearances prior to commercialization.

In accordance with Accounting Standards Codification (“ASC”) 855, Subsequent Events, we have evaluated subsequent events through January 13, 2010, the date of the issuance of the unaudited condensed consolidated financial statements.

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements include the accounts of Titan Pharmaceuticals, Inc. and its subsidiaries after elimination of all significant intercompany accounts and transactions. Certain prior period balances have been reclassified to conform to the current period presentation. These financial statements have been prepared in accordance with U.S. generally accepted accounting principles for interim financial information and with the instructions to Form 10 and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by U.S. generally accepted accounting principles for a complete financial statement presentation. In the opinion of management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation have been included. Operating results for the nine-month period ended September 30, 2009 are not necessarily indicative of the results that may be expected for the year ending December 31, 2009, or any future interim periods.

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

These unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements for the year ended December 31, 2008 and footnotes thereto included in this Form 10.

We will continue to incur substantial additional operating losses from costs related to the continuation of product and technology development, clinical trials, and administrative activities. We believe that our working capital at September 30, 2009, together with the funds obtained through the sale of equity and receipt of a loan in December 2009 and proceeds from the NIH grant, is sufficient to sustain our planned operations through September 2010, at which time we expect to be generating royalty revenues from sales of Fanapt.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
(unaudited)

Majority-Owned Subsidiary

At September 30, 2009, we owned 81% of Ingenex (assuming the conversion of all preferred stock to common stock).

Revenue Recognition

We generate revenue principally from collaborative research and development arrangements, technology licenses, and government grants. Revenue arrangements with multiple components are divided into separate units of accounting if certain criteria are met, including whether the delivered component has stand-alone value to the customer, and whether there is objective and reliable evidence of the fair value of the undelivered items. Consideration received is allocated among the separate units of accounting based on their respective fair values, and the applicable revenue recognition criteria are then applied to each of the units.

Revenue is recognized when the four basic criteria of revenue recognition are met: (1) a contractual agreement exists; (2) transfer of technology has been completed or services have been rendered; (3) the fee is fixed or determinable; and (4) collectibility is reasonably assured. For each source of revenue, we comply with the above revenue recognition criteria in the following manner:

- Collaborative arrangements typically consist of non-refundable and/or exclusive technology access fees, cost reimbursements for specific research and development spending, and various milestone and future product royalty payments. If the delivered technology does not have stand-alone value or if we do not have objective or reliable evidence of the fair value of the undelivered component, the amount of revenue allocable to the delivered technology is deferred. Non-refundable upfront fees with stand-alone value that are not dependent on future performance under these agreements are recognized as revenue when received, and are deferred if we have continuing performance obligations and have no evidence of fair value of those obligations. Cost reimbursements for research and development spending are recognized when the related costs are incurred and when collections are reasonably expected. Payments received related to substantive, performance-based "at-risk" milestones are recognized as revenue upon achievement of the clinical success or regulatory event specified in the underlying contracts, which represent the culmination of the earnings process. Amounts received in advance are recorded as deferred revenue until the technology is transferred, costs are incurred, or milestone is reached.
- Technology license agreements typically consist of non-refundable upfront license fees, annual minimum access fees or royalty payments. Non-refundable upfront license fees and annual minimum payments received with separable stand-alone values are recognized when the technology is transferred or accessed, provided that the technology transferred or accessed is not dependent on the outcome of our continuing research and development efforts.
- Government grants, which support our research efforts in specific projects, generally provide for reimbursement of approved costs as defined in the notices of grants. Grant revenue is recognized when associated project costs are incurred.

Research and Development Costs and Related Accrual

Research and development expenses include internal and external costs. Internal costs include salaries and employment related expenses, facility costs, administrative expenses and allocations of corporate costs. External expenses consist of costs associated with outsourced clinical research organization activities, sponsored research studies, product registration, patent application and prosecution, and investigator sponsored trials. In accordance with SFAS No. 2, *Accounting for Research and Development Costs*, all such costs are charged to expense as incurred. We also record accruals for estimated ongoing clinical trial costs. Clinical trial costs represent costs incurred by clinical research organizations, ("CROs"), and clinical sites. These costs are recorded as a component of research and development expenses. Under our agreements, progress payments are typically made to investigators, clinical sites and CROs. We analyze the progress of the clinical trials, including levels of patient enrollment, invoices received and contracted costs when evaluating the adequacy of accrued liabilities. Significant judgments and estimates must be made and used in determining the accrued balance in any accounting period. Actual results could differ from those estimates under different assumptions. Revisions are charged to expense in the period in which the facts that give rise to the revision become known.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
(unaudited)

Recent Accounting Pronouncements

In June 2009, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards ("SFAS") Statement No. 168, *The FASB Accounting Standards Codification*™ ("ASC"). The FASB notes that the ASC will become the source of authoritative U.S. generally accepted accounting principles ("GAAP") recognized by the FASB to be applied by nongovernmental entities. All of the ASC content will carry the same level of authority, effectively superseding Statement No. 162. The GAAP hierarchy will be modified to include only two levels of GAAP: authoritative and non-authoritative. The ASC is effective for financial statements issued for interim and annual periods ending after September 15, 2009. The Company does not expect the adoption of SFAS 168 to have an impact on its consolidated financial position or results of operations.

In May 2009, the FASB issued an accounting standard codified in ASC 855, *Subsequent Events* (formerly SFAS No. 165) which provides guidance on management's assessment of subsequent events. ASC 855 represents the inclusion of guidance on subsequent events in the accounting literature and is directed specifically to management, since management is responsible for preparing an entity's financial statements. ASC 855 is not expected to significantly change practice because it includes guidance which is similar to that in AU Section 560, with some important modifications. The new standard clarifies that management must evaluate, as of each reporting period, events or transactions that occur after the balance sheet date through the date that the financial statements are issued or are available to be issued. Management must perform its assessment for both interim and annual financial reporting periods. The Company adoption of ASC 855 did not have a material impact on the Company's consolidated financial position or results of operations.

In April 2009, the FASB issued an accounting standard codified in ASC 320, *Investments-Debt and Equity Securities* (formerly FASB Staff Position (FSP) 115-2 and FSP 124-2). ASC 320 provides greater clarity to investors about the credit and noncredit component of an other-than-temporary impairment event and to more effectively communicate when an other-than-temporary impairment event has occurred. ASC 320 applies to fixed maturity securities only and requires separate display of losses related to credit deterioration and losses related to other market factors. When an entity does not intend to sell the security and it is more likely than not that an entity will not have to sell the security before recovery of its cost basis, it must recognize the credit component of an other-than-temporary impairment in earnings and the remaining portion in other comprehensive income. In addition, upon adoption of ASC 320, an entity will be required to record a cumulative-effect adjustment as of the beginning of the period of adoption to reclassify the noncredit component of a previously recognized other-than-temporary impairment from retained earnings to accumulated other comprehensive income. ASC 320 is effective for the Company for the quarter ended June 30, 2009. The adoption of ASC 320 did not have a material impact on the Company's consolidated financial position or results of operations.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
(unaudited)

In April 2009, the FASB issued an accounting standard codified in ASC 820, *Fair Value Measurements and Disclosures* (formerly FSP 157-4). ASC 820 provides additional authoritative guidance to assist both issuers and users of financial statements in determining whether a market is active or inactive, and whether a transaction is distressed. ASC 820 is effective for the Company for the quarter ended June 30, 2009. The adoption of ASC 820 did not have a material impact on the Company's consolidated financial position or results of operations.

In April 2009, the FASB issued an accounting standard codified in ASC 825, *Financial Instruments* (formerly FSP 107-1 and APB 28-1). ASC 825 requires disclosures about fair value of financial instruments for interim reporting periods of publicly traded companies as well as in annual financial statements. ASC 825 is effective for the Company for the quarter ended June 30, 2009. The adoption of ASC 825 did not have an impact on the Company's consolidated financial position or results of operations.

2. Stock Plans

In March 2009, as a result of the workforce reduction implemented in December 2008, options to purchase 870,078 shares of our common stock were cancelled.

In May 2009, we rehired three former employees to serve as our Executive Chairman, President, and Senior Vice President of Clinical Development and Medical Affairs.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
(unaudited)

The Executive Chairman was granted options to purchase 1,000,000 shares of our stock. Of those options, 250,000 options vested on the date of grant and the remaining 750,000 will vest monthly over a period of 48 months from the date of grant. All unvested options automatically will become vested and exercisable immediately prior to the occurrence of a change of control. The Executive Chairman has agreed to receive no annual salary until the earlier of our receipt of iloperidone royalty revenues or February 28, 2010.

The President was granted options to purchase 700,000 shares of our stock. Of those options, 175,000 vested on the date of grant and the remaining 525,000 will vest monthly over a period of 48 months from the date of grant, provided; however, the vesting of 100,000 shares will also be contingent upon the Company's sale or partnering of the Probuphine program. All unvested options automatically will become vested and exercisable immediately prior to the occurrence of a change of control. Payment of all the officer's salary will be deferred until the receipt of iloperidone royalty payments or other financing that by its terms does not restrict such use, but in no event earlier than January 1, 2010 or later than March 15, 2010. After January 1, 2010 and no later than March 15, 2010, the officer will be entitled to receive a deferred salary payment of no greater than approximately $167,000.

The Senior Vice President of Clinical Development and Medical Affairs was granted options to purchase 250,000 shares of our stock. Of those options, 62,500 vested on the date of grant and the remaining 187,500 will vest monthly over a period of 48 months from the date of grant, provided; however, that the vesting of 50,000 shares will also be contingent upon the Company's receipt of a grant from the National Institute of Health's National Institute on Drug Abuse ("NIDA") and the vesting of an additional 50,000 shares will also be contingent upon the Company's sale or partnering of the Probuphine program. All unvested options automatically will become vested and exercisable immediately prior to the occurrence of a change of control. Payment of a portion of the employee's salary will be deferred until the receipt of iloperidone royalty payments or other financing that by its terms does not restrict such use, but in no event later than March 15, 2010. No later than March 15, 2010, the employee will be entitled to receive a deferred salary payment of no greater than approximately $100,000.

The following table summarizes the SFAS 123R share-based compensation expense recorded for awards under the stock option plans and the resulting impact on our basic and diluted loss per share for the three and nine month periods ended September 30, 2009 and 2008:

	Nine Months Ended September 30,	
(in thousands, except per share amounts)	2009	2008
Research and development	$ 131	$ 305
General and administrative	789	1,382
Total share-based compensation expenses	$ 920	$ 1,687
Increase in basic and diluted net loss per share	$(0.02)	$ (0.03)

No tax benefit was recognized related to share-based compensation expense since we have incurred operating losses and we have established a full valuation allowance to offset all the potential tax benefits associated with our deferred tax assets.

We use the Black-Scholes-Merton option-pricing model with the following assumptions to estimate the share-based compensation expense for the three and nine month periods ended September 30, 2009 and 2008:

	Nine Months Ended September 30,	
	2009	2008
Weighted-average risk-free interest rate	0.4%	2.9%
Expected dividend payments	—	—
Expected holding period (years)[1]	4.6	5.4
Weighted-average volatility factor	1.84	0.66
Estimated forfeiture rates for options granted to management[2]	21%	2%
Estimated forfeiture rates for options granted to non-management[2]	41%	30%

[1] For the nine months ended September 30, 2009 and 2008, we used historical data to estimate the expected holding period.
[2] Estimated forfeiture rates are based on historical data.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
(unaudited)

During the nine month period ended September 30, 2009, we granted 3,475,000 options to employees, directors and consultants to purchase common stock. The following table summarizes option activity for the nine month period ended September 30, 2009:

(in thousands, except per share amounts)	Options	Weighted Average Exercise Price	Weighted Average Remaining Option Term	Aggregate Intrinsic Value
Outstanding at January 1, 2009	6,513	$ 6.27	2.23	$ —
Granted	3,475	0.86		
Exercised	(560)	0.85		
Expired or cancelled	(2,631)	4.99		
Outstanding at September 30, 2009	6,797	$ 4.45	5.81	$ 1,503
Exercisable at September 30, 2009	4,856	$ 5.86	4.30	$ 580

As of September 30, 2009 there was approximately $867,000 of total unrecognized compensation expense related to non-vested stock options. This expense is expected to be recognized over a weighted-average period of 3.4 years.

During the nine months ended September 30, 2009, we awarded 15,000 shares of restricted stock to employees. The following table summarizes restricted stock activity for the nine months ended September 30, 2009:

(in thousands, except per share amounts)	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at January 1, 2009	115	$ 0.17	1.94	$ 2
Granted	15	1.04		
Exercised	—	—		
Cancelled	(110)	0.17		
Outstanding at September 30, 2009	20	$ 0.82	2.06	$ 28
Awards exercisable at September 30, 2009	15	$ —	—	$ 21

As of September 30, 2009 there was approximately $1,000 of total unrecognized compensation expense related to non-vested awards. This expense is expected to be recognized over a weighted-average period of 2.1 years.

3. Net Loss Per Share

We calculated net loss per share using the weighted average common shares outstanding for the periods presented. For the periods ended September 30, 2009 and 2008, the effect of an additional 13,467,320 and 16,132,387 shares, respectively, representing outstanding options and warrants, were not included in the computation of diluted earnings per share because they are anti-dilutive.

4. Comprehensive Loss

Comprehensive loss is comprised of net loss and other comprehensive income or loss. The only component of other comprehensive income or loss is unrealized gains and losses on our marketable securities. Comprehensive losses for the nine month periods ended September 30, 2009 and 2008 were $4.1 million and $19.3 million, respectively.

TITAN PHARMACEUTICALS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
(unaudited)

5. Commitments and Contingencies

Legal Proceedings

In March 2005, Dr. Bernard Sabel initiated an appraisal proceeding in the Court of Chancery of the State of Delaware relating to the merger of our subsidiary ProNeura, Inc. into Titan. The complaint indicated that Mr. Sabel wanted the court to appraise the value of the 108,800 shares of the common stock of ProNeura owned by him. The complaint did not specify an amount that Mr. Sabel considered the fair value of the shares. In March 2009, we settled our dispute with Dr. Sabel related to the merger of our subsidiary ProNeura, Inc. into Titan. In April 2009, under the terms of the settlement, we paid $600,000 to Dr. Sabel.

6. Stockholders' Equity

In September 2009, members of our board of directors exercised options to purchase 559,862 shares of our common stock at prices ranging from $0.79 to $1.40 per share. Net proceeds were approximately $476,000.

In December 2008, we terminated the Common Stock Purchase Agreement (the "Purchase Agreement"), with Azimuth Opportunity Ltd. ("Azimuth"). Under the agreement, we could have required Azimuth to purchase up to the lesser of (a) $25.0 million of our common stock, or (b) 7,805,887 shares of our common stock over the 24 month term of the Purchase Agreement, subject to certain limits and so long as specified conditions were met. Any sale of the shares would have been registered pursuant to the February 2007 shelf registration statement. In October 2007, we completed a sale of 486,746 shares of our common stock under the Purchase Agreement with Azimuth at a price of approximately $2.05 per share, for gross proceeds of approximately $1.0 million. Net proceeds were approximately $965,000. No draw downs were made under this facility during 2008.

On May 29, 2008, our shareholders approved a proposal to amend to our Certificate of Incorporation to increase the number of authorized shares of common stock from 75,000,000 to 125,000,000.

In December 2007, we completed the sale of units consisting of 13,300,000 shares of our common stock and five-year warrants to purchase 6,650,000 shares of our common stock to certain institutional investors for gross proceeds of approximately $21.3 million. Net proceeds were approximately $19.9 million. The warrants have an exercise price of $2.00 per share. In January 2008, we filed a registration statement with the Securities and Exchange Commission covering the resale of the shares of common stock and shares of common stock underlying the warrants issued in the private placement.

In February 2007, we filed a shelf registration statement with the Securities and Exchange Commission to sell up to $50 million of common or preferred stock. Under this registration statement, shares may be sold periodically to provide additional funds for our operations. In April 2007, we entered into a stock purchase agreement with certain individual and institutional investors for the purchase and sale of 5,445,546 shares of our common stock under the shelf registration statement at a price of $2.02 per share. In May 2007, we completed the sale of such shares for gross proceeds of $11.0 million. Net proceeds were approximately $10.2 million.

7. Subsequent Events

In October 2009, a member of our board of directors exercised options to purchase 100,000 shares of our common stock at price of $0.79 per share. Net proceeds were approximately $79,000.

In December 2009, we completed the sale of 300,000 shares of our common stock to an institutional investor for gross proceeds of approximately $510,000. Net proceeds were approximately $478,000.

In December 2009, we entered into a financing agreement with Oxford Capital Financing ("Oxford") pursuant to which we received a three-year term loan in the principal amount of $3,000,000 that bears interest at the

TITAN PHARMACEUTICALS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
(unaudited)

rate of 13% per annum. We paid Oxford an initial facility fee of $60,000 and are obligated to make a final payment fee of $180,000. The loan is secured by our assets and has a provision for pre-payment. Oxford received five-year warrants to purchase 42,254 shares of our common stock at an exercise price of $2.13 per share.

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SIGNATURES

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: January 13, 2010

TITAN PHARMACEUTICALS, INC.

By: /S/ SUNIL BHONSLE
Name: **Sunil Bhonsle**
Title: **President**

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EXHIBIT INDEX

No.	Description
3.1	Amended and Restated Certificate of Incorporation of the Registrant, as amended
3.2	By-laws of the Registrant[1]
4.1	Registration Rights Agreement dated as of December 17, 2007[2]
4.2	Registration Rights Agreement dated as of December 8, 2009
10.1	1998 Stock Option Plan[3]
10.2	2001 Non-Qualified Employee Stock Option Plan[4]
10.3	2002 Stock Option Plan[5]
10.4	Employment Agreement between the Registrant and Sunil Bhonsle, dated May 16, 2009
10.5	Employment Agreement between the Registrant and Marc Rubin, dated May 16, 2009
10.6	Lease for the Registrant's facilities, amended as of October 1, 2004[6]
10.7	Amendments to lease for Registrant's facilities dated May 21, 2007 and March 12, 2009
10.8	Sublease between the Registrant and Anesiva, Inc. dated March 27, 2009
10.9*	License Agreement between the Registrant and Sanofi-Aventis SA effective as of December 31, 1996[7]
10.10*	Sublicense Agreement between the Registrant and Novartis Pharma AG dated November 20, 1997[8]
10.11*	License Agreement between the Registrant and the Massachusetts Institute of Technology dated September 28, 1995[1]
10.12	Loan and Security Agreement between the Registrant and Oxford Finance Corporation dated December 18, 2009
23.1	Consent of Odenberg, Ullakko, Muranishi & Co., LLP, Independent Registered Public Accounting Firm

[1] Incorporated by reference from the Registrant's Registration Statement on Form SB-2 (File No. 33-99386).
[2] Incorporated by reference from the Registrant's Current Report on Form 8-K dated December 27, 2007.
[3] Incorporated by reference from the Registrant's definitive Proxy Statement filed on July 28, 2000.
[4] Incorporated by reference from the Registrant's Annual Report on Form 10-K for the year ended December 31, 2001.
[5] Incorporated by reference from the Registrant's Annual Report on Form 10-K for the year ended December 31, 2002.
[6] Incorporated by reference from the Registrant's Annual Report on Form 10-K for the year ended December 31, 2005.
[7] Incorporated by reference from the Registrant's Annual Report on Form 10-KSB for the year ended December 31, 1996.
[8] Incorporated by reference from the Registrant's Registration Statement on Form S-3 (File No. 333-42367).
* Confidential treatment has been granted with respect to portions of this exhibit.

Exhibit 3.1

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

OF

TITAN PHARMACEUTICALS, INC.

The undersigned Louis R. Bucalo and Sunil Bhonsle hereby certify that:

(i) They are the duly elected and acting President and Secretary, respectively, of the Corporation.

(ii) The Corporation was originally incorporated on February 7, 1992 under the name Scimark Corp.

(iii) Pursuant to Section 242 and Section 245 of the General Corporation Law of the State of Delaware, Titan Pharmaceuticals, Inc. has adopted this Amended and Restated Certificate of Incorporation, restating, integrating and further amending its Restated Certificate of Incorporation dated February 24, 1995, which Amended and Restated Certificate of Incorporation has been duly proposed by the directors and adopted by the stockholders of this Corporation (by written consent pursuant to Section 228 of said General Corporation Law) in accordance with the provisions of said 242 and Section 245.

FIRST: The name of the corporation is Titan Pharmaceuticals, Inc.

SECOND: The registered office of the Corporation is to be located at 1013 Centre Road, City of Wilmington, County of New Castle, 19805, State of Delaware. The name of its registered agent at that address is The Prentice-Hall Corporation System, Inc.

THIRD: The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of Delaware.

FOURTH: The total number of shares of all classes of stock which the Corporation shall be authorized to issue is Thirty Million (30,000,000) shares of Common Stock with a par value of $.001 per share and Five Million (5,000,000) shares of Preferred Stock with a par value of $.001 per share.

The Board of Directors may divide the Preferred Stock into any number of series, fix the designation and number of shares of each such series, and determine or change the designation, relative rights, preferences, and limitations of any series of Preferred Stock. The Board of Directors (within the limits and restrictions of any

resolutions adopted by it originally fixing the number of shares of any series of Preferred Stock) may increase or decrease the number of shares initially fixed for any series, but no such decrease shall reduce the number below the number of shares then outstanding and shares duly reserved for issuance.

FIFTH: The following provisions are inserted for the management of the business and for the conduct of the affairs of the Corporation, and for further definition, limitation and regulation of the powers of the Corporation and of its directors and stockholders:

(1) The election of directors need not be by written ballot, unless the by-laws so provide.

(2) The Board of Directors shall have power without the assent or vote of the stockholders to make, alter, amend, change, add to or repeal the By-Laws of the Corporation.

SIXTH: The Corporation shall indemnify and advance expenses to the fullest extent permitted by Section 145 of the General Corporation Law of Delaware, as amended from time to time, each person who is or was a director or officer of the Corporation and the heirs, executors and administrators of such a person.

SEVENTH: The personal liability of directors of the Corporation is hereby eliminated to the full extent permitted by Section 102(b)(7) of the General Corporation Law of the State of Delaware as the same may be amended and supplemented.

EIGHTH: The Corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation in the manner now or hereafter prescribed by law, and all rights and powers conferred herein on stockholders, directors and officers are subject to this reserved power.

IN WITNESS WHEREOF, the undersigned, being the President of the Corporation, hereunto sign my name and affirm that the statements made herein are true under the penalties of perjury, this 23rd day of January, 1996.

/s/ Louis R. Bucalo
Louis R. Bucalo, M.D.

Attest:

/s/ Sunil Bhonsle, Secretary
Sunil Bhonsle, Secretary

CERTIFICATE OF AMENDMENT

TO

THE RESTATED CERTIFICATE OF INCORPORATION

OF

TITAN PHARMACEUTICALS, INC.

It is hereby certified as follows:

FIRST: The name of the corporation is Titan Pharmaceuticals, Inc. (the "Corporation").

SECOND: The Corporation hereby amends its Certificate of Incorporation (as amended and restated on January 23, 1996) to increase its authorized capital stock, by deleting the first paragraph of Article FOURTH in its entirety and inserting a new paragraph instead, to read as follows;

FOURTH: The total number of shares of all classes of stock which the Corporation shall be authorized to issue is Fifty-Five Million (55,000,000) shares, of which Fifty Million (50,000,000) shall be designated Common Stock with a par value of $.001 per share, and Five Million (5,000,000) shall be designated Preferred Stock with a par value of $.001 per share.

THIRD: This amendment has been duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, the Corporation has caused this Certificate to be subscribed by its President, this 31st day of July, 1997.

TITAN PHARMACEUTICALS, INC.

/s/ Louis R. Bucalo
Louis R. Bucalo, President

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 09:01 AM 08/21/1997
971280903 - 2287466

CERTIFICATE OF AMENDMENT
OF
CERTIFICATE OF INCORPORATION
OF
TITAN PHARMACEUTICALS, INC.

It is hereby certified as follows:

FIRST: The name of the corporation is: Titan Pharmaceuticals, Inc. (the "Corporation").

SECOND: The certificate of incorporation of the Corporation was filed with the Secretary of State of the State of Delaware on February 7, 1992 (the "Certificate of Incorporation").

THIRD: The Certificate of Incorporation is hereby amended by striking Article FOURTH thereof in its entirely and substituting in lieu thereof a new Article FOURTH, which shall read in its entirety as follows:

> "**FOURTH**: The total number of shares of all classes of stock which the Corporation shall be authorized to issue is Eighty Million (80,000,000) shares, of which Seventy-Five Million (75,000,000) shall be designated as Common Stock, par value of $.001 per share, and Five Million (5,000,000) shall be designated as Preferred Stock, par value of $.001 per share."

FOURTH: This Certificate of Amendment of Certificate of Incorporation has been duly adopted in accordance with the provisions of Section 242 of the Delaware General Corporation Law.

FIFTH: This amendment was approved pursuant to a resolution of the Board of Directors and by a majority of the holders of the outstanding common stock of the Corporation at the annual meeting of stockholders held on August 9, 2005.

IN WITNESS WHEREOF, the undersigned affirms that the statements made herein are true under the penalties of perjury, this 9th day of August 2005.

/s/ Robert E. Farrell
Robert E. Farrell
Chief Financial Officer

State of Delaware
Secretary of State
Division of Corporations
Delivered 01:06 PM 05/30/2008
FILED 12:31 PM 05/30/2008
SRV 080637070 - 2287466 FILE

CERTIFICATE OF AMENDMENT

OF

CERTIFICATE OF INCORPORATION

OF

TITAN PHARMACEUTICALS, INC.

It is hereby certified as follows:

FIRST: The name of the corporation is: Titan Pharmaceuticals, Inc. (the "Corporation").

SECOND: The certificate of incorporation of the Corporation was filed with the Secretary of State of the State of Delaware on February 7, 1992 (the "Certificate of Incorporation").

THIRD: The Certificate of Incorporation is hereby amended by striking Article FOURTH thereof in its entirety and substituting in lieu thereof a new Article FOURTH, which shall read in its entirety as follows:

> "FOURTH: The total number of shares of all classes of stock which the Corporation shall be authorized to issue is One Hundred Thirty Million (130,000,000) shares, of which One Hundred Twenty-Five Million (125,000,000) shall be designated as Common Stock, par value of $.001 per share, and Five Million (5,000,000) shall be designated as Preferred Stock, par value of $.001 per share."

FOURTH: This Certificate of Amendment of Certificate of Incorporation has been duly adopted by the Board of Directors and approved by the stockholders of the Corporation in accordance with the provisions of Section 242 of the Delaware General Corporation Law.

IN WITNESS WHEREOF, the undersigned affirms that the statements made herein are true under the penalties of perjury, this 29th day of May, 2008.

/s/ Marc Rubin

Name: Marc Rubin, M.D.
Title: President and Chief Executive Officer

CERTIFICATE OF CORRECTION
FILED TO CORRECT
A CERTAIN ERROR IN THE
CERTIFICATE OF AMENDMENT
OF
CERTIFICATE OF INCORPORATION
OF
TITAN PHARMACEUTICALS, INC.
FILED IN THE OFFICE
OF
THE SECRETARY OF STATE OF DELAWARE
ON
MAY 30, 2008
****

Titan Pharmaceuticals, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware,

DOES HEREBY CERTIFY:

1. The name of the corporation is Titan Pharmaceuticals, Inc.

2. That a Certificate of Amendment of Certificate of Incorporation was filed by the Secretary of State of Delaware on May 30, 2008 and that said certificate requires correction as permitted by subsection (f) of Section 103 of the General Corporation Law of the State of Delaware.

The inaccuracy or defect of said certificate to be corrected is as follows: Due to a typographical error Article Fourth of the Certificate of Incorporation was deleted in its entirety and replaced. The intent of the Certificate of Amendment was to strike and delete the first paragraph of Article Fourth and replace it.

3. The first sentence of Article THIRD of the Certificate of Amendment is corrected to read as follows:

"THIRD: The Certificate of Incorporation is hereby amended by striking the first paragraph of Article Fourth in its entirety and substituting in lieu thereof a new first paragraph, which shall read in its entirety as follows:

"FOURTH: The total number of shares of all classes of stock which the Corporation shall be authorized to issue is One Hundred Thirty Million (130,000,000) shares, of which One Hundred Twenty-Five Million (125,000,000) shall be designated as Common Stock, par value of $.001 per share, and Five Million (5,000,000) shall be designated as Preferred Stock, par value of $.001 per share."

IN WITNESS WHEREOF, said Titan Pharmaceuticals, Inc. has caused this certificate to be signed by Sunil Bhonsle, its President, on this 28 day of July, 2009.

/s/ Sunil Bhonsle
Sunil Bhonsle, President

Exhibit 4.2

REGISTRATION RIGHTS AGREEMENT

This Registration Rights Agreement (this "Agreement") is made and entered into as of December 8, 2009 by and among Titan Pharmaceuticals, Inc., a Delaware corporation (the "Company"), and the signatories hereto (each a "Purchaser" and collectively, the "Purchasers").

This Agreement is made pursuant to the Stock Purchase Agreement, dated as of the date hereof between the Company and each Purchaser (the "Purchase Agreement").

NOW, THEREFORE, IN CONSIDERATION of the mutual covenants contained in this Agreement, and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Company and each of the Purchasers agree as follows:

1. Definitions. Capitalized terms used and not otherwise defined herein that are defined in the Purchase Agreement shall have the meanings given such terms in the Purchase Agreement. As used in this Agreement, the following terms shall have the following meanings:

"Advice" shall have the meaning set forth in Section 6(d).

"Affiliate" means, with respect to any person, any other person which directly or indirectly controls, is controlled by, or is under common control with, such person.

"Business Day" means a day, other than a Saturday or Sunday, on which banks in New York City are open for the general transaction of business.

"Commission" means the Securities and Exchange Commission.

"Common Stock" means the common stock of the Company, par value $0.001 per share, and any securities into which such common stock may hereinafter be reclassified.

"Effective Date" means the date that the Registration Statement filed pursuant to Section 2(a) is first declared effective by the Commission.

"Effectiveness Deadline" means the 10th calendar day following the Filing Deadline (or, in the event the Commission reviews and has written comments to the Registration Statement, the 90th calendar day following the Filing Deadline); *provided, however*, that if the Company is notified by the Commission that the Registration Statement will not be reviewed or is no longer subject to further review and comments, the Effectiveness Deadline as to such Registration Statement shall be the fifth Trading Day following the date on which the Company is so notified if such date precedes the dates otherwise required above; *provided, further*, that if the Effectiveness Deadline falls on a Saturday, Sunday or other day that the Commission is closed for business, the Effectiveness Deadline shall be extended to the next Business Day on which the Commission is open for business.

"Effectiveness Period" shall have the meaning set forth in Section 2(b).

"Event" shall have the meaning set forth in Section 2(c).

"Event Date" shall have the meaning set forth in Section 2(c).

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Filing Deadline" means the 30th calendar day following the Reporting Date, *provided, however*, that if the Filing Deadline falls on a Saturday, Sunday or other day that the Commission is closed for business, the Filing Deadline shall be extended to the next business day on which the Commission is open for business.

"Form 10" means the registration statement on Form 10 required to be filed by the Company with the Commission pursuant to Section 3.33 of the Purchase Agreement.

"Holder" or "Holders" means the holder or holders, as the case may be, from time to time of Registrable Securities.

"Indemnified Party" shall have the meaning set forth in Section 5(c).

"Indemnifying Party" shall have the meaning set forth in Section 5(c).

"Losses" shall have the meaning set forth in Section 5(a).

"New York Courts" means the state and federal courts sitting in the City of New York, Borough of Manhattan.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Principal Market" means the Trading Market on which the Common Stock is primarily listed on and quoted for trading, which, as of the Closing Date, shall be the Pink Sheets Market.

"Proceeding" means an action, claim, suit, investigation or proceeding (including, without limitation, an investigation or partial proceeding, such as a deposition), whether commenced or threatened.

"Prospectus" means the prospectus included in a Registration Statement (including, without limitation, a prospectus that includes any information previously omitted from a prospectus filed as part of an effective registration statement in reliance upon Rule 430A promulgated under the Securities Act), as amended or supplemented by any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by a Registration Statement, and all other amendments and supplements to the Prospectus, including post-effective amendments, and all material incorporated by reference or deemed to be incorporated by reference in such Prospectus.

"Registrable Securities" means the Shares and any securities issued or issuable upon any stock split, dividend or other distribution, recapitalization or similar event with respect

to the Shares, *provided*, that the Holder has completed and delivered to the Company a Selling Stockholder Questionnaire; and *provided, further*, that Shares shall cease to be Registrable Securities upon the earliest to occur of the following: (A) sale pursuant to a Registration Statement or Rule 144 under the Securities Act (in which case, only such security sold shall cease to be a Registrable Security); or (B) becoming eligible for sale without volume limitations by the Holder pursuant to Rule 144(b).

"Registration Statement" means any one or more registration statements of the Company filed under the Securities Act that covers the resale of any of the Registrable Securities pursuant to the provisions of this Agreement, amendments and supplements to such Registration Statements, including post-effective amendments, all exhibits and all material incorporated by reference or deemed to be incorporated by reference in such Registration Statements.

"Reporting Date" means the date on which the Commission has declared the Form 10 effective and the Company is subject to the reporting requirements of the Exchange Act.

"Rule 144" means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same effect as such Rule.

"Rule 415" means Rule 415 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same effect as such Rule.

"Rule 424" means Rule 424 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same effect as such Rule.

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Selling Stockholder Questionnaire" means a questionnaire in the form attached as Annex B hereto, or such other form of questionnaire as may reasonably be adopted by the Company from time to time.

"Shares" means the shares of Common Stock issued to the Purchasers pursuant to the Purchase Agreement.

"Trading Day" means (i) a day on which the Common Stock is listed or quoted and traded on its Principal Market (other than the OTC Bulletin Board), or (ii) if the Common Stock is not listed on a Trading Market (other than the OTC Bulletin Board), a day on which the Common Stock is traded in the over-the-counter market, as reported by the OTC Bulletin Board, or (iii) if the Common Stock is not quoted on any Trading Market, a day on which the Common Stock is quoted in the over-the-counter market as reported in the "pink sheets" by Pink Sheets LLC (or any similar organization or agency succeeding to its functions of reporting prices); *provided*, that in the event that the Common Stock is not listed or quoted as set forth in (i), (ii) and (iii) hereof, then Trading Day shall mean a Business Day.

"Trading Market" means whichever of the New York Stock Exchange, the American Stock Exchange, the NASDAQ Global Select Market, the NASDAQ Global Market, the NASDAQ Capital Market, OTC Bulletin Board or the OTC Pink Sheets on which the Common Stock is listed or quoted for trading on the date in question.

"Warrant Shares" means the shares of Common Stock, other than the Shares, issued or issuable upon exercise of the warrants issued to the Purchasers and the other participants in the Company's December 2007 private placement.

2. Registration.

(a) On or prior to the Filing Deadline, the Company shall prepare and file with the Commission a Registration Statement covering the resale of all of the Registrable Securities for an offering to be made on a continuous basis pursuant to Rule 415, or if Rule 415 is not available for offers and sales of the Registrable Securities, by such other means of distribution of Registrable Securities as the Holders may reasonably specify. The Registration Statement shall contain (except if otherwise required pursuant to written comments received from the Commission upon a review of such Registration Statement) the "Plan of Distribution" section substantially in the form attached hereto as Annex A.

(b) The Company shall use its commercially reasonably efforts to cause the Registration Statement to be declared effective by the Commission as soon as practicable and no later than the Effectiveness Deadline (including filing with the Commission a request for acceleration of effectiveness in accordance with Rule 461 promulgated under the Securities Act within five (5) Business Days after the date that the Company is notified (orally or in writing, whichever is earlier) by the Commission that such Registration Statement will not be "reviewed," or not be subject to further review and the effectiveness of such Registration Statement may be accelerated), and shall use its commercially reasonably efforts to keep such Registration Statement continuously effective under the Securities Act until the earlier of (i) such time as all of the Registrable Securities covered by such Registration Statement have been publicly sold by the Holders or (ii) the date that all Registrable Securities covered by such Registration Statement may be sold by non-affiliates without volume restrictions pursuant to Rule 144(b) (the "Effectiveness Period"). The Company shall request effectiveness of a Registration Statement as of 5:00 p.m. New York City time on a Trading Day. The Company shall promptly notify the Holders via facsimile or electronic mail of a ".pdf" format data file of the effectiveness of a Registration Statement on or before one Trading Day after the day the Company telephonically confirms effectiveness with the Commission, which confirmation shall be the date requested for effectiveness of a Registration Statement. The Company shall, by 9:30 a.m. New York City Time on the second Trading Day after the Effective Date, file a final Prospectus with the Commission, as required by Rule 424(b).

(c) If: (i) Registration Statement is not filed by the Filing Deadline and is not declared effective by the Commission (or otherwise does not become effective) for any reason on or prior to the Effectiveness Deadline or (ii) after the Effective Date, (A) the Registration Statement ceases for any reason (including without limitation by reason of a stop order, or the Company's failure to update the Registration Statement), to remain continuously effective as to all Registrable Securities for which it is required to be effective or (B) the Holders are not

permitted to utilize the Prospectus therein to resell such Registrable Securities, in the case of (A) and (B), for more than an aggregate of 30 Trading Days (which need not be consecutive) (other than during an Allowable Grace Period (as defined in Section 2(e) of this Agreement)) or (iii) a Grace Period (as defined in Section 2(e) of this Agreement) exceeds the length of an Allowable Grace Period (any such failure or breach in clauses (i) through (iii) above being referred to as an "Event," and, for purposes of clauses (i) or (ii), the date on which such Event occurs, or for purposes of clause (iii), the date on which such 30 Trading Day period is exceeded, or for purposes of clause (iv) the date on which such Allowable Grace Period is exceeded, being referred to as an "Event Date"), then in addition to any other rights the Holders may have hereunder or under applicable law, on each monthly anniversary of each such Event Date (if the applicable Event shall not have been cured by such date) until the applicable Event is cured, the Company shall pay to each Holder an amount in cash, as partial liquidated damages and not as a penalty ("Liquidated Damages"), equal to .05% of the aggregate purchase price paid by such Holder pursuant to the Purchase Agreement for any Registrable Securities then held by such Holder. The parties agree that (1) in no event shall the Company be liable in any 30-day period for Liquidated Damages under this Agreement in excess of .05% of the aggregate purchase price paid by the Holders pursuant to the Purchase Agreement and (2) the maximum aggregate Liquidated Damages payable to a Holder under this Agreement shall be two percent (2%) of the aggregate purchase price paid by such Holder pursuant to the Purchase Agreement. The Liquidated Damages pursuant to the terms hereof shall apply on a daily pro-rata basis for any portion of a month prior to the cure of an Event. The Effectiveness Deadline for a Registration Statement shall be extended without default or Liquidated Damages hereunder in the event that the Company's failure to obtain the effectiveness of the Registration Statement on a timely basis results solely from the failure of a Purchaser to timely provide the Company with information requested by the Company and necessary to complete the Registration Statement in accordance with the requirements of the Securities Act (in which the Effectiveness Deadline would be extended with respect to Registrable Securities held by such Purchaser).

(d) Each Holder agrees to furnish to the Company a completed Selling Stockholder Questionnaire not more than five (5) Trading Days following notification by the Company of the Reporting Date. Each Holder further agrees that it shall not be entitled to be named as a selling security holder in the Registration Statement or use the Prospectus for offers and resales of Registrable Securities at any time, unless such Holder has returned to the Company a completed and signed Selling Stockholder Questionnaire. If a Holder of Registrable Securities returns a Selling Stockholder Questionnaire after the deadline specified in the previous sentence, the Company shall use its commercially reasonable efforts to take such actions as are required to name such Holder as a selling security holder in the Registration Statement or any pre-effective or post-effective amendment thereto and to include (to the extent not theretofore included) in the Registration Statement the Registrable Securities identified in such late Selling Stockholder Questionnaire. Each Holder acknowledges and agrees that the information in the Selling Stockholder Questionnaire will be used by the Company in the preparation of the Registration Statement and hereby consents to the inclusion of such information in the Registration Statement.

(e) Notwithstanding anything to the contrary herein, at any time after the Registration Statement has been declared effective by the Commission, the Company may delay the disclosure of material non-public information concerning the Company if the disclosure of

such information at the time is not, in the good faith judgment of the Company, in the best interests of the Company (a "Grace Period"); *provided, however*, the Company shall promptly (i) notify the Holders in writing of the existence of material non-public information giving rise to a Grace Period (provided that the Company shall not disclose the content of such material non-public information to the Holders) or the need to file a post-effective amendment, as applicable, and the date on which such Grace Period will begin, and (ii) notify the Holders in writing of the date on which the Grace Period ends; *provided, further*, that no single Grace Period shall exceed thirty (30) consecutive days, and during any three hundred sixty-five (365) day period, the aggregate of all Grace Periods shall not exceed an aggregate of ninety (90) days (each Grace Period complying with this provision being an "Allowable Grace Period"). For purposes of determining the length of a Grace Period, the Grace Period shall be deemed to begin on and include the date the Holders receive the notice referred to in clause (i) above and shall end on and include the later of the date the Holders receive the notice referred to in clause (ii) above and the date referred to in such notice; *provided, however*, that no Grace Period shall be longer than an Allowable Grace Period. Notwithstanding anything to the contrary, the Company shall cause the Transfer Agent to deliver unlegended shares of Common Stock to a transferee of a Holder in accordance with the terms of the Purchase Agreement in connection with any sale of Registrable Securities with respect to which a Holder has entered into a contract for sale prior to the Holder's receipt of the notice of a Grace Period and for which the Holder has not yet settled.

3. Registration Procedures.

In connection with the Company's registration obligations hereunder, the Company shall:

(a) (i) Prepare and file with the Commission such amendments (including post-effective amendments) and supplements, to each Registration Statement and the Prospectus used in connection therewith as may be necessary to keep such Registration Statement continuously effective as to the applicable Registrable Securities for its Effectiveness Period (except during an Allowable Grace Period); (ii) cause the related Prospectus to be amended or supplemented by any required Prospectus supplement (subject to the terms of this Agreement), and, as so supplemented or amended, to be filed pursuant to Rule 424 (except during an Allowable Grace Period); (iii) respond as promptly as reasonably practicable to any comments received from the Commission with respect to each Registration Statement or any amendment thereto and, as promptly as reasonably possible, provide the Holders true and complete copies of all correspondence from and to the Commission relating to such Registration Statement that pertains to the Holders as "Selling Stockholders" but not any comments that would result in the disclosure to the Holders of material and non-public information concerning the Company; and (iv) comply with the provisions of the Securities Act and the Exchange Act with respect to the disposition of all Registrable Securities covered by a Registration Statement until such time as all of such Registrable Securities shall have been disposed of (subject to the terms of this Agreement) in accordance with the intended methods of disposition by the Holders thereof set forth in such Registration Statement as so amended or in such Prospectus as so supplemented; *provided, however*, that each Purchaser shall be responsible for the delivery of the Prospectus to the Persons to whom such Purchaser sells any of the Shares (including in accordance with Rule 172 under the Securities Act), and each Purchaser agrees to dispose of Registrable Securities in compliance with the Plan of Distribution described in the Registration Statement and otherwise

in compliance with applicable federal and state securities laws. In the case of amendments and supplements to a Registration Statement which are required to be filed pursuant to this Agreement (including pursuant to this Section 3(b)) by reason of the Company filing a report on Form 10-K, Form 10-Q or Form 8-K or any analogous report under the Exchange Act, the Company shall have incorporated such report by reference into such Registration Statement, if applicable, or shall file such amendments or supplements with the Commission no later than three Business Days following the day on which the Exchange Act report which created the requirement for the Company to amend or supplement such Registration Statement was filed.

(b) Notify the Holders (which notice shall, pursuant to clauses (iii) through (v) hereof, be accompanied by an instruction to suspend the use of the Prospectus until the requisite changes have been made) as promptly as reasonably practicable (and, in the case of (i)(A) below, not less than two Trading Days prior to such filing, in the case of (iii) and (iv) below, not more than one Trading Day after such issuance or receipt, in the case of (v) below, not less than one Trading Day after a determination by the Company that the financial statements in any Registration Statement have become ineligible for inclusion therein and, in the case of (v) below, not more than one Trading Day after the occurrence or existence of such development) and (if requested by any such Person) confirm such notice in writing no later than one Trading Day following the day (i)(A) when a Prospectus or any Prospectus supplement or post-effective amendment to a Registration Statement is proposed to be filed; (B) when the Commission notifies the Company whether there will be a "review" of such Registration Statement and whenever the Commission comments in writing on any Registration Statement (in which case the Company shall provide to the Holder true and complete copies of all comments that pertain to the Holders as a "Selling Stockholder" or if it would materially impact the Holder, to the "Plan of Distribution" and all written responses thereto, but not information that the Company believes would constitute material and non-public information); and (C) with respect to each Registration Statement or any post-effective amendment, when the same has become effective; (ii) of any request by the Commission or any other Federal or state governmental authority for amendments or supplements to a Registration Statement or Prospectus or for additional information that pertains to the Holders as "Selling Stockholders" or if it would materially impact the Holder, the "Plan of Distribution"; (iii) of the issuance by the Commission or any other federal or state governmental authority of any stop order suspending the effectiveness of a Registration Statement covering any or all of the Registrable Securities or the initiation of any Proceedings for that purpose; (iv) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Registrable Securities for sale in any jurisdiction, or the initiation or threatening of any Proceeding for such purpose; and (v) of the occurrence of any event or passage of time that makes the financial statements included in a Registration Statement ineligible for inclusion therein or any statement made in such Registration Statement or Prospectus or any document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires any revisions to such Registration Statement, Prospectus or other documents so that, in the case of such Registration Statement or the Prospectus, as the case may be, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus, form of prospectus or supplement thereto, in light of the circumstances under which they were made), not misleading.

(c) Use commercially reasonable efforts to avoid the issuance of, or, if issued, obtain the withdrawal of (i) any order suspending the effectiveness of a Registration Statement, or (ii) any suspension of the qualification (or exemption from qualification) of any of the Registrable Securities for sale in any jurisdiction, at soon as practicable.

(d) If requested by a Holder, furnish to such Holder, without charge, at least one conformed copy of each Registration Statement and each amendment thereto and all exhibits to the extent requested by such Person (including those previously furnished or incorporated by reference) promptly after the filing of such documents with the Commission; *provided*, that the Company shall have no obligation to provide any document pursuant to this clause that is available on the Commission's EDGAR system.

(e) Prior to any resale of Registrable Securities by a Holder, use its commercially reasonable efforts to register or qualify or cooperate with the selling Holders in connection with the registration or qualification (or exemption from the registration or qualification) of such Registrable Securities for the resale by the Holder under the securities or Blue Sky laws of such jurisdictions within the United States as any Holder reasonably requests in writing, to keep each registration or qualification (or exemption therefrom) effective during the Effectiveness Period and to do any and all other acts or things reasonably necessary to enable the disposition in such jurisdictions of the Registrable Securities covered by each Registration Statement; provided, that the Company shall not be required to qualify generally to do business in any jurisdiction where it is not then so qualified, subject the Company to any material tax in any such jurisdiction where it is not then so subject or file a general consent to service of process in any such jurisdiction.

(f) If requested by the Holders, cooperate with the Holders to facilitate the timely preparation and delivery of certificates representing Registrable Securities to be delivered to a transferee pursuant to a Registration Statement, which certificates shall be free, to the extent permitted by the Purchase Agreement and under law, of all restrictive legends, and to enable such Registrable Securities to be in such denominations and registered in such names as any such Holders may reasonably request.

(g) Following the occurrence of any event contemplated by Section 3(b)(iii)-(v), as promptly as reasonably practicable under the circumstances taking into account the Company's good faith assessment of any adverse consequences to the Company and its stockholders of the premature disclosure of such event, prepare a supplement or amendment, including a post-effective amendment, to the affected Registration Statements or a supplement to the related Prospectus or any document incorporated or deemed to be incorporated therein by reference, and file any other required document so that, as thereafter delivered, no Registration Statement nor any Prospectus will contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus, form of prospectus or supplement thereto, in light of the circumstances under which they were made), not misleading.

(h) Comply with all applicable rules and regulations of the Commission.

(i) The Company may require each selling Holder to furnish to the Company a certified statement as to the number of shares of Common Stock beneficially owned by such Holder and, if required by the Commission, the natural persons thereof that have voting and dispositive control over the Shares. During any periods that the Company is unable to meet its obligations hereunder with respect to the registration of the Registrable Securities solely because any Holder fails to furnish such information within three Trading Days of the Company's request, any liquidated damages that are accruing at such time as to such Holder only shall be tolled and any Event that may otherwise occur solely because of such delay shall be suspended as to such Holder only, until such information is delivered to the Company.

4. Registration Expenses. All fees and expenses incident to the Company's performance of or compliance with its obligations under this Agreement (excluding any underwriting discounts and selling commissions and all legal fees and expenses of legal counsel for any Holder) shall be borne by the Company whether or not any Registrable Securities are sold pursuant to a Registration Statement. The fees and expenses referred to in the foregoing sentence shall include, without limitation, (i) all registration and filing fees (including, without limitation, fees and expenses (A) with respect to filings required to be made with any Trading Market on which the Common Stock is then listed for trading and (B) with respect to compliance with applicable state securities or Blue Sky laws (including, without limitation, fees and disbursements of counsel for the Company in connection with Blue Sky qualifications or exemptions of the Registrable Securities and determination of the eligibility of the Registrable Securities for investment under the laws of such jurisdictions as requested by the Holders), (ii) printing expenses (including, without limitation, expenses of printing certificates for Registrable Securities and of printing prospectuses if the printing of prospectuses is reasonably requested by the Holders of a majority of the Registrable Securities included in the Registration Statement), (iii) messenger, telephone and delivery expenses, (iv) fees and disbursements of counsel for the Company, (v) Securities Act liability insurance, if the Company so desires such insurance, and (vi) fees and expenses of all other Persons retained by the Company in connection with the consummation of the transactions contemplated by this Agreement. In addition, the Company shall be responsible for all of its internal expenses incurred in connection with the consummation of the transactions contemplated by this Agreement (including, without limitation, all salaries and expenses of its officers and employees performing legal or accounting duties), the expense of any annual audit and the fees and expenses incurred in connection with the listing of the Registrable Securities on any securities exchange as required hereunder. In no event shall the Company be responsible for any underwriting, broker or similar fees or commissions of any Holder or, except to the extent provided for in the Transaction Agreements, any legal fees or other costs of the Holders.

5. Indemnification.

(a) Indemnification by the Company. The Company shall, notwithstanding any termination of this Agreement, indemnify, defend and hold harmless each Holder, the officers, directors, agents, partners, members, managers, stockholders, Affiliates and employees of each of them, each Person who controls any such Holder (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) and the officers, directors, partners, members, managers, stockholders, agents and employees of each such controlling Person, to the fullest extent permitted by applicable law, from and against any and all losses, claims, damages,

liabilities, costs (including, without limitation, reasonable costs of preparation and investigation and reasonable attorneys' fees) and expenses (collectively, "Losses"), as incurred, that arise out of or are based upon (i) any untrue or alleged untrue statement of a material fact contained in any Registration Statement, any Prospectus or any form of prospectus or in any amendment or supplement thereto or in any preliminary prospectus, or arising out of or relating to any omission or alleged omission to state a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or form of prospectus or supplement thereto, in light of the circumstances under which they were made) not misleading, or (ii) any violation or alleged violation by the Company of the Securities Act, Exchange Act or any state securities law or any rule or regulation thereunder, in connection with the performance of its obligations under this Agreement, except to the extent, but only to the extent, that (A) such untrue statements, alleged untrue statements, omissions or alleged omissions are based solely upon information regarding such Holder furnished in writing to the Company by such Holder expressly for use therein, or to the extent that such information relates to such Holder or such Holder's proposed method of distribution of Registrable Securities and was reviewed and approved by such Holder expressly for use in a Registration Statement, such Prospectus or such form of Prospectus or in any amendment or supplement thereto (it being understood that the Holder has approved Annex A hereto for this purpose), (B) in the case of an occurrence of an event of the type specified in Section 3(b)(iii)-(v), related to the use by a Holder of an outdated or defective Prospectus after the Company has notified such Holder in writing that the Prospectus is outdated or defective and prior to the receipt by such Holder of the Advice contemplated and defined in Section 6(d) below, but only if and to the extent that following the receipt of the Advice the misstatement or omission giving rise to such Loss would have been corrected or (C) any such Losses arise out of the Purchaser's (or any other indemnified Person's) failure to send or give a copy of the Prospectus or supplement (as then amended or supplemented) to the Persons asserting an untrue statement or alleged untrue statement or alleged untrue statement or omission or alleged omission at or prior to the written confirmation of the sale of Registrable Securities to such Person if such statement or omission was corrected in such Prospectus or supplement. The Company shall notify the Holders promptly of the institution, threat or assertion of any Proceeding arising from or in connection with the transactions contemplated by this Agreement of which the Company is aware. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of an Indemnified Party (as defined in Section 5(c)) and shall survive the transfer of the Registrable Securities by the Holders.

(b) Indemnification by Holders. Each Holder shall, severally and not jointly, indemnify and hold harmless the Company, its directors, officers, agents and employees, each Person who controls the Company (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, agents or employees of such controlling Persons, to the fullest extent permitted by applicable law, from and against all Losses, as incurred, arising out of or are based upon (x) such Holder's failure to comply with the prospectus delivery requirements of the Securities Act or (y) any untrue or alleged untrue statement of a material fact contained in any Registration Statement, any Prospectus, or any form of prospectus, or in any amendment or supplement thereto or in any preliminary prospectus, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus, or any form of prospectus or supplement thereto, in light of the circumstances under which they were made) not misleading (i) to the extent, but only to the extent, that such untrue statements or

omissions are based solely upon information regarding such Holder furnished in writing to the Company by such Holder expressly for use therein or (ii) to the extent that such information relates to such Holder or such Holder's proposed method of distribution of Registrable Securities and was reviewed and approved by such Holder expressly for use in a Registration Statement (it being understood that the Holder has approved Annex A hereto for this purpose), such Prospectus or such form of Prospectus or in any amendment or supplement thereto or (iii) in the case of an occurrence of an event of the type specified in Section 3(b)(iii)-(v), to the extent related to the use by such Holder of an outdated or defective Prospectus after the Company has notified such Holder in writing that the Prospectus is outdated or defective and prior to the receipt by such Holder of the Advice contemplated in Section 6(d). In no event shall the liability of any selling Holder hereunder be greater in amount than the dollar amount of the net proceeds received by such Holder upon the sale of the Registrable Securities giving rise to such indemnification obligation.

(c) Conduct of Indemnification Proceedings. If any Proceeding shall be brought or asserted against any Person entitled to indemnity hereunder (an "*Indemnified Party*"), such Indemnified Party shall promptly notify the Person from whom indemnity is sought (the "*Indemnifying Party*") in writing, and the Indemnifying Party shall have the right to assume the defense thereof, including the employment of counsel reasonably satisfactory to the Indemnified Party and the payment of all reasonable fees and expenses incurred in connection with defense thereof; *provided*, that the failure of any Indemnified Party to give such notice shall not relieve the Indemnifying Party of its obligations or liabilities pursuant to this Agreement, except (and only) to the extent that it shall be finally determined by a court of competent jurisdiction (which determination is not subject to appeal or further review) that such failure shall have materially and adversely prejudiced the Indemnifying Party.

An Indemnified Party shall have the right to employ separate counsel in any such Proceeding and to participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnified Party or Parties unless: (1) the Indemnifying Party has agreed in writing to pay such fees and expenses; (2) the Indemnifying Party shall have failed promptly to assume the defense of such Proceeding and to employ counsel reasonably satisfactory to such Indemnified Party in any such Proceeding; or (3) the named parties to any such Proceeding (including any impleaded parties) include both such Indemnified Party and the Indemnifying Party, and such Indemnified Party shall have been advised by counsel that a conflict of interest exists if the same counsel were to represent such Indemnified Party and the Indemnifying Party (in which case, if such Indemnified Party notifies the Indemnifying Party in writing that it elects to employ separate counsel at the expense of the Indemnifying Party, the Indemnifying Party shall not have the right to assume the defense thereof and such counsel shall be at the expense of the Indemnifying Party); *provided*, that the Indemnifying Party shall not be liable for the fees and expenses of more than one separate firm of attorneys at any time for all Indemnified Parties. The Indemnifying Party shall not be liable for any settlement of any such Proceeding effected without its written consent, which consent shall not be unreasonably withheld, delayed or conditioned. No Indemnifying Party shall, without the prior written consent of the Indemnified Party, effect any settlement of any pending Proceeding in respect of which any Indemnified Party is a party, unless such settlement includes an unconditional release of such Indemnified Party from all liability on claims that are the subject matter of such Proceeding.

Subject to the terms of this Agreement, all fees and expenses of the Indemnified Party (including reasonable fees and expenses to the extent incurred in connection with investigating or preparing to defend such Proceeding in a manner not inconsistent with this Section) shall be paid to the Indemnified Party, as incurred, within twenty Trading Days of written notice thereof to the Indemnifying Party; *provided*, that the Indemnified Party shall promptly reimburse the Indemnifying Party for that portion of such fees and expenses applicable to such actions for which such Indemnified Party is finally judicially determined to not be entitled to indemnification hereunder). The failure to deliver written notice to the Indemnifying Party within a reasonable time of the commencement of any such action shall not relieve such Indemnifying Party of any liability to the Indemnified Party under this Section 5, except to the extent that the Indemnifying Party is materially and adversely prejudiced in its ability to defend such action.

(d) Contribution. If the indemnification under Section 5(a) or 5(b) is unavailable to an Indemnified Party or insufficient to hold an Indemnified Party harmless for any Losses, then each Indemnifying Party, in lieu of indemnifying such Indemnified Party, shall contribute to the amount paid or payable by such Indemnified Party as a result of such Losses, in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party and Indemnified Party in connection with the actions, statements or omissions that resulted in such Losses as well as any other relevant equitable considerations. The relative fault of such Indemnifying Party and Indemnified Party shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or omission or alleged omission of a material fact, has been taken or made by, or relates to information supplied by, such Indemnifying Party or Indemnified Party, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such action, statement or omission. The amount paid or payable by a party as a result of any Losses shall be deemed to include, subject to the limitations set forth in this Agreement, any reasonable attorneys' or other reasonable fees or expenses incurred by such party in connection with any Proceeding to the extent such party would have been indemnified for such fees or expenses if the indemnification provided for in this Section was available to such party in accordance with its terms.

The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 5(d) were determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to in the immediately preceding paragraph. Notwithstanding the provisions of this Section 5(d), no Holder shall be required to contribute, in the aggregate, any amount in excess of the amount by which the net proceeds actually received by such Holder from the sale of the Registrable Securities subject to the Proceeding exceeds the amount of any damages that such Holder has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation.

The indemnity and contribution agreements contained in this Section are in addition to any liability that the Indemnifying Parties may have to the Indemnified Parties and are not in dimunition or limitation of the indemnification provisions under the Purchase Agreement.

6. Miscellaneous.

(a) Remedies. In the event of a breach by the Company or by a Holder of any of their obligations under this Agreement, each Holder or the Company, as the case may be, in addition to being entitled to exercise all rights granted by law and under this Agreement, including recovery of damages, will be entitled to specific performance of its rights under this Agreement. The Company and each Holder agree that monetary damages would not provide adequate compensation for any losses incurred by reason of a breach by it of any of the provisions of this Agreement and hereby further agrees that, in the event of any action for specific performance in respect of such breach, it shall waive the defense that a remedy at law would be adequate.

(b) No Piggyback on Registrations. Neither the Company nor any of its security holders (other than the Holders in such capacity pursuant hereto) may include securities of the Company in a Registration Statement other than the Registrable Securities or the Warrant Shares, and the Company shall not prior to the Effective Date enter into any agreement providing any such right to any of its security holders. The Company shall not, from the date hereof until the date that is 60 days after the Effective Date of the Registration Statement, prepare and file with the Commission a registration statement relating to an offering for its own account under the Securities Act of any of its equity securities other than a registration statement on Form S-8 or, in connection with an acquisition, on Form S-4. For the avoidance of doubt, the Company shall not be prohibited from preparing and filing with the Commission a registration statement relating to an offering of Common Stock by existing stockholders of the Company under the Securities Act pursuant to the terms of registration rights held by such stockholder or from filing amendments to registration statements filed prior to the date of this Agreement.

(c) Compliance. Each Holder covenants and agrees that it will comply with the prospectus delivery requirements of the Securities Act as applicable to it in connection with sales of Registrable Securities pursuant to a Registration Statement and shall sell the Registrable Securities only in accordance with a method of distribution described in the Registration Statement

(d) Discontinued Disposition. By its acquisition of Registrable Securities, each Holder agrees that, upon receipt of a notice from the Company of the occurrence of any event of the kind described in Section 3(b)(iii)-(v), such Holder will forthwith discontinue disposition of such Registrable Securities under a Registration Statement until it is advised in writing (the "*Advice*") by the Company that the use of the applicable Prospectus (as it may have been supplemented or amended) may be resumed. The Company may provide appropriate stop orders to enforce the provisions of this paragraph.

(e) No Inconsistent Agreements. Neither the Company nor any of its Subsidiaries has entered, as of the date hereof, nor shall the company or any of its Subsidiaries, on or after the date hereof, enter into any agreement with respect to its securities, that would have the effect of impairing the rights granted to the Holders in this Agreement or otherwise conflicts with the provisions hereof.

(f) Amendments and Waivers. The provisions of this Agreement, including the provisions of this sentence, may not be amended, modified or supplemented, or waived unless the same shall be in writing and signed by the Company and Holders holding a majority of the then outstanding Registrable Securities. Notwithstanding the foregoing, a waiver or consent to depart from the provisions hereof with respect to a matter that relates exclusively to the rights of Holders and that does not directly or indirectly affect the rights of other Holders may be given by Holders of all of the Registrable Securities to which such waiver or consent relates; *provided*, *however*, that the provisions of this sentence may not be amended, modified, or supplemented except in accordance with the provisions of the immediately preceding sentence.

(g) Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be delivered as set forth in the Purchase Agreement.

(h) Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of each of the parties and shall inure to the benefit of each Holder. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement. The Company may not assign its rights (except by merger or in connection with another entity acquiring all or substantially all of the Company's assets) or obligations hereunder without the prior written consent of all the Holders of the then outstanding Registrable Securities. Each Holder may assign its respective rights hereunder in the manner and to the Persons as permitted under the Purchase Agreement; provided in each case that (i) the Holder agrees in writing with the transferee or assignee to assign such rights and related obligations under this Agreement, and for the transferee or assignee to assume such obligations, and a copy of such agreement is furnished to the Company within a reasonable time after such assignment, (ii) the Company is, within a reasonable time after such transfer or assignment, furnished with written notice of the name and address of such transferee or assignee and the securities with respect to which such registration rights are being transferred or assigned, (iii) at or before the time the Company received the written notice contemplated by clause (ii) of this sentence, the transferee or assignee agrees in writing with the Company to be bound by all of the provisions contained herein and (iv) the transferee is an "accredited investor," as that term is defined in Rule 501 of Regulation D.

(i) Execution and Counterparts. This Agreement may be executed in two or more counterparts, each of which when so executed shall be deemed to be an original and, all of which taken together shall constitute one and the same Agreement and shall become effective when counterparts have been signed by each party and delivered to the other party, it being understood that both parties need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf" signature were the original thereof.

(j) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be determined in accordance with the provisions of the Purchase Agreement.

(k) Cumulative Remedies. The remedies provided herein are cumulative and not exclusive of any other remedies provided by law.

(l) Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the parties hereto shall use their good faith reasonable efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the parties that they would have executed the remaining terms, provisions, covenants and restrictions without including any of such that may be hereafter declared invalid, illegal, void or unenforceable.

(m) Headings. The headings in this Agreement are for convenience only and shall not limit or otherwise affect the meaning hereof.

(n) Independent Nature of Purchasers' Obligations and Rights. The obligations of each Purchaser under this Agreement are several and not joint with the obligations of any other Purchaser hereunder, and no Purchaser shall be responsible in any way for the performance of the obligations of any other Purchaser hereunder. The decision of each Purchaser to purchase the Shares pursuant to the Transaction Agreements has been made independently of any other Purchaser. Nothing contained herein or in any other agreement or document delivered at any closing, and no action taken by any Purchaser pursuant hereto or thereto, shall be deemed to constitute the Purchasers as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Purchasers are in any way acting in concert with respect to such obligations or the transactions contemplated by this Agreement. Each Purchaser acknowledges that no other Purchaser has acted as agent for such Purchaser in connection with making its investment hereunder and that no Purchaser will be acting as agent of such Purchaser in connection with monitoring its investment in the Shares or enforcing its rights under the Transaction Agreements. Each Purchaser shall be entitled to protect and enforce its rights, including, without limitation, the rights arising out of this Agreement, and it shall not be necessary for any other Purchaser to be joined as an additional party in any Proceeding for such purpose. The Company acknowledges that each of the Purchasers has been provided with the same Registration Rights Agreement for the purpose of closing a transaction with multiple Purchasers and not because it was required or requested to do so by any Purchaser.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK,
SIGNATURE PAGES TO FOLLOW]

IN WITNESS WHEREOF, the parties have executed this Registration Rights Agreement as of the date first written above.

TITAN PHARMACEUTICALS, INC.

By: /s/ Sunil Bhonsle
Name: Sunil Bhonsle
Title: President

HENRY C. BEINSTEIN

/s/ Henry C. Beinstein

HENRY C. BEINSTEIN ROLLOVER IRA

By: /s/ Henry C. Beinstein
Name: Henry C. Beinstein
Title: Rollover IRA a/c

ADDRESS FOR NOTICE

c/o: Henry Beinstein, Gagnon Securities

Street: 1370 Avenue of the Americas, Suite 2400

City/State/Zip: New York, NY 10019

Attention: Henry Beinstein

Tel: 212-554-5024

Fax: 212-265-6417

Email: hbeinstein@gagnonsec.com

PLAN OF DISTRIBUTION

We are registering the shares of Common Stock issued to the selling stockholders to permit the resale of these shares of Common Stock by the holders from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of Common Stock. We will bear all fees and expenses incident to our obligation to register the shares of Common Stock.

The selling stockholders may sell all or a portion of the shares of Common Stock beneficially owned by them and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the shares of Common Stock are sold through underwriters or broker-dealers, the selling stockholders will be responsible for underwriting discounts or commissions or agent's commissions. The shares of Common Stock may be sold on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale, in the over-the-counter market or in transactions otherwise than on these exchanges or systems or in the over-the-counter market and in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions. The selling stockholders may use any one or more of the following methods when selling shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales entered into after the effective date of the registration statement of which this prospectus is a part;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- through the writing or settlement of options or other hedging transactions, whether such options are listed on an options exchange or otherwise;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, as permitted by that rule, or Section 4(1) under the Securities Act, if available, rather than under this prospectus, provided that they meet the criteria and conform to the requirements of those provisions.

Broker-dealers engaged by the selling stockholders may arrange for other broker-dealers to participate in sales. If the selling stockholders effect such transactions by selling shares of Common Stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholders or commissions from purchasers of the shares of Common Stock for whom they may act as agent or to whom they may sell as principal. Such commissions will be in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction will not be in excess of a customary brokerage commission in compliance with FINRA Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with FINRA IM-2440.

In connection with sales of the shares of Common Stock or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the shares of Common Stock in the course of hedging in positions they assume. The selling stockholders may also sell shares of Common Stock short and if such short sale shall take place after the date that this Registration Statement is declared effective by the Commission, the selling stockholders may deliver shares of Common Stock covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling stockholders may also loan or pledge shares of Common Stock to broker-dealers that in turn may sell such shares, to the extent permitted by applicable law. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). Notwithstanding the foregoing, the selling stockholders have been advised that they may not use shares registered on this registration statement to cover short sales of our common stock made prior to the date the registration statement, of which this prospectus forms a part, has been declared effective by the SEC.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of Common Stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of Common Stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933, as amended, amending, if necessary, the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer and donate the shares of Common Stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling stockholders and any broker-dealer or agents participating in the distribution of the shares of Common Stock may be deemed to be “underwriters” within the meaning of Section 2(11) of the Securities Act in connection with such sales. In such event, any commissions paid, or any discounts or concessions allowed to, any such broker-dealer or agent and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Selling Stockholders who are “underwriters”

within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act and may be subject to certain statutory liabilities of, including but not limited to, Sections 11, 12 and 17 of the Securities Act and Rule 10b-5 under the Securities Exchange Act of 1934, as amended, or the Exchange Act.

Each selling stockholder has informed the Company that it is not a registered broker-dealer and does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the Common Stock. Upon the Company being notified in writing by a selling stockholder that any material arrangement has been entered into with a broker-dealer for the sale of common stock through a block trade, special offering, exchange distribution or secondary distribution or a purchase by a broker or dealer, a supplement to this prospectus will be filed, if required, pursuant to Rule 424(b) under the Securities Act, disclosing (i) the name of each such selling stockholder and of the participating broker-dealer(s), (ii) the number of shares involved, (iii) the price at which such the shares of Common Stock were sold, (iv) the commissions paid or discounts or concessions allowed to such broker-dealer(s), where applicable, (v) that such broker-dealer(s) did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus, and (vi) other facts material to the transaction. In no event shall any broker-dealer receive fees, commissions and markups, which, in the aggregate, would exceed eight percent (8%).

Under the securities laws of some states, the shares of Common Stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of Common Stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that any selling stockholder will sell any or all of the shares of Common Stock registered pursuant to the shelf registration statement, of which this prospectus forms a part.

Each selling stockholder and any other person participating in such distribution will be subject to applicable provisions of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder, including, without limitation, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of Common Stock by the selling stockholder and any other participating person. Regulation M may also restrict the ability of any person engaged in the distribution of the shares of Common Stock to engage in market-making activities with respect to the shares of Common Stock. All of the foregoing may affect the marketability of the shares of Common Stock and the ability of any person or entity to engage in market-making activities with respect to the shares of Common Stock.

We will pay all expenses of the registration of the shares of Common Stock pursuant to the registration rights agreement, including, without limitation, Securities and Exchange Commission filing fees and expenses of compliance with state securities or “blue sky” laws; *provided*, *however*, that each selling stockholder will pay all underwriting discounts and selling commissions, if any and any related legal expenses incurred by it. We will indemnify the selling stockholders against certain liabilities, including some liabilities under the Securities Act, in accordance with the registration rights agreements, or the selling stockholders will be entitled to

contribution. We may be indemnified by the selling stockholders against civil liabilities, including liabilities under the Securities Act, that may arise from any written information furnished to us by the selling stockholders specifically for use in this prospectus, in accordance with the related registration rights agreements, or we may be entitled to contribution.

Annex B

TITAN PHARMACEUTICALS, INC.

SELLING STOCKHOLDER NOTICE AND QUESTIONNAIRE

The undersigned holder of shares of the common stock, par value $0.001 per share of Titan Pharmaceuticals, Inc. (the "Company") issued pursuant to a certain Warrant Purchase Agreement by and among the Company and the Purchasers named therein, dated as of December , 2009 (the "Agreement"), understands that the Company intends to file with the Securities and Exchange Commission a registration statement on Form S-1 (the "Resale Registration Statement") for the registration and the resale under Rule 415 of the Securities Act of 1933, as amended (the "Securities Act"), of the Registrable Securities in accordance with the terms of the Agreement. All capitalized terms not otherwise defined herein shall have the meanings ascribed thereto in the Agreement.

In order to sell or otherwise dispose of any Registrable Securities pursuant to the Resale Registration Statement, a holder of Registrable Securities generally will be required to be named as a selling stockholder in the related prospectus or a supplement thereto (as so supplemented, the "Prospectus"), deliver the Prospectus to purchasers of Registrable Securities (including pursuant to Rule 172 under the Securities Act) and be bound by the provisions of the Agreement (including certain indemnification provisions, as described below). Holders must complete and deliver this Notice and Questionnaire in order to be named as selling stockholders in the Prospectus. **Holders of Registrable Securities who do not complete, execute and return this Notice and Questionnaire within five (5) Trading Days following the date of notification from the Company that it is subject to the reporting requirements of the Securities Exchange Act of 1934 (1) will not be named as selling stockholders in the Resale Registration Statement or the Prospectus and (2) may not use the Prospectus for resales of Registrable Securities.**

Certain legal consequences arise from being named as a selling stockholder in the Resale Registration Statement and the Prospectus. Holders of Registrable Securities are advised to consult their own securities law counsel regarding the consequences of being named or not named as a selling stockholder in the Resale Registration Statement and the Prospectus.

NOTICE

The undersigned holder (the "Selling Stockholder") of Registrable Securities hereby gives notice to the Company of its intention to sell or otherwise dispose of Registrable Securities owned by it and listed below in Item (3), unless otherwise specified in Item (3), pursuant to the Resale Registration Statement. The undersigned, by signing and returning this Notice and Questionnaire, understands and agrees that it will be bound by the terms and conditions of this Notice and Questionnaire and the Agreement.

The undersigned hereby provides the following information to the Company and represents and warrants that such information is accurate and complete:

QUESTIONNAIRE

1. Name.

(a) Full Legal Name of Selling Stockholder:

_____

(b) Full Legal Name of Registered Holder (if not the same as (a) above) through which Registrable Securities Listed in Item 3 below are held:

_____

(c) Full Legal Name of Natural Control Person (which means a natural person who directly or indirectly alone or with others has power to vote or dispose of the securities covered by the questionnaire):

_____

2. Address for Notices to Selling Stockholder:

_____

_____

_____

Telephone: _____

Fax: _____

Contact Person: _____

E-mail address of Contact Person: _____

3. Beneficial Ownership of Registrable Securities Issuable Pursuant to the Purchase Agreement:

(a) Type and Number of Registrable Securities beneficially owned and issued pursuant to the Agreement:

_____

_____

_____

(b) Number of shares of Common Stock to be registered pursuant to this Notice for resale:

_____

_____

_____

4. Broker-Dealer Status:

(a) Are you a broker-dealer?

Yes ☐ No ☐

(b) If "yes" to Section 4(a), did you receive your Registrable Securities as compensation for investment banking services to the Company?

Yes ☐ No ☐

Note: If no, the Commission's staff has indicated that you should be identified as an underwriter in the Registration Statement.

(c) Are you an affiliate of a broker-dealer?

Yes ☐ No ☐

Note: If yes, provide a narrative explanation below:

_____

_____

_____

(d) If you are an affiliate of a broker-dealer, do you certify that you bought the Registrable Securities in the ordinary course of business, and at the time of the purchase of the Registrable Securities to be resold, you had no agreements or understandings, directly or indirectly, with any person to distribute the Registrable Securities?

Yes ☐ No ☐

Note: If no, the Commission's staff has indicated that you should be identified as an underwriter in the Registration Statement.

5. Beneficial Ownership of Other Securities of the Company Owned by the Selling Stockholder.

Except as set forth below in this Item 5, the undersigned is not the beneficial or registered owner of any securities of the Company other than the Registrable Securities listed above in Item 3.

Type and amount of other securities beneficially owned:

_____

_____

6. Relationships with the Company:

Except as set forth below, neither the undersigned nor any of its affiliates, officers, directors or principal equity holders (owners of 5% of more of the equity securities of the undersigned) has held any position or office or has had any other material relationship with the Company (or its predecessors or affiliates) during the past three years.

State any exceptions here:

_____

_____

_____

7. Plan of Distribution:

The undersigned has reviewed the form of Plan of Distribution attached as Annex A to the Registration Rights Agreement, and hereby confirms that, except as set forth below, the information contained therein regarding the undersigned and its plan of distribution is correct and complete.

State any exceptions here:

_____

_____

****

The undersigned agrees to promptly notify the Company of any inaccuracies or changes in the information provided herein that may occur subsequent to the date hereof and prior to the effective date of any applicable Resale Registration Statement. All notices hereunder and pursuant to the Agreement shall be made in writing, by hand delivery, confirmed or facsimile

transmission, first-class mail or air courier guaranteeing overnight delivery at the address set forth below. In the absence of any such notification, the Company shall be entitled to continue to rely on the accuracy of the information in this Notice and Questionnaire.

By signing below, the undersigned consents to the disclosure of the information contained herein in its answers to Items (1) through (7) above and the inclusion of such information in the Resale Registration Statement and the Prospectus. The undersigned understands that such information will be relied upon by the Company in connection with the preparation or amendment of any such Registration Statement and the Prospectus.

By signing below, the undersigned acknowledges that it understands its obligation to comply, and agrees that it will comply, with the provisions of the Exchange Act and the rules and regulations thereunder, particularly Regulation M in connection with any offering of Registrable Securities pursuant to the Resale Registration Statement. The undersigned also acknowledges that it understands that the answers to this Questionnaire are furnished for use in connection with Registration Statements filed pursuant to the Registration Rights Agreement and any amendments or supplements thereto filed with the Commission pursuant to the Securities Act.

I confirm that, to the best of my knowledge and belief, the foregoing statements (including without limitation the answers to this Questionnaire) are correct.

IN WITNESS WHEREOF the undersigned, by authority duly given, has caused this Questionnaire to be executed and delivered either in person or by its duly authorized agent.

Dated: _____ Beneficial Owner: _____

By: _____
Name:
Title:

PLEASE FAX A COPY OF THE COMPLETED AND EXECUTED NOTICE AND QUESTIONNAIRE, AND RETURN THE ORIGINAL BY OVERNIGHT MAIL, TO:

Loeb & Loeb LLP
345 Park Avenue
New York, New York 10154
Tel: (212) 407-4935
Fax: (212) 214-0706
Email: fstoller@loeb.com

Exhibit 10.4

Titan Pharmaceuticals, Inc.

May 16, 2009

Sunil Bhonsle
[Address]

Dear Sunil:

The Board of Directors (the "Board") of Titan Pharmaceuticals, Inc. (the "Company") is pleased to confirm the terms upon which you have recently resumed employment with the Company in the role of President. In this position, you will be primarily responsible for overseeing the day to day operations of the Company and will work with the Company's Executive Chairman in identifying business opportunities and establishing corporate strategies. You will report directly to the Board.

1. Effective Date. The effective date of this Agreement will be May 17, 2009 (the "Effective Date").

2. Compensation.

(a) Salary. During the period commencing on the Effective Date through the earlier of (i) the commencement of Iloperidone royalty payments to the Company or (ii) Feb 28, 2010 (the "Trigger Date"), you will be entitled to salary at the rate of $200,000 per annum, payment of which will be deferred until the Company's receipt of Iloperidone royalty payments or other financing that by its terms does not restrict such use, but in no event earlier than January 1, 2010 or later than March 15, 2010. You will also be entitled to reimbursement for all reasonable business expenses incurred in connection with your duties as President following your presentation to the Company of appropriate documentation. Following the Trigger Date, you shall be entitled to such cash compensation as you and the Company may mutually agree. The Company agrees that prior to the Trigger Date it shall not appoint any person other than you or Marc Rubin to serve as Chief Executive Officer of the Company. If the Company makes such an appointment following the Trigger Date and you choose to terminate your employment, the Board will consider an appropriate separation package for you.

(b) Stock Options. On the Effective Date, you will receive stock options to acquire 700,000 shares of the Company's Common Stock (the "Options"), which Options will be governed by the terms and conditions of the Company's 2002 Stock Option Plan, as amended (the "Plan"). Options to purchase 175,000 shares will vest on the Effective Date and the balance will vest in equal monthly installments over a four year period, provided; however, that the vesting of 100,000 shares will also be contingent upon the Company's sale or partnering of the Probuphine program. All of the Options are subject to accelerated vesting as hereinafter provided under paragraph l(b)(i) below. The exercise price of the Options will be determined per the Plan as of the grant date, which shall be the Effective Date.

(i) Notwithstanding the foregoing, all unvested Options automatically will become vested and exercisable immediately prior to the occurrence of a Change of Control. For the purposes of this letter, a "Change of Control" shall be deemed to occur (a) upon a sale or transfer of substantially all of the assets of the Company; (b) upon the acquisition by any person, entity or group of beneficial ownership of 50 percent or more of either the outstanding shares of common stock of the Company or the combined voting power of the then outstanding voting securities of the Company entitled to vote generally in the election of directors; or (c) upon a merger or consolidation of the Company or any of its subsidiaries with any other corporation, which results in the stockholders of the Company prior thereto continuing to represent less than 50 percent of the combined voting power of the voting securities of the Company or the surviving entity after the merger; provided, however, than en event described in (a), (b) or (c) above shall not be treated as a Change of Control, unless such event is also a change in the ownership of the Company (within the meaning of Treasury Regulation Section 409A-3(i)(5)(v)), a change in the effective control of the Company (within the meaning of Treasury Regulation Section 409A-3(i)(5)(vi)), or a change in the ownership of a substantial portion of the Company's assets (within the meaning of Treasury Regulation Section 409A-3(i)(5)(vii)).

(c) Health Benefits. Health insurance coverage for you and your family will be provided under the Company's group health plan. You will be eligible to participate in all health and medical benefits as are generally made available by the Company to other employees. In addition, you will be eligible to participate in the Company's 401(k) plan and all other sponsored employee benefit plans as they are adopted by the Company. Any benefits to which you are entitled shall be determined in accordance with the aforementioned plans and programs. The Company reserves the right to suspend, amend or terminate any employee benefit plan or program at any time.

(d) Vacation, Holidays. From the Effective Date through the Trigger Date, you will receive four (4) weeks of paid vacation, which shall accrue and otherwise be subject to the Company's established policies. Sick leave and holidays will be provided in accordance with the Company's established policies. Following the Trigger Date, you will be entitled to such vacation benefits as you and the Company may mutually agree.

(e) Required Taxes and Withholdings. Even if not otherwise specified herein, the Company shall withhold from any payments made to you (whether under this letter or otherwise) all federal, state, local or other taxes and withholdings that it believes are required by law or governmental regulation or ruling.

3. "At-Will" Employment. You or the Company may terminate your employment with the Company at any time, for any or no reason, with or without notice.

4. Non-Compete and Outside Activities. You agree that, while serving as President of the Company, you will not engage in any activity that is competitive with the Company. Also, during the term of this Agreement, approval of the Company's Board of Directors shall be required prior to your acceptance of any employment, consulting or advisory relationship with any for-profit enterprise within the biotechnology/pharmaceutical industry and notice to the Company's Board shall be required with respect to your acceptance of any role as a biotechnology/pharmaceutical industry advisor to an investment bank, fund or private equity firm. It is understood that buying and selling of securities of any public company docs not constitute a violation of this Agreement.

5. Indemnification. The Company shall indemnify, and advance expenses to, you pursuant to the terms and conditions of the Indemnification Agreement to which you are a party.

6. Company Policies, Company Property, Confidentiality and Inventions. You will comply with all of the Company's employment policies; you will keep confidential all non-public information you acquire during the course of your employment with the Company; and anything you create, develop or receive during the course of your employment with the Company, including without limitation any and all documents (whether in paper or electronic form) and equipment, shall be the exclusive property of the Company, which you agree to return to the Company immediately upon the termination of your employment with the Company, or earlier if requested by the Company. Additionally, you agree to adhere to and hereby reaffirm the terms of and your obligations under the previously executed Proprietary Information and Inventions Assignment, the terms of which are expressly incorporated herein, as if set forth in full.

7. Choice of Law. The parties agree that this letter and all matters concerning your employment with the Company and/or the termination of such employment shall be governed and construed by and in accordance with the laws of the State of California, without reference to its principles of the conflicts of laws.

8. Arbitration. Any controversy or claim arising between you and Company involving or relating to the construction or application of any terms, covenants or conditions of this letter, or any claims arising out of or relating to this letter or the breach thereof or with your employment with the Company or any termination of that employment, except with respect to prejudgment remedies, shall be settled exclusively by arbitration in San Francisco, California, pursuant to the then current Employment Arbitration Rules and Mediation Procedures of the American Arbitration Association ("AAA") (which can be found at http://www.adr.org), as well as any applicable sections of the California Code of Civil Procedure or the Federal Arbitration Act. To the extent this letter is in issue in the arbitration, the arbitrator's authority shall be strictly limited to applying and interpreting the terms and conditions of this letter. The arbitrator shall not have the authority to add to, subtract from or otherwise amend or modify the terms or conditions of this letter by implication or otherwise. The arbitral award shall be binding upon the parties. Judgment upon the award rendered by the arbitrator may be entered in any court having competent jurisdiction thereof. In connection with any arbitration under this paragraph, you represent and warrant that you and your representatives will take all reasonable steps to maintain the confidentiality of the arbitration award, including, without limitation, executing an appropriate confidentiality stipulation in a form acceptable to the Company and requesting the arbitrator or Court to place the arbitration award under seal. The arbitrator shall have authority to award any damages authorized by law, including an award of attorneys' fees and costs. The prevailing party shall be entitled to recover his/its reasonable costs and reasonable attorneys' fees to the extent permitted by applicable law; however, the Company shall pay for all costs unique to arbitration. This agreement to arbitrate shall not include (i) claims for unemployment or workers compensation insurance; (ii) to the extent required by applicable law, claims before governmental or administrative agencies (*e.g.*, the EEOC); or (iii) claims related to the National Labor Relations Act. This agreement to arbitrate shall apply to both you and Company.

9. Code Section 409A. Unless otherwise expressly provided, any payment of compensation by the Company to you, whether pursuant to this letter or otherwise, shall be made on or before March 15 of the calendar year following the calendar year in which your right to such payment vests (*i.e.*, is not subject to a "substantial risk of forfeiture" as defined by Section 409A). All payments of

"nonqualified deferred compensation" (within the meaning of Section 409A) by the Company to you are intended to comply with the requirements of Section 409A, and shall be interpreted consistent therewith. Neither the Company nor you, individually or in combination, may accelerate any such deferred payment, except in compliance with Section 409A, and no amount shall be paid prior to the earliest date on which it is permitted to be paid under Section 409A. Notwithstanding anything herein to the contrary, no amendment may be made to this letter if it would cause this letter or any payment hereunder to not be in compliance with the requirements of Section 409A.

10. Code Section 208G. Should the Company reasonably determine that the payment of compensation by the Company to you, including but not limited to compensation payable under this Agreement and/or the Options, would result in your receiving an "excess parachute payment" within the meaning of Section 280G(b) of the Internal Revenue Code of 1986, as amended, the Company shall reduce the amount of any payment or payments otherwise payable to you, as determined by the Company in its sole discretion, which reduction shall be reasonably determined by the Company to be the smallest amount which will prevent you from receiving such an "excess parachute payment."

11. Amendments. No amendment, modification or termination of any or all of the terms of this letter or any subsequent agreement or representation shall be valid and binding on the Company unless contained in writing signed by you and an authorized officer of the Company.

To accept this offer, please sign in the space below, indicating your acceptance and agreement to the terms contained herein.

Sincerely,

Eurelio Cavalier
Chairman of the Compensation Committee

Accepted by:

/s/ Sunil Bhonsle
Name: Sunil Bhonsle

Exhibit 10.5

Titan Pharmaceuticals, Inc.

May 16, 2009

Marc Rubin, MD
[Address]

Dear Marc:

The Board of Directors (the "Board") of Titan Pharmaceuticals, Inc. (the "Company") is pleased to confirm the terms upon which you will resume employment with the Company in the role of Executive Chairman reporting directly to the Board. In this position, you will be responsible for interacting with members of the financial community and will work with the Company's President in identifying business opportunities, establishing corporate strategies. You will also serve as Chairman of all meetings of the Board.

1. Effective Date. The effective date of this Agreement will be May 17, 2009 (the "Effective Date").

2. Compensation.

   (a) Salary. During the period commencing on the Effective Date through the earlier of (i) the commencement of Iloperidone royalty payments or (ii) Feb 28, 2010 (the "Trigger Date"), you will not receive any cash compensation, but will be entitled to reimbursement for all reasonable business expenses incurred in connection with your duties as Executive Chairman following your presentation to the Company of appropriate documentation. Following the Trigger Date, you may be entitled to such cash compensation as you and the Company may mutually agree.

   (b) Stock Options. On the Effective Date, you will receive stock options to acquire 1,000,000 shares of the Company's Common Stock (the "Options"), which Options will be governed by the terms and conditions of the Company's 2002 Stock Option Plan, as amended (the "Plan"). Options to purchase 250,000 shares will vest on the Effective Date and the balance will vest in equal monthly installments over a four year period, subject to accelerated vesting as hereinafter provided under paragraph l(b)(i) below. The exercise price of the Options will be determined per the Plan as of the grant date, which shall be the Effective Date.

      (i) Notwithstanding the foregoing, all unvested Options automatically will become vested and exercisable immediately prior to the occurrence of a Change of Control. For the purposes of this letter, a "Change of Control" shall be deemed to occur (a) upon a sale or transfer of substantially all of the assets of the Company; (b) upon the acquisition by any person, entity or group of beneficial ownership of 50 percent or more of either the outstanding shares of common stock of the Company or the combined

voting power of the then outstanding voting securities of the Company entitled to vote generally in the election of directors; or (c) upon a merger or consolidation of the Company or any of its subsidiaries with any other corporation, which results in the stockholders of the Company prior thereto continuing to represent less than 50 percent of the combined voting power of the voting securities of the Company or the surviving entity after the merger; provided, however, than en event described in (a), (b) or (c) above shall not be treated as a Change of Control, unless such event is also a change in the ownership of the Company (within the meaning of Treasury Regulation Section 409A-3(i)(5)(v)), a change in the effective control of the Company (within the meaning of Treasury Regulation Section 409A-3(i)(5)(vi)), or a change in the ownership of a substantial portion of the Company's assets (within the meaning of Treasury Regulation Section 409A-3(i)(5)(vii)).

(c) Health Benefits. Health insurance coverage for you and your family will be provided under the Company's group health plan. You will be eligible to participate in all health and medical benefits as are generally made available by the Company to other employees. In addition, you will be eligible to participate in the Company's 40l(k) plan and all other sponsored employee benefit plans as they are adopted by the Company. Any benefits to which you are entitled shall be determined in accordance with the aforementioned plans and programs. The Company reserves the right to suspend, amend or terminate any employee benefit plan or program at any time.

(d) Vacation, Holidays. In recognition of the flexible schedule associated with your position as Executive Chairman, you acknowledge and agree that such position does not include a vacation benefit.

(e) Required Taxes and Withholdings. Even if not otherwise specified herein, the Company shall withhold from any payments made to you (whether under this letter or otherwise) all federal, state, local or other taxes and withholdings that it believes are required by law or governmental regulation or ruling.

3. "At-Will" Employment. You or the Company may terminate your employment with the Company at any time, for any or no reason, with or without notice.

4. Non-Compete and Outside Activities. You agree that, while serving as Executive Chairman of the Board of the Company, you will not engage in any activity that is competitive with the Company. Also, while serving as Executive Chairman pursuant to this Agreement, approval of the Company's Board of Directors shall be required prior to your acceptance of any employment, consulting or advisory relationship with any for-profit enterprise within the biotechnology/pharmaceutical industry and notice to the Company's Board shall be required with respect to your acceptance of any role as a biotechnology/pharmaceutical industry advisor to an investment bank, fund or private equity firm. It is understood that buying and selling of securities of any public company does not constitute a violation of this Agreement. The Company acknowledges that you currently serve on the boards of directors of Medarex, Inc., Surface Logix and The Rogosin Institute.

5. Indemnification. The Company shall indemnify, and advance expenses to, you pursuant to the terms and conditions of the Indemnification Agreement to which you are a party.

6. Company Policies, Company Property, Confidentiality and Inventions. You will comply with all of the Company's employment policies; you will keep confidential all non-public information you acquire during the course of your employment with the Company; and anything you create, develop or receive during the course of your employment with the Company, including without limitation any and all documents (whether in paper or electronic form) and equipment, shall be the exclusive property of the Company, which you agree to return to the Company immediately upon the termination of your employment with the Company, or earlier if requested by the Company. Additionally, you agree to adhere to and hereby reaffirm the terms of and your obligations under the previously executed Proprietary Information and Inventions Assignment, the terms of which are expressly incorporated herein, as if set forth in full.

7. Choice of Law. The parties agree that this letter and all matters concerning your employment with the Company and/or the termination of such employment shall be governed and construed by and in accordance with the laws of the State of California, without reference to its principles of the conflicts of laws.

8. Arbitration. Any controversy or claim arising between you and Company involving or relating to the construction or application of any terms, covenants or conditions of this letter, or any claims arising out of or relating to this letter or the breach thereof or with your employment with the Company or any termination of that employment, except with respect to prejudgment remedies, shall be settled exclusively by arbitration in San Francisco, California, pursuant to the then current Employment Arbitration Rules and Mediation Procedures of the American Arbitration Association ("AAA") (which can be found at http://www.adr.org), as well as any applicable sections of the California Code of Civil Procedure or the Federal Arbitration Act. To the extent this letter is in issue in the arbitration, the arbitrator's authority shall be strictly limited to applying and interpreting the terms and conditions of this letter. The arbitrator shall not have the authority to add to, subtract from or otherwise amend or modify the terms or conditions of this letter by implication or otherwise. The arbitral award shall be binding upon the parties. Judgment upon the award rendered by the arbitrator may be entered in any court having competent jurisdiction thereof. In connection with any arbitration under this paragraph, you represent and warrant that you and your representatives will take all reasonable steps to maintain the confidentiality of the arbitration award, including, without limitation, executing an appropriate confidentiality stipulation in a form acceptable to the Company and requesting the arbitrator or Court to place the arbitration award under seal. The arbitrator shall have authority to award any damages authorized by law, including an award of attorneys' fees and costs. The prevailing party shall be entitled to recover his/its reasonable costs and reasonable attorneys' fees to the extent permitted by applicable law; however, the Company shall pay for all costs unique to arbitration. This agreement to arbitrate shall not include (i) claims for unemployment or workers compensation insurance; (ii) to the extent required by applicable law, claims before governmental or administrative agencies (*e.g.*, the EEOC); or (iii) claims related to the National Labor Relations Act. This agreement to arbitrate shall apply to both you and Company.

9. Code Section 409A. Unless otherwise expressly provided, any payment of compensation by the Company to you, whether pursuant to this letter or otherwise, shall be made on or before March 15 of the calendar year following the calendar year in which your right to such payment vests (*i.e.*, is not subject to a "substantial risk of forfeiture" as defined by Section 409A). All payments of "nonqualified deferred compensation" (within the meaning of Section 409A) by the Company to you are intended to comply with the requirements of Section 409A, and shall be interpreted consistent therewith. Neither the Company nor you, individually or in combination, may accelerate any such deferred payment, except in compliance with Section 409A, and no amount shall be paid prior to the earliest date on which it is permitted to be paid under Section 409A. Notwithstanding anything herein to the contrary, no amendment may be made to this letter if it would cause this letter or any payment hereunder to not be in compliance with the requirements of Section 409A.

10. Code Section 208G. Should the Company reasonably determine that the payment of compensation by the Company to the you, including but not limited to compensation payable under this Agreement and/or the Options, would result in your receiving an "excess parachute payment" within the meaning of Section 280G(b) of the Internal Revenue Code of 1986, as amended, the Company shall reduce the amount of any payment or payments otherwise payable to you, as determined by the Company in its sole discretion, which reduction shall be reasonably determined by the Company to be the smallest amount which will prevent you from receiving such an "excess parachute payment."

11. Amendments. No amendment, modification or termination of any or all of the terms of this letter or any subsequent agreement or representation shall be valid and binding on the Company unless contained in writing signed by you and an authorized officer of the Company.

To accept this offer, please sign in the space below, indicating your acceptance and agreement to the terms contained herein.

Sincerely,

Eurelio Cavalier
Chairman of the Compensation Committee

Accepted by:

/s/ Marc Rubin
Name: Marc Rubin, MD

Exhibit 10.7

OYSTER POINT MARINA PLAZA

Eighth Amendment to Office Lease

THIS EIGHTH AMENDMENT TO OFFICE LEASE (the "Eighth Amendment") is made and entered into as of April 17, 2007, by and between KASHIWA FUDOSAN AMERICA, INC., a California corporation ("LandLord") and TITAN PHARMACEUTICALS, INC., a Delaware corporation ("Tenant").

Recitals

A. Landlord and Tenant have heretofore entered into that certain lease dated February 14, 1996 (the "Lease") for premises originally described as Suite 505 (the "Premises"), initially containing approximately 3,866 rentable square feet of space in the building located at 400 Oyster Point Boulevard, South San Francisco, California (the "Building"), which forms part of the office building complex commonly known as Oyster Point Marina Plaza (the "Complex").

B. The lease has heretofore been amended by the following instruments (collectively the "Addenda"):

(i) First Amendment to Lease dated as of March 25, 1997;

(ii) Second Amendment to Lease dated as of May 22, 1998;

(iii) Third Amendment to Lease dated as of November 11, 2000;

(iv) Fourth Amendment to Lease dated as of April 9, 2001;

(v) Fifth Amendment to Lease dated as of December 5, 2001;

(vi) Sixth Amendment to Lease dated as of August 1, 2002; and

(vii) Seventh Amendment to Lease dated as of October 1, 2004.

C. The parties mutually desire to amend the terms of the Lease to terminate the Lease with respect to Suite 501 only in connection with Landlord's entering into a new lease with Moss Beach Homes (the "MBH Lease") for Suite 501 and to effect certain related changes, all on and subject to the terms and conditions hereof.

Agreement

Now, therefore, in consideration of the mutual terms and conditions herein contained and of other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1 EFFECT OF AMENDMENT. Landlord and Tenant agree that, notwithstanding anything contained in the Lease to the contrary, the provisions set forth below will be deemed to be part of the Lease and shall supersede, to the extent they differ, any contrary provisions in the Lease. Terms defined in the Lease shall have the same meanings in this Eighth Amendment, unless a different definition is set forth in this Eighth Amendment. The term *Lease* as used herein shall be deemed to include the Addenda, each of which may also be referred to separately herein.

2 EFFECTIVE DATE. The amendments and changes specified in this Eighth Amendment shall become effective on **August 1, 2007** (the "Effective Date"). Notwithstanding the foregoing, this Eighth

Amendment shall constitute the fully-binding agreement and contract of the parties from and after the date of the parties' execution and delivery of this Eighth Amendment to each other.

3 SUMMARY TABLE. The table set forth in ¶ 3 of Seventh Amendment is hereby superseded and replaced in its entirety by the following table, which shall constitute the Table under § 1.2 of the Lease for all purposes from and after the Effective Date of this Eighth Amendment.

PERIODS	SUITE NO.	RSF	USF	MONTHLY BASE RENT	TENANT'S SHARE BLDG	TENANT'S SHARE COMPLEX	BASE YEAR
July 1, 2006, through June 30, 2007	505 504	18,774 3,821	16,325 3,323	$38,111.22 $ 7,756.63	8.100% 1.649%	4.042% 0.823%	2005
July 1, 2007, through July 31, 2007	505 504	18,774 3,821	16,325 3,323	$39,049.92 $ 7,947.68	8.100% 1.649%	4.042% 0.823%	2005
August 1, 2007, through June 30, 2008	505	15,782	13,723	$33,371.60	6.809%	3.398%	2005
July 1, 2008, through July 31, 2008	505	15,782	13,723	$34,501.35	6.809%	3.398%	2005
August 1, 2008, through June 30, 2009	505	15,782	13,723	$34,092.57	6.809%	3.398%	2005
July 1, 2009, through July 31, 2009	505	15,782	13,723	$35,222.32	6.809%	3.398%	2005
August 1, 2009, through June 30, 2010	505	15,782	13,723	$34,801.28	6.809%	3.398%	2005

In the event of any conflict between the terms contained in the Table and the terms contained in subsequent paragraphs of this Eighth Amendment, the terms of the Table shall control, except as may be expressly varied in any subsequent paragraph of this Eighth Amendment.

4 CONTRACTION OF PREMISES. Beginning on the Effective Date, approximately 6,813 rentable square feet of space known as Suite 501 shall be separately demised and subtracted from Premises, which for the remainder of the Term thereafter shall be known as Suite 505, comprising approximately 15,782 rentable square feet of space for all purposes under the Lease, as shown in the Table as amended under ¶ 3 above. The Lease shall terminate on the Effective Date with respect to Suite 501 only with the same effect as if the Term had expired with respect thereto. Suite 501 is shown on the space plan attached hereto as Exhibit A and incorporated herein by reference.

4.1 Partial Termination Contingency. Landlord's and Moss Beach Homes's execution and delivery of the MBH Lease to each other shall be a condition precedent to the effectiveness of this Eighth Amendment; and if for any reason Landlord and Moss Beach Homes do not execute and deliver to each other the MBH Lease on or before May 31, 2007, this Eighth Amendment shall terminate with the same effect as if it had never existed and have no further force and effect, and the Lease shall continue in effect as it was prior to the parties' execution and delivery to each other of this Eighth Amendment.

4.2 Vacation of Premises. On or before the date which is thirty-five (35) calendar days following the date of execution of the MBH Lease by Moss Beach Homes (the "Vacation Date"), Tenant shall vacate and surrender to Landlord Suite 501 in broom clean condition as required under the Lease upon the expiration of the Term. Landlord acknowledges and agrees that Tenant and Moss Beach

Homes will be transferring cubicles and furniture which may be in the Premises after the Vacation Date but prior to the Effective Date. Tenant acknowledges and agrees that, from and after the Vacation Date, Landlord will commence the construction of a demising wall and related work to separate Suite 501 from the Premises and to prepare Suite 501 for the occupancy of Moss Beach Homes from and after the MBH Commencement Date (the "Work").

4.3 Interference with Tenant's Business. The parties acknowledge that Tenant shall be in possession of the Premises and shall conduct its business in the Premises during the performance of the Work described in ¶ 4.2 above. Landlord shall have no liability to Tenant, nor shall Tenant's obligations under the Lease be reduced or abated in any manner whatsoever, by reason of any inconvenience, annoyance, interruption, or injury to business arising from Landlord's performance of the Work or from Landlord's making any repairs or changes which Landlord is required or permitted to perform by this Eighth Amendment or by any other tenant's lease or required by law to make in or to any portion of the Complex, Property, Building, or the Premises. Landlord shall nevertheless use reasonable efforts to minimize any interference with Tenant's business in the Premises. Landlord agrees to use reasonable efforts to avoid interference with Tenant's use and occupancy of the Premises during the performance of the Work and agrees to cause the application of paint and any work generating unreasonable noise outside of normal business hours. The parties agree that Landlord shall not be liable for any damages which Tenant may incur during the performance of the Work, except to the extent that Tenant's actual damages are the result of Landlord's negligence or willful misconduct. In no circumstances shall Landlord be liable to Tenant for business interruption, lost profits, or compensatory or consequential damages of any kind by virtue of Landlord's Work. Tenant specifically agrees that any interference with Tenant's use or occupancy of the Premises caused by the performance of the Work shall not constitute a constructive eviction.

5 REDUCED PREMISES BASE RENT. The Base Rent for the Premises specified in § 1.5 of the Lease, as heretofore modified in the Addenda, shall be the amounts specified as Monthly Base Rent in the Table above for the various periods and spaces set forth in the Table from and after the Effective Date. The Base Rent calculations for the reduced Premises over the remainder of the Term is show in further detail in the "Rent Schedule" attached hereto as **Exhibit B** and incorporated herein by reference. In the event of any conflict between the provisions of the Table and those of the Rent Schedule, the Rent Schedule shall prevail.

6 PARTIAL LEASE TERMINATION PAYMENTS. Tenant shall continue to pay all rentals and other charges under the Lease with respect to Suite 501 through the Effective Date, all of which shall be prorated on a per diem basis. Any undetermined charges for reconciliation of the Rental Adjustment and sundry charges due under Article 4 of the Lease may be billed to Tenant when determined (and Tenant's obligation to pay the same shall survive termination of the Lease with respect to Suite 501), or Landlord may reasonably estimate such charges and require that Tenant pay the same within thirty (30) days after Landlord bills the same, subject to adjustment after the actual charges have been determined. As additional consideration for this Eighth Amendment, and to cover Landlord's administrative, processing, and legal fees, and to reimburse Landlord for any loss of rentals that may hereafter be sustained after the Effective Date as a result of the termination of the Lease with respect to Suite 501, Tenant shall pay to Landlord an aggregate termination fee equal to **Ninety-Nine Thousand Six Hundred Forty Dollars and Thirteen Cents ($99,640.13)** (the "Termination Fee"). The Termination Fee shall be payable in eight (8) monthly installments as set forth in the Rent Schedule and shall be due in each of such months at the same time as Tenant's payment of Base Rent is due under the Lease.

7 PARKING. The number of parking spaces specified in § 28.1 of the Lease as available for Tenant's use is hereby amended to Fifty-Five (55).

8 NOTICES. Landlord's address for notices under § 23.1 of the Lease is hereby amended as follows:

If to Landlord:

KASHIWA FUDOSAN AMERICA, INC.
c/o Cushman & Wakefield of California, Inc
Attn: Property Manager
400 Oyster Point Boulevard, Suite 117
South San Francisco, CA 94080

copy to:

Charles Dunn Real Estate Services, Inc. Agent
Attn: Oyster Point Asset Manager
4041 MacArthur Boulevard, Suite 475
Newport Beach, Ca 92260

9 NO DISCLOSURE. Tenant agrees that it shall not disclose any of the matters set forth in this Eighth Amendment or disseminate or distribute any information concerning the terms, details, or conditions hereof to any person, firm, or entity without obtaining the express written approval of Landlord.

10 NO OFFER. Submission of this Eighth Amendment is not an offer to enter into the same but a solicitation for such an offer by Tenant. Tenant agrees that its execution of this Eighth Amendment constitutes a firm offer to enter the same which may not be withdrawn for a period of thirty (30) working days after delivery to Landlord. Landlord shall not be bound by this Eighth Amendment until Landlord has executed and delivered the same to Tenant. This Eighth Amendment shall not be relied upon by any other party, individual, corporation, partnership, or other entity as a basis for terminating its lease with Landlord.

11 DEFINED TERMS. Terms used herein that are defined in the Lease shall have the meanings therein defined, unless a different definition is set forth in this Eighth Amendment. In the event of any conflict between the provisions of the Lease, and this Eighth Amendment, the terms of this Eighth Amendment shall prevail.

12 SURVIVAL. Warranties, representations, agreements, and obligations contained in this Eighth Amendment shall survive the execution and delivery of this Eighth Amendment and shall survive any and all performances in accordance with this Eighth Amendment.

13 COUNTERPARTS. This Eighth Amendment may be executed in any number of counterparts, which each severally and all together shall constitute one and the same Eighth Amendment.

14 ATTORNEYS' FEES. If any party obtains a judgement against any other party or parties by reason of breach of this Eighth Amendment, reasonable attorneys' fees and costs as fixed by the court shall be included in such judgement against the losing party or parties.

15 SUCCESSORS. This Eighth Amendment and the terms and provisions hereof shall inure to the benefit of and be binding upon the heirs, successors, and assigns of the parties.

16 AUTHORITY. Each of the individuals executing this Eighth Amendment represents and warrants that he or she is authorized to execute this Eighth Amendment on behalf of the party for whom he or she is executing this Eighth Amendment and that by his or her signature such party is legally bound by the terms, covenants, and conditions of this Eighth Amendment.

17 GOVERNING LAW. This Eighth Amendment shall be construed and enforced in accordance with the laws of the State of California.

18 CONTINUING VALIDITY OF LEASE. Except as expressly modified herein, the Lease remains in full force and effect.

19 CONFLICTS. In the event of any conflict between the provisions of this Eighth Amendment and those of the Lease or of the Addenda, the terms and conditions of this Eighth Amendment shall control.

20 LANDLORD'S REPRESENTATIVE. Tenant acknowledges and agrees that, in executing this Eighth Amendment, TAK Development, Inc., a California corporation, is acting solely in its capacity as Landlord's authorized attorney-in-fact. TAK Development, Inc. is not acquiring or assuming any legal liability or obligation to any other party executing this Eighth Amendment, and any claim or demand of any such other party arising under or with respect to this Eighth Amendment shall be made and enforced solely against Landlord.

21 WHOLE AGREEMENT. The mutual obligations of the parties as provided herein are the sole consideration for this Eighth Amendment, and no representations, promises, or inducements have been made by the parties other than as appear in this Eighth Amendment, which supersedes any previous negotiations. There have been no representations made by the Landlord or understandings made between the parties other than those set forth in this Eighth Amendment. This Eighth Amendment may not be amended except in writing signed by all the parties.

In witness whereof, the parties have executed this Eighth Amendment as of the date first above written.

Landlord:

KASHIWA FUDOSAN AMERICA, INC., a California corporation

By: **TAK Development, Inc.,** a California corporation
Its: Attorney-in-Fact

By: /s/ Toru Iwai
Toru Iwai, Vice President 5/21/07

Robert L. Delsman /s/ Robert L. Delsman
Approved as to Legal Form & Sufficiency
0007-11:33:12 2007.04.27

Tenant:

TITAN PHARMACEUTICALS, INC., a Delaware corporation

By: /s/ Sunil Bhonsle
Sunil Bhonsle
[name typed]

Its: Exec. VP & COO

OYSTER POINT MARINA PLAZA

Ninth Amendment to Office Lease

THIS NINTH AMENDMENT TO OFFICE LEASE (the "Ninth Amendment") is made and entered into as of February 11, 2009, by and between **KASHIWA FUDOSAN AMERICA, INC**., a California corporation ("Landlord") and **TITAN PHARMACEUTICALS, INC.**, a Delaware corporation ("Tenant").

Recitals

A. Landlord and Tenant have heretofore entered into that certain lease dated February 14, 1996 (the "Lease") for premises originally described as Suite 505 (the "Premises"), initially containing approximately 3,866 rentable square feet of space in the building located at 400 Oyster Point Boulevard, South San Francisco, California (the "Building"), which forms part of the office building complex commonly known as Oyster Point Marina Plaza (the "Complex").

B. The Lease has heretofore been amended by the following instruments (collectively the "Addenda"):

(i) First Amendment to Lease dated as of March 25, 1997;

(ii) Second Amendment to Lease dated as of May 22, 1998;

(iii) Third Amendment to Lease dated as of November 11, 2000;

(iv) Fourth Amendment to Lease dated as of April 9, 2001;

(v) Fifth Amendment to Lease dated as of December 5, 2001;

(vi) Sixth Amendment to Lease dated as of August 1, 2002;

(vii) Seventh Amendment to Lease dated as of October 1, 2004; and

(viii) Eighth Amendment to Lease dated as of May 22, 2007.

C. The parties mutually desire to amend the terms of the Lease to terminate the Lease with respect to a portion only of Suite 505 in connection with Landlord's entering into a lease expansion agreement with Greenspan Adjusters International, Inc. (the "Greenspan Amendment") and to effect certain related changes, all on and subject to the terms and conditions hereof.

Agreement

Now, therefore, in consideration of the mutual terms and conditions herein contained and of other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1 EFFECT OF AMENDMENT. Landlord and Tenant agree that, notwithstanding anything contained in the Lease to the contrary, the provisions set forth below will be deemed to be part of the Lease and shall supersede, to the extent they differ, any contrary provisions in the Lease. Terms defined in the Lease shall have the same meanings in this Ninth Amendment, unless a different definition is set forth in this Ninth Amendment. The term *Lease* as used herein shall be deemed to include the Addenda, each of which may also be referred to separately herein.

2 EFFECTIVE DATE. The amendments and changes specified in this Ninth Amendment shall become effective on **March 31, 2009** (the "Effective Date"). Notwithstanding the foregoing, this Ninth

Amendment shall constitute the fully-binding agreement and contract of the parties from and after the date of the parties' execution and delivery of this Ninth Amendment to each other.

3 SUMMARY TABLE. The Table set forth in ¶ 3 of Eighth Amendment is hereby superseded and replaced in its entirety by the following table, which shall constitute the Table under § 1.2 of the Lease for all purposes from and after the Effective Date of this Ninth Amendment:

PERIODS	SUITE NO.	RSF	USF	MONTHLY BASE RENT	TENANT'S SHARE BLDG	TENANT'S SHARE COMPLEX	BASE YEAR
April 1, 2009, through July 31, 2009	505	14,017	12,189	$28,750.01	6.048%	3.018%	2005
August 1, 2009, through June 30, 2010	505	14,017	12,189	$29,176.28	6.048%	3.018%	2005

In the event of any conflict between the terms contained in the Table and the terms contained in subsequent paragraphs of this Ninth Amendment, the terms of the Table shall control, except as may be expressly varied in any subsequent paragraph of this Ninth Amendment.

4 CONTRACTION OF PREMISES. Beginning at 11:59 p.m. on the Effective Date, approximately 1,765 rentable square feet of space shown on the space plan attached hereto as **Exhibit A** and incorporated herein by reference (the "Greenspan Addition") shall be separately demised and subtracted from Premises, which for the remainder of the Term thereafter shall comprise approximately 14,017 rentable square feet of space for all purposes under the Lease, as shown in the Table as amended under ¶ 3 above. The Lease shall terminate on the Effective Date with respect to The Greenspan Addition only with the same effect as if the Term had expired with respect thereto.

4.1 Vacation of Premises. On or before **March 23, 2009** (the "Vacation Date"), Tenant shall vacate and surrender the Greenspan Addition to Landlord in broom clean condition as required under the Lease upon the expiration of the Term. Landlord acknowledges and agrees that Tenant and Greenspan will be transferring cubicles and furniture which may be in the Premises after the Vacation Date but prior to the Effective Date. Tenant acknowledges and agrees that, from and after the Vacation Date, Landlord will commence the construction of a Building-standard painted and taped demising wall and related work to separate the Greenspan Addition from the Premises and to prepare the Greenspan Addition for the occupancy of Greenspan from and after the Greenspan Addition Commencement Date (the "Work").

4.2 Interference with Tenant's Business. The parties acknowledge that Tenant shall be in possession of the Premises and shall conduct its business in the Premises during the performance of the Work described in ¶ 4.1 above. Landlord shall have no liability to Tenant, nor shall Tenant's obligations under the Lease be reduced or abated in any manner whatsoever, by reason of any inconvenience, annoyance, interruption, or injury to business arising from Landlord's performance of the Work or from Landlord's making any repairs or changes which Landlord is required or permitted to perform by this Ninth Amendment or by any other tenant's lease or required by law to make in or to any portion of the Complex, Property, Building, or the Premises. Landlord shall nevertheless use reasonable efforts to minimize any interference with Tenant's business in the Premises. Landlord agrees to use reasonable efforts to avoid interference with Tenant's use and occupancy of the Premises during the performance of the Work and agrees to cause the application of paint and any work generating unreasonable noise outside of normal business hours. The parties agree that Landlord shall not be liable for any damages which Tenant may incur during the performance of the Work, except to the extent that Tenant's actual damages are the result of

Landlord's negligence or wilfull misconduct. In no circumstances shall Landlord be liable to Tenant for business interruption, lost profits, or compensatory or consequential damages of any kind by virtue of Landlord's Work. Tenant specifically agrees that any interference with Tenant's use or occupancy of the Premises caused by the performance of the Work shall not constitute a constructive eviction.

5 REDUCED PREMISES BASE RENT. The Base Rent for the Premises specified in § 1.5 of the Lease, as heretofore modified in the Addenda, shall be the amounts specified as Monthly Base Rent in the Table above for the various periods and spaces set forth in the Table from and after the Effective Date. In the event of any conflict between the provisions of the Table and those of the Rent Schedule, the Rent Schedule shall prevail.

6 PARKING. The number of parking spaces specified in § 28.1 of the Lease as available for Tenant's use is hereby amended to Forty-Nine (49).

7 NOTICES. Landlord's address for notices under § 23.1 of the Lease is hereby amended as follows:

if to Landlord:

KASHIWA FUDOSAN AMERICA, INC.
c/o Cushman & Wakefield of California, Inc.
Attn: Property Manager
400 Oyster Point Boulevard, Suite 117
South San Francisco, CA 94080

copy to:

Charles Dunn Real Estate Services, Inc., Agent
Attn: Oyster Point Asset Manager
2040 Main Street, Suite 590
Irvine, CA 92614

8 NO DISCLOSURE. Tenant agrees that it shall not disclose any of the matters set forth in this Ninth Amendment or disseminate or distribute any information concerning the terms, details, or conditions hereof to any person, firm, or entity without obtaining the express written approval of Landlord.

9 DEFINED TERMS. Terms used herein that are defined in the Lease shall have the meanings therein defined, unless a different definition is set forth in this Ninth Amendment. In the event of any conflict between the provisions of the Lease, and this Ninth Amendment, the terms of this Ninth Amendment shall prevail.

10 SURVIVAL. Warranties, representations, agreements, and obligations contained in this Ninth Amendment shall survive the execution and delivery of this Ninth Amendment and shall survive any and all performances in accordance with this Ninth Amendment.

11 COUNTERPARTS. This Ninth Amendment may be executed in any number of counterparts, which each severally and all together shall constitute one and the same Ninth Amendment.

12 ATTORNEYS' FEES. If any party obtains a judgement against any other party or parties by reason of breach of this Ninth Amendment, reasonable attorneys' fees and costs as fixed by the court shall be included in such judgement against the losing party or parties.

13 SUCCESSORS. This Ninth Amendment and the terms and provisions hereof shall inure to the benefit of and be binding upon the heirs, successors, and assigns of the parties.

14 AUTHORITY. Each of the individuals executing this Ninth Amendment represents and warrants that he or she is authorized to execute this Ninth Amendment on behalf of the party for whom he or she is executing this Ninth Amendment and that by his or her signature such party is legally bound by the terms, covenants, and conditions of this Ninth Amendment.

15 GOVERNING LAW. This Ninth Amendment shall be construed and enforced in accordance with the laws of the State of California.

16 CONTINUING VALIDITY OF LEASE. Except as expressly modified herein, the Lease remains in full force and effect.

17 CONFLICTS. In the event of any conflict between the provisions of this Ninth Amendment and those of the Lease or of the Addenda, the terms and conditions of this Ninth Amendment shall control.

18 LANDLORD'S REPRESENTATIVE. Tenant acknowledges and agrees that, in executing this Ninth Amendment, TAK Development, Inc., a California corporation, is acting solely in its capacity as Landlord's authorized attorney-in-fact. TAK Development, Inc. is not acquiring or assuming any legal liability or obligation to any other party executing this Ninth Amendment, and any claim or demand of any such other party arising under or with respect to this Ninth Amendment shall be made and enforced solely against Landlord.

19 WHOLE AGREEMENT. The mutual obligations of the parties as provided herein are the sole consideration for this Ninth Amendment, and no representations, promises, or inducements have been made by the parties other than as appear in this Ninth Amendment, which supersedes any previous negotiations. There have been no representations made by the Landlord or understandings made between the parties other than those set forth in this Ninth Amendment. This Ninth Amendment may not be amended except in writing signed by all the parties.

In witness whereof, the parties have executed this Ninth Amendment as of the date first above written.

Landlord:

KASHIWA FUDOSAN AMERICA, INC., a California corporation

By: **TAK Development, Inc.,** a California corporation
Its: Attorney-in-Fact

By: /s/ Toru Iwai
Toru Iwai, Vice President 3/12/09

Robert L. Delsman
Approved as to Legal Form & Sufficiency
Berkeley, California
/s/ Robert L. Delsman 2009.02.27 10:41:51-08'00'

Tenant:

TITAN PHARMACEUTICALS, INC., a Delaware corporation

By: /s/ Robert Farrell
Robert Farrell
[name typed]

Its: President & CEO

Exhibit A – Space Plan Showing Greenspan Addition

Exhibit 10.8

SUBLEASE

400 Oyster Point Blvd., Ste. 503
South San Francisco, California

THIS SUBLEASE AGREEMENT ("Sublease") is made and entered into on March 27, 2009 by and between TITAN PHARMACEUTICAL, INC., a Delaware corporation (hereinafter "Sublessor"), and ANESIVA, INC., a Delaware corporation (hereinafter "Sublessee").

WHEREAS

A. Sublessor is "Tenant" under that certain Office Lease dated February 14, 1996, as amended by that certain First Amendment to Lease dated March 25, 1997, Second Amendment to Lease dated May 22, 1998, Third Amendment to Lease dated November 11, 2000, Fourth Amendment to Lease dated April 9, 2001, Fifth Amendment to Lease dated December 5, 2001, Sixth Amendment to Lease dated August 1, 2002, Seventh Amendment to Lease dated October 1, 2004, Eight Amendment to Lease dated May 22, 2007, and Ninth Amendment to Lease dated February 11, 2009 (collectively, the "Master Lease") by and between Kashiwa Fudosan America, Inc., as landlord (the "Master Landlord"), and Sublessor, as tenant, for office space more particularly described therein ("Leased Premises") and located in an office building located in the City of South San Francisco, County of San Mateo, State of California, commonly known as 400 Oyster Point Blvd. ("Building"); and

B. Sublessor desires to sublease to Sublessee and Sublessee desires to sublease from Sublessor, a portion of the Leased Premises containing exactly sixty-eight hundred seventy-one square feet (6.871 s.f.) of interior space in a portion of the Leased Premises identified as Suite 505 (the "Subleased Premises") and as more particularly depicted on Exhibit A annexed hereto and made a part hereof by reference, which Subleased Premises, once demised from the Leased Premises, will be known and designated as Suite 503.

NOW THEREFORE, for and in consideration of the Subleased Premises and mutual covenants herein contained and for other good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. Demise. Sublessor does hereby sublease and demise to Sublessee, and Sublessee does hereby hire from Sublessor, the Subleased Premises, together with the licenses, rights, privileges and easements appurtenant thereto including, without limitation, the non-exclusive right in and to the use of any and all common or public areas or facilities for the benefit of occupants of the Building.

2. Term. Subject to Paragraph 11 below, the term of this Sublease shall commence on April 1, 2009 (the "Commencement Date"), and shall expire on June 29, 2010, unless sooner

terminated or further extended pursuant to the provisions hereof (the "Term"). In order to induce Sublessee to execute this Sublease and in consideration thereof. Sublessor covenants, warrants and represents to Sublessee that the Master Lease is, as of the Effective Date, and will be, as of the Commencement Date, in full force and effect and the then-remaining term thereof will not expire before the expiration of the Term hereof.

3. Early Entry. Any time between the Effective Date and the Commencement Date, Sublessee shall have the right to enter the Subleased Premises to (a) inspect the physical condition thereof and conduct its due diligence investigation to determine the suitability of the Subleased Premises for Sublessee's intended use and operation, (b) inspect Sublessor's Work (as hereinafter defined), and/or (c) to do such other and further things as Sublessee may deem appropriate so long as Sublessee complies with all of the terms and conditions hereof; and provided, however, that such entry does not unreasonably interfere with Sublessor's performance of Sublessor's Work. Such early entry shall not be construed as an acceptance of the Subleased Premises by Sublessee under the provisions of this Sublease, as an attempt to violate, negate or avoid Master Landlord's rights under Article 17 of the Master Lease, or as evidence of the occurrence of the Commencement Date hereunder.

4. Rent. Commencing on the Commencement Date. Sublessee shall pay to Sublessor as full and complete rent for the Subleased Premises an amount equal to One and 30/100 Dollars ($1.30) per square foot of the Subleased Premises (i.e., 6,871 s.f.) per month, payable in advance, on the first (1st) day of each calendar month of the Term hereof ("Rent"); provided, however, that Rent shall fully and completely abate from the Commencement Date through May 31, 2009 (the "Free Rent Period"). Notwithstanding the foregoing, Sublessee shall pay to Sublessor on the Commencement Date an amount equal to one month's Rent, which Sublessor shall apply to the first payment of Rent that becomes due and payable by Sublessee after the expiration of the Free Rent Period. In the event any portion of the Term shall constitute less a full calendar month, Rent for such partial calendar month shall be prorated on a day-for-day basis such that Sublessee shall pay Rent only for the portion of each such partial calendar month as falls within the Term.

5. Security Deposit. Immediately after the Effective Date hereof (and no later than the Commencement Date), Sublessee shall deposit with Sublessor an amount equal to one month's Rent, to be held and retained by Sublessor throughout the Term and returned by Sublessor to Sublessee promptly at the expiration or earlier termination of this Sublease, less any monies reasonably retained by Sublessor as reimbursement of reasonable expenses actually incurred by Sublessor to repair damage to or facilitate cleaning of the Subleased Premises that Sublessee failed to perform to the standards required by the Master Lease.

6. Sublessor's Work. Sublessor, at its sole cost and expense, shall supply the existing furniture located within the Subleased Premises for Sublessee's exclusive use ("Sublessor's Work"). In addition to the foregoing, Sublessor and Sublessee agree to diligently and in good faith coordinate mutual on-going access to and operation of a common server room located in the Subleased Premises including, without limitation, the phone system(s) therein, such that both Sublessor and Sublessee shall have use of and access to such system(s) throughout the Term.

7. Use. The Subleased Premises shall be used and occupied for executive and general offices and for no other purposes without Sublessor's prior written consent, not to be unreasonable conditioned, withheld or delayed.

8. Master Lease. Sublessee acknowledges and agrees that Sublessor has provided Sublessee with a copy of the Master Lease inclusive of all amendments as more particularly described in the recitals hereof. With knowledge of the content of the Master Lease, Sublessor and Sublessee hereby agree that:

a. This Sublease and all rights of Sublessee hereunder and with respect to the Subleased Premises are subject and subordinate to the terms, conditions and provisions of the Master Lease subject, however, to the terms and conditions of any Recognition Agreement (as defined in Paragraph 14 below). As to the Subleased Premises only, Sublessee hereby assumes and agrees, jointly and severally with Sublessor, to perform faithfully and be bound by all of Sublessor's obligations, covenants, restrictions and agreements under the Master Lease, except that as between Sublessor and Sublessee, Sublessee shall not be liable or responsible for any monetary obligations under the Master Lease including, without limitation, Rent, Operating Expenses, Real Estate Taxes and Code Costs, which Sublessor hereby agrees shall be solely the liability and responsibility of Sublessor and with respect to which Sublessor hereby indemnifies Sublessee.

b. Without limiting the foregoing:

i. Sublessee shall not make any material changes, alterations or additions in or to the Subleased Premises without first obtaining Sublessor's prior written consent, which shall not be unreasonably withheld, conditioned or delayed; provided, however. Sublessee shall not be required to obtain Sublessor's consent in any circumstance under which Sublessor is not required under Article 9 of the Master Lease to obtain the Master Landlord's consent therefor.

ii. If Sublessee desires to take any other action, which, if such action were taken by Sublessor would require Master Landlord's consent under the Master Lease, Sublessee shall not take such action without first obtaining the written consent of Master Landlord; provided, however, if the Master Landlord refuses to acknowledge Sublessee's request for consent due to lack of privity or otherwise, Sublessor shall make the request, in form and substance approved by Sublessee, for Master Landlord's consent pursuant to the Master Lease for and on behalf of Sublessee.

iii. Rights of the Master Landlord, its agents and representatives under the Master Lease to enter the Leased Premises shall inure to the benefit of Sublessor, its agents and representatives, with respect to the Subleased Premises if and to the extent such entry by Sublessor is reasonably necessary to facilitate the entry by Master Landlord under the Master Lease and provided that Sublessor shall have given Sublessee comparable notice of such entry under this Sublease as the Master Landlord is required to give Sublessor under the Master Lease.

iv. Sublessee shall maintain insurance of the kinds and in the amounts required to be maintained by Sublessor under the Master Lease, except that all policies of liability insurance shall name as additional insureds both the Master Landlord and the Sublessor.

v. Sublessee shall not intentionally or negligently take any action or fail to take any action that is reasonably likely to cause an Event of Default under the Master Lease or that would cause the Master Lease to be cancelled or terminated.

c. Notwithstanding anything contained herein or in the Master Lease to the contrary, Sublessor and Sublessee hereby agree as follows:

i. Except as otherwise expressly set forth herein, Sublessee shall not assign, mortgage, pledge, hypothecate or otherwise transfer or permit the transfer of Sublessee's interest in this Sublease, by operation of law or otherwise, or permit the use of the Subleased Premises or any part thereof by any person other than Sublessee, its officers, directors, partners, employees or agents, or further sublet the Subleased Premises or any part thereof, without the prior written consent of Sublessor, which shall not be unreasonably withheld, conditioned or delayed, and if and to the extent

required under the Master Lease, the prior written consent of Master Landlord. For the purposes hereof, Sublessor and Sublessee acknowledge and agree that as to Sublessor's consent right under this Paragraph 8(c)(i), it shall constitute reasonable grounds to deny consent to an assignment or further sublease if the proposed assignee or sub-subtenant (together with any guarantor) is not, in Sublessor's reasonable judgment, financially capable of paying the Rent hereunder. Notwithstanding the foregoing, in the event Sublessee is a publicly traded company, the public trading of Sublessee's shares (including pink sheets and counter trading) shall not be deemed a transfer under this Sublease. In addition to and not in limitation of the foregoing, Sublessee shall have the right from time to time, without the consent of Sublessor to assign Sublessee's interest in this Sublease and/or to sublet or license all or any portion of the Subleased Premises: (i) to an affiliate (as defined in Section 17.1.1 of the Master Lease) of Sublessee; (ii) to any entity which purchases all or substantially all of the assets of Sublessee; (iii) in conjunction with any merger, acquisition, consolidation or public offering of stock or other interests involving Sublessee; and/or (v) as may be required by any law. If Sublessor shall give its consent under this Paragraph 8(c)(i), Sublessee shall, in consideration therefor, pay to Sublessor one hundred percent (100%) of all sums and other consideration actually paid to Sublessee by the assignee or sub-subtenant for or by reason of such assignment or sub-subletting as such sums exceed any amounts payable by Sublessee to Sublessor hereunder.

ii. Rent shall not abate by reason of any damage to or destruction of the Subleased Premises, the Leased Premises or the Building or any part thereof, unless, and then only with respect to the same period of time that, rental and such other payments are actually abated under the Master Lease with respect to the Subleased Premises on account of such damage or destruction.

iii. Sublessee shall not have any right to any portion of the proceeds of any award for a condemnation or other taking, or a conveyance in lieu thereof, of all or any portion of the Building, the Leased Premises or the Subleased Premises; provided, however, that Sublessee shall have the right to file any separate claim available to Sublessee for any taking of Sublessee's personal property and fixtures belonging to Sublessee and removable by Sublessee on expiration of the Term (excluding Sublessor's Work), and for moving expenses and/or

relocation costs, so long as any such claim does not diminish the award available to Sublessor and/or Master Landlord and so long as any such claim is payable separately to Sublessee.

iv. Sublessee shall not benefit from (i) any rent concessions or abatements, (ii) any construction allowances, (iii) any right to renew or extend the term of the Master Lease, (iv) any right to terminate the Master Lease, or (v) any right of first refusal or first offer under the Master Lease; provided, however, that the foregoing shall not diminish any similar right inuring to Sublessee if expressly set forth herein.

v. All of the terms, covenants, conditions and provisions of the Master Lease shall be and hereby are incorporated into the Sublease as if fully set forth herein, except to the extent otherwise expressly provided to the contrary or to the extent of a conflict between this Sublease and the Master Lease, in which event the terms, covenants, conditions and provisions of the Sublease shall control.

vi. Subject to any Recognition Agreement, the Term of this Sublease shall terminate, without liability of Sublessor to Sublessee, if the Master Landlord terminates the Master Lease.

9. Default.

a. It shall be an Event of Default upon the happening of any of the following:

i. Sublessee fails to pay any Rent hereunder and such failure continues for five (5) days after Sublessee's receipt of written notice thereof from Sublessor to Sublessee;

ii. Sublessee fails to pay any other amount due from Sublessee hereunder for which Sublessee has received written notice from Sublessor that such amount is due, and such failure continues for ten (10) days after Sublessee's receipt of written notice of such failure to pay from Sublessor to Sublessee;

iii. Sublessee fails to perform or observe any other material covenant or agreement set forth in this Sublease and such failure continues for thirty (30) days after Sublessee's receipt of written notice thereof from

Sublessor to Sublessee (it being intended in connection with a default not susceptible of being cured with due diligence within said thirty (30) day period that the time allowed Sublessee within which to cure same shall be extended for such period as may be necessary to complete same with all due diligence); or

iv. Any other event occurs that involves Sublessee or is caused by Sublessee within the Subleased Premises and with regard to which (y) Sublessor has received notice from Master Landlord that the same constitutes a default under the Master Lease, and (z) Sublessor has provided Sublessee with a copy of such written default notice from Master Landlord, and Sublessee fails to cure such default as claimed by Master Landlord before that default matures into an Event of Default under the Master Lease, but only to the extent that Sublessee is responsible for the event giving rise to Master Landlord's default notice.

b. It shall be an Event of Sublessor Default upon the happening of any of the following:

i. Sublessor fails to pay timely any Rent, Operating Expenses, Real Estate Taxes, Code Costs or other amounts due and payable under the Master Lease and such failure becomes an Event of Default under the Master Lease;

ii. Sublessor fails to perform or observe any other covenant or agreement set forth in the Master Lease and such failure becomes an Event of Default under the Master Lease; or

iii. Sublessor fails to perform or observe any covenant or agreement set forth in this Sublease and such failure continues for thirty (30) days after written notice thereof from Sublessee to Sublessor (it being intended in connection with a default not susceptible of being cured with due diligence within said thirty (30) day period that the time allowed Sublessor within which to cure same shall be extended for such period as may be necessary to complete same with all due diligence).

c. If there shall be an Event of Default by Sublessee or an Event of Sublessor Default by Sublessor ("Defaulting Party"), then Sublessor or Sublessee, respectively, as the case may be ("Non-Defaulting Party"), may exercise all rights and remedies available to it at law or in equity including, without limitation, all

rights and remedies afforded the Master Landlord under the Master Lease. If the Defaulting Party fails or refuses to make any payment or perform any covenant or agreement to be performed hereunder, the Non-Defaulting Party may make such payment or undertake to perform such covenant or agreement (but shall not have any obligation to do so). In such event, any actual and reasonable amounts so paid or incurred by the Non-Defaulting Party including, without limitation, all costs, expenses and reasonable attorneys' fees (collectively "Cure Costs"), shall be immediately due and payable by the Defaulting Party to the Non-Defaulting Party. If Sublessee is the Defaulting Party, Cure Costs shall be deemed to be Rent, and if Sublessor is the Defaulting Party, Sublessee shall be entitled to offset its Cure Costs against Rent.

10. Indemnity. Sublessee covenants to defend and indemnify Sublessor and hold Sublessor harmless from and against any and all claims, actions, damages, liabilities and expenses, including reasonable attorneys' fees, (i) in connection with loss of life, personal injury and/or damage to property arising from or out of any occurrence in or upon the Subleased Premises, or any part thereof, except to the extent arising from Sublessor's and/or Master Landlord's access and entry into the Subleased Premises, or (ii) occasioned wholly or in part by any act or omission of Sublessee, its agents, contractors, employees, servants, or licensees, except to the extent such claims, actions, damages, liability and expense are caused by the acts or omissions of Sublessor, its agents, contractors, licensees, employees, or Master Landlord, or any other tenants and occupants of the Building, or for which any of said parties may be statutorily liable. Sublessor covenants to defend and indemnify Sublessee and hold Sublessee harmless from and against any and all claims, actions, damages, liabilities and expenses, including reasonable attorneys' fees, (y) in connection with loss of life, personal injury and/or damage to property arising from or out of any occurrence in or upon any portion(s) of the Leased Premises (excluding the Subleased Premises, except to the extent arising from Sublessor's and/or Master Landlord's access and entry into the Subleased Premises), or (z) occasioned wholly or in part by any act or omission of Sublessor, its agents, contractors, employees, servants, subtenants (other than Sublessee), occupants or licensees, except to the extent such claims, actions, damages, liability and expense are caused by the acts or omissions of Sublessee its agents, contractors, licensees or employees, or for which any of said parties may be statutorily liable. In addition to and not in limitation of the foregoing. Sublessor agrees that Sublessor shall be solely responsible for the fees and commissions of any broker utilized in connection with this Sublease and agrees to indemnify, defend and hold Sublessee harmless against any and all claims by any person for brokerage commissions or fees arising out of any conversation, negotiations or other dealings with any other broker regarding this Sublease.

11. Extension Option. If Sublessor elects under Section 1.7 of the Master Lease to exercise Sublessor's Extension Option, then within ten (10) days after Sublessor gives Master

Landlord written notice of Sublessor's irrevocable election to exercise such option, Sublessor also shall give Sublessee written notice of such exercise by Sublessor, which notice to Sublessee shall specify the extended date on which the Master Lease will now expire ("Sublessor's Extension Notice"). Within ninety (90) days after Sublessee's receipt of Sublessor's Extension Notice, Sublessee shall notify Sublessor of its intention to extend the Term hereof for the equal number of days by which the Master Lease was so extended ("Sublessee's Extension Notice"). If Sublessee fails to give Sublessee's Extension Notice, Sublessee shall be deemed to have waived its rights under this Paragraph 11 and this Sublease shall expire as initially set forth in Paragraph 2 above. If Sublessee delivers Sublessee's Extension Notice, then the Term hereof shall be deemed extended so as to expire on the calendar day immediately preceding the calendar day on which the Master Lease will expire and all terms, conditions and provisions of this Sublease shall remain in full force and effect throughout such extended Term.

12. Parking. Sublessee and its employees, invitees, agents, customers, concessionaires and licensees shall have the nonexclusive right, in common with Sublessor, to use a portion of the fifty-six (56) unassigned parking spaces allocated to Sublessor under the Master Lease, at no cost to Sublessee, together with all means of ingress to and egress from the aforesaid parking to and from public streets and roads bordering the Building now or hereafter made available or maintained by Master Landlord. The portion of Sublessor's parking space to which Sublessee shall be entitled to use shall be calculated on a proportional basis, such that Sublessee shall be entitled to a percentage of such total number of Sublessor's parking spaces as the Rentable Square Footage of the Subleased Premises bears to the rental square footage of the entire Leased Premises.

13. Master Landlord's Consent. Sublessor and Sublessee acknowledge and agree that this Sublease is subject to the consent of Master Landlord under Article 17 of the Master Lease. Sublessor covenants, warrants and represents to Sublessee that the Master Landlord has waived its recapture right under Section 17.3 of the Master Lease and has otherwise consented to the transaction contemplated by this Sublease, but has not yet approved the form of this Sublease as required by Section 17.4(f) of the Master Lease. In light of the Commencement Date, Sublessor and Sublessee nevertheless have agreed to execute this Sublease prior to Master Landlord's approval of the form hereof. As such, Sublessor covenants and agrees that within one (1) business day after the Effective Date hereof, Sublessor shall deliver to Master Landlord a copy of this fully executed Sublease in order to obtain Master Landlord's approval thereof. If, in response thereto, Master Landlord requires revision(s) to the Sublease, Sublessor immediately shall give Sublessee written notice of such required change(s) and Sublessor and Sublessee shall promptly and in good faith enter into a mutually agreeable amendment to this Sublease to incorporate such required change(s) of Master Landlord: provided, however, in no event shall either party be required to agree to any amendment that is inconsistent or in conflict with the terms of that certain Letter of Intent dated February 26, 2009, the terms of which Master

Landlord has previously given its consent. Sublessor agrees to indemnify, defend and hold Sublessee harmless against any and all claims by Master Landlord arising from or in connection with this Sublease including, without limitation, Sublessee's early entry into the Subleased Premises as set forth herein or the failure by Master Landlord to have waived its recapture right or consent to this Sublease.

14. Recognition Agreement. Sublessor covenants and agrees that within one (1) business day after the Effective Date hereof, Sublessor shall deliver to Master Landlord a proposed form of Recognition Agreement, prepared by and delivered to Sublessor by Sublessee, and Sublessor shall thereafter use commercially reasonable efforts to obtain from Master Landlord, and deliver to Sublessee, such fee owner recognition agreement in a form reasonably satisfactory to Sublessee, which shall include the following provisions: (i) the Master Landlord will not, in the exercise of any of the rights arising or which may arise out of such Sublease, disturb or deprive Sublessee in or of its possession or its rights to possession of the Subleased Premises or of any right or privilege granted to or inuring to the benefit of Sublessee under this Sublease; and (ii) in the event of the termination of the Master Lease, Sublessee shall not be made a party in any removal or eviction action or proceeding, nor shall Sublessee be evicted or removed of its possession or its right of possession of the Subleased Premises, and this Sublease shall continue in full force and effect as a direct lease between the Master Landlord and Sublessee for the remainder of the Term and on the same terms and conditions as contained herein, without the necessity of executing a new lease ("Recognition Agreement").

15. Notices. Any notice or demand given or required to be given hereunder shall be made in writing, delivered by certified or registered mail, return receipt requested, or by reliable overnight courier, to the address of the respective parties set forth below and any such notice or demand shall be deemed received as of the date delivery is confirmed or refused:

Sublessor: Titan Pharmaceuticals, Inc.
400 Oyster Point Blvd., Suite 505
South San Francisco, California 94080
Attention: Mr. Robert Farrell

Sublessee: Anesiva, Inc.
400 Oyster Point Blvd., Suite 503
South San Francisco, California 94080
Attention: Vice President – Legal

With a copy to:
Patras Williams & Johnson, LLC
175 Quincy Court, Unit B
Hopelawn, New Jersey 08861
Attention: Amy M. Williams

Sublessor and Sublessee may from time to time designate any other or additional address(es) by the giving of written notice thereof pursuant to this provision.

16. General.

a. Binding Effect. Subject to the terms, conditions and provisions hereof, this Sublease shall be binding on the parties hereto and their successors and assigns. Notwithstanding the foregoing, the submission of this Sublease for examination and negotiation does not constitute an offer to lease by either party hereto and this Sublease shall only become effective and binding on the execution and delivery hereof by both Sublessor and Sublessee. Electronic and/or facsimile signatures on this Sublease shall be deemed as effective and enforceable as original signatures; provided, however, each party shall be obligated, on the request of the other party, to provide such original signature promptly if and when so requested.

b. Governing Law. This Sublease shall be governed and construed in accordance with the laws of the State of California, without reference to its principles on conflicts of law.

c. Attorneys' Fees. In any action or proceeding hereunder (whether to enforce the terms and provisions of an indemnity or otherwise), the prevailing party shall be entitled to recover from the other party the prevailing party's reasonable costs and expenses in such action or proceeding, including reasonable attorneys' fees, costs and expenses. Except as otherwise set forth herein, if either party is sued by a third party as a result of a violation of a covenant, representation or warranty herein contained by the other party hereto, then the party who has violated the covenant, representation or warranty shall be responsible for the reasonable costs and expenses in such action or proceeding against the non-violating party, including reasonable attorneys' fees, costs and expenses, except to the extent provided otherwise in Paragraph 13 above.

d. Quiet Enjoyment. So long as there is no Event of Default under this Sublease, Sublessee shall have quiet enjoyment of the Subleased Premises for the Term, subject to all the terms and conditions of this Sublease.

e. Defined Terms. Any terms used, but not otherwise defined herein, shall have the meanings ascribed to them in the Master Lease.

f. Construction. In construing this Sublease, feminine or neuter pronouns shall be substituted for those masculine in form and *vice versa*, and plural terms shall be substituted for singular and singular for plural in any place in which the context so requires. This Sublease shall be construed without regard to: (a) the identity of the party who drafted the various provisions hereof, and (b) the addition or deletion of text made during the negotiation of this Sublease. Moreover, each and every provision of this Sublease shall be construed as though all parties hereto participated equally in the drafting thereof. As a result of the foregoing, any rule or construction that a document is to be construed against the drafting party shall not be applicable hereto.

g. Paragraph Headings. The paragraph headings in this Sublease are for convenience only and do not in any way limit or simplify the terms and provisions of this Sublease, nor should they be used to determine the intent of the parties.

h. Partial Invalidity. If any term, covenant, condition or provision of this Sublease or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, then the remainder of this Sublease or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable shall not be affected thereby and each term, covenant, condition and provision of this Sublease shall be valid and be enforced to the fullest extent permitted by law.

i. Waiver. The failure of either party to seek redress for violation, or to insist upon strict performance, of any term, covenant or condition contained in this Sublease shall not prevent a similar subsequent act from constituting a default under this Sublease.

j. Entire Agreement. This instrument contains the entire and only agreement between the parties and no oral statements or representations or written matter not contained in this instrument shall have any force or effect. This Sublease shall not be amended or modified in any way except by a writing executed by both parties. All of the exhibits attached to this Sublease are incorporated into this Sublease by reference and for all purposes are a part of this Sublease.

k. Relationship of Parties. The relationship between the parties hereto is solely that of landlord and tenant and nothing in this Sublease shall be construed as creating a partnership or joint venture between the parties hereto, it being the express intent of Sublessor and Sublessee that the business of Sublessee at the Subleased Premises and elsewhere, and the good will thereof, shall be and remain the sole property of Sublessee.

l. Force Majeure. If either party hereto shall be delayed or hindered in, or prevented from, the performance of any act required under this Sublease by reason of strikes, lockouts, labor troubles, failure of power, riots, insurrection, war, governmental action or other reasons of a like nature beyond the reasonable control of the party delayed in performing works or doing acts required under the terms of this Sublease, then performance of such act shall be excused for the period of the delay, and the period of the performance of any such act shall be extended for a period equivalent to the period of such delay.

m. Limitation of Liability. Sublessor, its successors and assigns, shall look solely to the assets, if any, of Sublessee and its successors and assigns, for the satisfaction of any claim arising from or under this Sublease and shall not seek to impose personal liability on any shareholder, officer, director, member or employee of Sublessee or any of its affiliates.

n. Consents. Except as may be otherwise expressly set forth in this Sublease, whenever under this Sublease provision is made for either party's securing the consent or approval of the other party, (a) such consent or approval shall be in writing and shall not be unreasonably withheld, delayed or conditioned, and (b) in all matters contained herein, both parties shall have an implied obligation of reasonableness.

o. Costs. Whenever this Sublease requires the performance of an act by any party, such party shall perform the act at its own cost and expense, unless otherwise expressly provided to the contrary in this Sublease.

p. Survival of Obligations. The obligation to pay any sums due to either party from the other that by the terms herein would not be payable, or are incapable of calculation, until after the expiration or sooner termination of this Sublease, shall survive and remain a continuing obligation until paid. All indemnity obligations under this Sublease shall survive the expiration or earlier termination of this Sublease.

q. Sublessee's Trade Name. Sublessor shall not make use of Sublessee's trade name.

r. Counterparts. This instrument may be executed in several counterparts, each of which shall be deemed an original. The signatures to this instrument may be executed on separate pages, and when attached to this instrument, shall constitute one complete document.

IN WITNESS WHEREOF, the parties have duly executed and delivered this Sublease as of the latest of the dates set forth next to the parties' respective signatures below, which latest date is and shall be deemed to the Effective Date hereof and shall be set forth on the first page hereof.

SUBLESSOR:

TITAN PHARMACEUTICALS, INC.

Attest:

_____

By: /s/ Robert Farrell
Name: Robert Farrell
Title: President & CEO
Date: March 26, 2009

SUBLESSEE:

ANESIVA, INC.

Attest:

_____

By: /s/ Michael Kranda
Name: Michael Kranda
Title: President & CEO
Date: March 27, 2009

/s/ Robert L. Delsman

Robert L. Delsman
Kashiwa Fudosan America, Inc. as Master Landlord by its Secretary hereby consents to this sublease agreement.
Berkeley, California
2009.03.27 17:49:58-07'00'

Exhibit 10.12

LOAN AND SECURITY AGREEMENT

THIS LOAN AND SECURITY AGREEMENT (this "**Agreement**") dated as of December 18, 2009 between **OXFORD FINANCE CORPORATION** ("**Lender**"), and **TITAN PHARMACEUTICALS, INC.**, a Delaware corporation ("**Borrower**"), provides the terms on which Lender shall lend to Borrower and Borrower shall repay Lender. The parties agree as follows:

1 ACCOUNTING AND OTHER TERMS

Accounting terms not defined in this Agreement shall be construed following GAAP. Calculations and determinations must be made following GAAP. Capitalized terms not otherwise defined in this Agreement shall have the meanings set forth in Section 13. All other terms contained in this Agreement, unless otherwise indicated, shall have the meaning provided by the Code to the extent such terms are defined therein.

2 LOAN AND TERMS OF PAYMENT

2.1 Promise to Pay. Borrower hereby unconditionally promises to pay Lender the outstanding principal amount of the Credit Extension and accrued and unpaid interest thereon and any other amounts due hereunder as and when due in accordance with this Agreement.

2.1.1 Growth Capital Loan Facility.

(a) Availability. Subject to the terms and conditions of this Agreement, on the Closing Date Lender shall make one (1) advance to Borrower in the amount of Three Million Dollars ($3,000,000) (the "Growth Capital Advance").

(b) Repayment. Borrower shall make monthly payments of interest only, in arrears, commencing on the first day of the month following the month in which the Funding Date occurs and continuing thereafter on the first day of each successive calendar month during the Interest Only Period. Commencing on the Growth Capital Amortization Date, Borrower shall make thirty (30) equal monthly payments of principal and interest, in arrears, which would fully amortize the outstanding amount of the Growth Capital Advance. All unpaid principal and accrued and unpaid interest and all other amounts due on account of the Growth Capital Advance are due and payable in full on the Maturity Date. The Growth Capital Advance may only be prepaid in accordance with Sections 2.1.1(d) or 2.1.1(e).

(c) Final Payment. On the Maturity Date, Borrower shall pay, in addition to the unpaid principal and accrued interest and all other amounts due on such date with respect to the Growth Capital Advance, an amount equal to the Final Payment.

(d) Permitted Prepayment. Borrower shall have the option to prepay all, but not less than all, of the Growth Capital Advance made by Lender under this Agreement, provided Borrower, (i) provides written notice to Lender of its election to prepay the Growth Capital Advance at least fifteen (15) days prior to such prepayment, and (ii) pays, on the date of such prepayment (A) all outstanding principal plus accrued interest on the Growth Capital Advance, (B) the Final Payment, plus (C) all other sums that have become due and payable, including Lender Expenses, if any, and interest at the Default Rate with respect to any past due amounts.

(e) Mandatory Prepayment Upon an Acceleration. If the Growth Capital Advance is accelerated following the occurrence of an Event of Default, Borrower shall immediately pay to Lender an amount equal to the sum of: (i) all outstanding principal plus accrued and unpaid interest on the Growth Capital Advance, (ii) the Final Payment, plus (iii) all other sums, if any, that shall have become due and payable, including interest at the Default Rate with respect to any past due amounts.

2.2 Payment of Interest on the Credit Extension.

(a) Interest Rate. Subject to Section 2.2(b), the principal amount outstanding under the Growth Capital Advance shall accrue interest, which interest shall be payable in arrears, at a fixed per annum rate equal to the greater of (i) 13.00% or (ii) the LIBOR Rate, as of the Funding Date, plus the LIBOR Margin, which interest shall be payable monthly, in arrears, in accordance with Section 2.2(e) below.

(b) Default Rate. Immediately upon the occurrence and during the continuance of an Event of Default, Obligations shall bear interest at a rate per annum which is five percentage points above the rate that is otherwise applicable thereto (the "**Default Rate**"). Payment or acceptance of the increased interest rate provided in this Section 2.2(b) is not a permitted alternative to timely payment and shall not constitute a waiver of any Event of Default or otherwise prejudice or limit any rights or remedies of Lender.

(c) 360-Day Year. Interest shall be computed on the basis of a 360-day year consisting of twelve (12) months of thirty (30) days.

(d) Debit of Accounts. In the event not received by Lender when due, or as Lender and Borrower may otherwise agree in writing, Lender may debit any of Borrower's deposit accounts, including the Designated Deposit Account, through automatic debit of such accounts, Automated Clearinghouse ("ACH") or other transfers, for principal, interest and other Obligations owing by Borrower to Lender when due. These debits shall not constitute a set-off.

(e) Payments. Unless otherwise provided, interest is payable monthly, in arrears, on the first calendar day of each month. Payments of principal and/or interest received after 12:00 p.m. Pacific time are considered received at the opening of business on the next Business Day. When a payment is due on a day that is not a Business Day, the payment is due the next Business Day and additional fees or interest, as applicable, shall continue to accrue.

2.3 Fees. Borrower shall pay to Lender:

(a) Facility Fee. A fully earned, non-refundable loan fee of Sixty Thousand Dollars ($60,000) (the "Facility Fee"), receipt of Twenty Five Thousand Dollars ($25,000) of which hereby is acknowledged by Lender;

(b) Final Payment. The Final Payment when due on the Maturity Date or pursuant to the terms of Sections 2.1.1(d) or 2.1.1(e); and

(c) Lender Expenses. All Lender Expenses (including reasonable attorneys' fees and expenses, plus reasonable expenses for documentation and negotiation of this Agreement; not to exceed $25,000 in the aggregate through the Closing Date, without prior notice to Borrower) incurred through and after the Closing Date, when due.

3 CONDITIONS OF LOANS

3.1 Conditions Precedent to Credit Extension. Lender's obligation to make the Credit Extension is subject to the condition precedent that Borrower shall consent to or have delivered, in form and substance satisfactory to Lender, such documents, and completion of such other matters, as Lender may reasonably deem necessary or appropriate, including, without limitation:

(a) duly executed original signatures to the Loan Documents to which it is a party;

(b) duly executed original signatures to the Control Agreement(s);

(c) its Operating Documents and good standing certificates (or equivalents) of Borrower certified by the Secretary of State of the States of Delaware and California (and such other states and/or jurisdictions in which Borrower is qualified to do and or doing business) as of a date no earlier than thirty (30) days prior to the Closing Date;

(d) a duly executed original Secretary's Certificate certifying the adoption and ratification of, and completed Borrowing Resolutions for, Borrower;

(e) a landlord's consent executed in favor of Lender with respect to each of Borrower's leased locations (other than Borrower's New Jersey location);

(f) certified copies, dated as of a recent date, of financing statement searches, as Lender shall request, accompanied by written evidence (including any UCC termination statements) that the Liens indicated in any such financing statements either constitute Permitted Liens or have been or, in connection with the Credit Extension, will be terminated or released;

(g) the Perfection Certificate executed by Borrower;

(h) evidence satisfactory to Lender that the insurance policies required by Section 6.5 hereof are in full force and effect, together with appropriate evidence showing lender loss payable and/or additional insured clauses or endorsements in favor of Lender; and

(i) payment of the fees and Lender Expenses then due as specified in Section 2.3 hereof.

3.2 Conditions Precedent to the Credit Extension. Lender's obligation to make the Credit Extension is subject to the following:

(a) Borrower shall have duly executed and delivered to Lender the Promissory Note in the amount of the Growth Capital Advance;

(b) the representations and warranties in Section 5 shall be true in all material respects on the Funding Date of the Credit Extension; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date, and no Event of Default shall have occurred and be continuing or result from the Credit Extension. The Credit Extension is Borrower's representation and warranty on that date that the representations and warranties in Section 5 remain true in all material respects; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date; and

(c) in Lender's sole discretion, there has not been a Material Adverse Change.

3.3 Covenant to Deliver. Borrower agrees to deliver to Lender each item required to be delivered to Lender under this Agreement as a condition to the Credit Extension. Borrower expressly agrees that a Credit Extension made prior to the receipt by Lender of any such item shall not constitute a waiver by Lender of Borrower's obligation to deliver such item, and the Credit Extension in the absence of a required item shall be made in Lender's sole discretion.

4 CREATION OF SECURITY INTEREST

4.1 Grant of Security Interest. Borrower hereby grants Lender, to secure the payment and performance in full of all of the Obligations, a continuing security interest in, and pledges to Lender, the Collateral, wherever located, whether now owned or hereafter acquired or arising, and all proceeds and products thereof. Borrower represents, warrants, and covenants that the security interest granted herein is and shall at all times continue to be a first priority perfected security interest in the Collateral (subject only to Permitted Liens that may have superior priority to Lender's Lien pursuant to the terms of this Agreement). If Borrower shall acquire a commercial tort claim (as defined in the Code), Borrower shall promptly notify Lender in a writing signed by Borrower of the general details thereof (and further details as may be required by Lender in the exercise of its reasonable discretion) and grant to Lender in such writing a security interest therein and in the proceeds thereof, all upon the terms of this Agreement, with such writing to be in form and substance reasonably satisfactory to Lender.

If this Agreement is terminated, Lender's Lien in the Collateral shall continue until the Obligations (other than inchoate indemnity obligations) are repaid in full in cash. Upon payment in full in cash of the Obligations (other than inchoate indemnity obligations), Lender shall, at Borrower's sole cost and expense, release its Liens in the Collateral and all rights therein shall revert to Borrower.

4.2 Authorization to File Financing Statements. Borrower hereby authorizes Lender to file financing statements, without notice to Borrower, with all appropriate jurisdictions to perfect or protect Lender's interest or rights hereunder, including a notice that any disposition of the Collateral, by either Borrower or any other Person, shall be deemed to violate the rights of Lender under the Code. Such financing statements may indicate the Collateral as "all assets of the Debtor" or words of similar effect, or as being of an equal or lesser scope, or with greater detail, all in Lender's discretion.

5 REPRESENTATIONS AND WARRANTIES

Borrower represents and warrants as follows:

5.1 Due Organization, Authorization; Power and Authority. Borrower is duly existing and in good standing in its jurisdiction of formation and is qualified and licensed to do business and is in good standing in any jurisdiction in which the conduct of its business or its ownership of property requires that it be qualified except where the failure to do so could not reasonably be expected to have a material adverse effect on Borrower's business. In connection with this Agreement, Borrower has delivered to Lender a completed certificate signed by Borrower, entitled "Perfection Certificate". Borrower represents and warrants to Lender that (a) Borrower's exact legal name is that indicated on the Perfection Certificate and on the signature page hereof; (b) Borrower is an organization of the type and is organized in the jurisdiction set forth in the Perfection Certificate; (c) the Perfection Certificate accurately sets forth Borrower's organizational identification number or accurately states that Borrower has none; (d) the Perfection Certificate accurately sets forth Borrower's place of business, or, if more than one, Borrower's chief executive office as well as Borrower's mailing address (if different than its chief executive office); (e) Borrower (and none of its predecessors) has not, in the past five (5) years, changed its jurisdiction of formation, organizational structure or type, or any organizational number assigned by its jurisdiction; and (f) all other information set forth on the Perfection Certificate pertaining to Borrower and its Subsidiaries is accurate and complete (it being understood and agreed that Borrower may from time to time update certain information in the Perfection Certificate after the Closing Date to the extent permitted by one or more specific provisions in this Agreement). If Borrower is not now a Registered Organization but later becomes one, Borrower shall promptly notify Lender of such occurrence and provide Lender with Borrower's organizational identification number.

The execution, delivery and performance by Borrower of the Loan Documents to which it is a party have been duly authorized, and do not (i) conflict with any of Borrower's organizational documents, (ii) contravene, conflict with, constitute a default under or violate any material Requirement of Law, (iii) contravene, conflict or violate any applicable order, writ, judgment, injunction, decree, determination or award of any Governmental Authority by which Borrower or any its Subsidiaries or any of their property or assets may be bound or affected, (iv) require any action by, filing, registration, or qualification with, or Governmental Approval from, any Governmental Authority (except such Governmental Approvals which have already been obtained and are in full force and effect) or (v) constitute an event of default under any material agreement by which Borrower is bound. Borrower is not in default under any agreement to which it is a party or by which it is bound in which the default could have a material adverse effect on Borrower's business.

5.2 Collateral. Borrower has good title to, has rights in, and the power to grant a Lien to Lender in each item of the Collateral upon which it purports to grant a Lien under the Loan Documents to which it is a party, free and clear of any and all Liens except Permitted Liens. Borrower does not have any deposit accounts other than the deposit accounts with Silicon Valley Bank, the deposit accounts, if any, described in the Perfection Certificate delivered to Lender in connection herewith, or of which Borrower has given Lender notice and taken such actions as are necessary to give Lender a perfected security interest therein.

The Collateral is not in the possession of any third party bailee (such as a warehouse) except as otherwise provided in the Perfection Certificate; and the book value of any such Collateral does not exceed $250,000. None of the components of the Collateral shall be maintained at locations other than as provided in the Perfection Certificate or as permitted pursuant to Section 7.2. In the event that Borrower, after the date hereof, intends to store or otherwise deliver any portion of the Collateral (having an aggregate book value in excess of $250,000) to a bailee, then Borrower will first receive the written consent of Lender and such bailee must execute and deliver a bailee agreement in form and substance satisfactory to Lender in its sole discretion. None of the Collateral (other than office equipment and furniture having an aggregate book value not in excess of $10,000) is now, or will at any time during the term hereof, be located at or in Borrower's leased premises in New Jersey.

Borrower is the sole owner of the Intellectual Property which it owns or purports to own except for (a) (i) non-exclusive licenses of Intellectual Property granted to third parties in the ordinary course of business, and (ii) licenses of Intellectual Property that could not result in a legal transfer of title of the licensed property that may be exclusive in respects other than territory and that may be exclusive as to territory only as to discreet geographical areas outside of the United States, (b) over-the-counter software that is commercially available to the public, and (c) Intellectual Property licensed to Borrower and, to the extent constituting material Intellectual Property, as noted on the Perfection Certificate. Each Patent which it owns or purports to own and which is material to Borrower's business is valid and enforceable, and no part of the Intellectual Property which Borrower owns or purports to own and which is material to Borrower's business has been judged invalid or unenforceable, in whole or in part. To the best of Borrower's knowledge, no claim has been made that any part of the Intellectual Property violates the rights of any third party except to the extent such claim would not reasonably be expected to have a material adverse effect on Borrower's business. Except as noted on the Perfection Certificate, Borrower is not a party to, nor is it bound by, any Restricted License.

5.3 Litigation. Except as set forth in the Perfection Certificate, there are no actions or proceedings pending or, to the knowledge of the Responsible Officers, threatened in writing by or against Borrower or any of its Subsidiaries involving more than $100,000.

5.4 No Material Deviation in Financial Statements. All consolidated financial statements for Borrower and its Subsidiaries delivered to Lender fairly present in all material respects the Borrower's and such Subsidiaries' consolidated financial condition and consolidated results of operations. There has not been any material deterioration in the Borrower's and its Subsidiaries' consolidated financial condition since the date of the most recent financial statements submitted to Lender.

5.5 Solvency. The fair salable value of Borrower's assets (including goodwill minus disposition costs) exceeds the fair value of its liabilities; Borrower is not left with unreasonably small capital after the transactions in this Agreement; and Borrower is able to pay its debts (including trade debts) as they mature.

5.6 Regulatory Compliance. Borrower is not an "investment company" or a company "controlled" by an "investment company" under the Investment Company Act of 1940, as amended. Borrower is not engaged as one of its important activities in extending credit for margin stock (under Regulations X, T and U of the Federal Reserve Board of Governors). Borrower has complied in all material respects with the Federal Fair Labor Standards Act. Neither Borrower nor any of its Subsidiaries is a "holding company" or an "affiliate" of a "holding company" or a "subsidiary company" of a "holding company" as each term is defined and used in the Public Utility Holding Company Act of 2005. Borrower has not violated any laws, ordinances or rules, the violation of which could reasonably be expected to have a material adverse effect on its business. None of Borrower's or any of its Subsidiaries' properties or assets has been used by Borrower or any Subsidiary or, to the best of Borrower's knowledge, by previous Persons, in disposing, producing, storing, treating, or transporting any hazardous substance other than legally. Borrower and each of its Subsidiaries have obtained all consents, approvals and authorizations of, made all declarations or filings with, and given all notices to, all Governmental Authorities that are necessary to continue their respective businesses as currently conducted.

5.7 Subsidiaries; Investments. Borrower does not own any stock, partnership interest or other equity securities except for Permitted Investments.

5.8 Tax Returns and Payments; Pension Contributions. Borrower has timely filed all required tax returns and reports, and has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower. Borrower may defer payment of any contested taxes, provided that Borrower (a) in good faith contests its obligation to pay the taxes by appropriate proceedings promptly and diligently instituted and conducted, (b) notifies Lender in writing of the commencement of, and any material development in, the proceedings, (c) posts bonds or takes any other steps required to prevent the governmental authority levying such contested taxes from obtaining a Lien upon any of the Collateral that is other than a "Permitted Lien". Borrower is unaware of any claims or adjustments proposed for any of Borrower's prior tax years which could result in additional taxes becoming due and payable by Borrower. Borrower has paid all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms, as applicable, and Borrower has not withdrawn from participation in, and has not permitted partial or complete termination of, or permitted the occurrence of any other event with respect to, any such plan which could reasonably be expected to result in any liability of Borrower, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other governmental agency, as applicable.

5.9 Use of Proceeds. Borrower shall use the proceeds of the Credit Extension solely as working capital and to fund its general business requirements and not for personal, family, household or agricultural purposes.

5.10 Full Disclosure. No written representation, warranty or other statement of Borrower in any certificate or written statement given to Lender, as of the date such representation, warranty, or other statement was made, taken together with all such written certificates and written statements given to Lender, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements contained in the certificates or statements not misleading (it being recognized by Lender that the projections and forecasts provided by Borrower in good faith and based upon reasonable assumptions are not viewed as facts and that actual results during the period or periods covered by such projections and forecasts may differ from the projected or forecasted results).

6 AFFIRMATIVE COVENANTS

Borrower shall do all of the following:

6.1 Government Compliance.

(a) Maintain its and all its Subsidiaries' legal existence and good standing in their respective jurisdictions of formation and maintain qualification in each jurisdiction in which the failure to so qualify would reasonably be expected to have a Material Adverse Change. Borrower shall comply, and have each Subsidiary comply, with all laws, ordinances and regulations to which it is subject, noncompliance with which could have a material adverse effect on Borrower's business.

(b) Obtain all of the Governmental Approvals necessary for the performance by Borrower of its obligations under the Loan Documents to which it is a party and the grant of a security interest to Lender in all of its property. Borrower shall promptly provide copies of any such obtained Governmental Approvals to Lender.

6.2 Financial Statements, Reports, Certificates. Deliver to Lender:

(a) Monthly Financial Statements. As soon as available, but no later than forty-five (45) days after the last day of each month before Borrower has a class of securities registered under Section 12 of the Securities Exchange Act, a company prepared consolidated and consolidating balance sheet and income statement covering Borrower's and each of its Subsidiary's operations for such month certified by a Responsible Officer and in a form reasonably acceptable to Lender;

(b) Quarterly Financial Statements. As soon as available, but no later than forty-five (45) days after the last day of each of the first three quarters of Borrower's fiscal year after Borrower has a class of securities registered under Section 12 of the Securities Exchange Act, a company prepared consolidated financial statements prepared under GAAP, consistently applied, certified by a Responsible Officer and in a form reasonably acceptable to Lender;

(c) Annual Audited Financial Statements. As soon as available, but no later than one hundred twenty (120) days after the last day of Borrower's fiscal year, audited consolidated financial statements prepared under GAAP, consistently applied, together with an unqualified opinion on the financial statements from an independent certified public accounting firm acceptable to Lender in its reasonable discretion;

(d) Compliance Certificates. Concurrently with the delivery of any financial statements pursuant to clauses (a), (b) and (c), a duly completed Compliance Certificate signed by a Responsible Officer, certifying that as of the end of such period, Borrower was in full compliance with all of the terms and conditions of this Agreement, and setting forth such other information as Lender shall reasonably request;

(e) Other Statements. Within five (5) days of delivery, unless earlier posted on Borrower's website, copies of all statements, reports and notices made available to Borrower's security holders or to any holders of Subordinated Debt;

(f) SEC Filings. Within five (5) days of filing, copies of all periodic and other reports, proxy statements and other materials filed by Borrower with the SEC, any Governmental Authority succeeding to any or all of the functions of the SEC or with any national securities exchange, or distributed to its shareholders, as the case may be. Notwithstanding the foregoing, documents required to be delivered pursuant to the terms hereof (to the extent any such documents are included in materials otherwise filed with the SEC) shall be deemed to have been delivered to Lender on the date on which Borrower posts such documents, or provides a link thereto, on Borrower's website on the internet at Borrower's website address;

As to any information contained in the materials furnished pursuant to this clause (f), Borrower shall not be required separately to furnish such information under clauses (b), (c) and (e), but the foregoing shall not be in derogation of the obligation of Borrower to furnish the information and materials described in such clauses (b), (c) and (e) at the times specified therein; provided, that Borrower shall provide paper copies to Lender of the Compliance Certificates required by Section 6.2(d).

(g) Annual Financial Projections. Within 45 days after the end of each fiscal year, commencing with the fiscal year ending 2010, annual financial projections for the following fiscal year (on a quarterly basis) as approved by Borrower's board of directors, together with any related business forecasts used in the preparation of such annual financial projections;

(h) Legal Action Notice. A prompt report of any legal actions pending or threatened in writing against Borrower or any of its Subsidiaries that could reasonably be expected to result in damages or costs to Borrower or any of its Subsidiaries of, individually or in the aggregate, $250,000 or more;

(i) Intellectual Property Notice. Prompt written notice of (i) any material change in the composition of the Intellectual Property, (ii) the registration of any copyright, including any subsequent ownership right of Borrower in or to any copyright, patent or trademark not shown in the IP Agreement, and (iii) Borrower's knowledge of an event that could reasonably be expected to materially and adversely affect the value of the Intellectual Property; and

(j) Other Financial Information. Budgets, sales projections, operating plans and other financial information reasonably requested by Lender.

6.3 Inventory; Returns. Keep all Inventory (other than clinical inventory) in good and marketable condition, free from material defects. Returns and allowances between Borrower and its Account Debtors shall follow Borrower's customary practices as they exist at the Closing Date. Borrower must promptly notify Lender of all returns, recoveries, disputes and claims that involve more than $100,000.

6.4 Taxes; Pensions. Timely file, and require each Subsidiary to timely file, all required tax returns and reports and timely pay, and require each Subsidiary to timely file, all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower, except for deferred payment of any taxes contested pursuant to the terms of Section 5.8 hereof, and shall deliver to Lender, on demand, appropriate certificates attesting to such payments, and pay all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms.

6.5 Insurance. Keep its, and cause each Subsidiary to keep its respective business and the Collateral insured for risks and in amounts standard for companies in Borrower's industry and locations and as Lender may reasonably request; provided that Borrower's Subsidiaries may be covered by Borrower's insurance policies. Insurance policies shall be in a form, with companies, and in amounts that are reasonably satisfactory to Lender. All property policies shall have a lender's loss payable endorsement showing Lender as lender loss payee and waive subrogation against Lender, and all liability policies shall show, or have endorsements showing, Lender as an additional insured. All policies (or the loss payable and additional insured endorsements) shall provide that the insurer shall give Lender at least twenty (20) days notice before canceling (other than cancellation based on non-payment of premium, with respect to which the insurer shall provide at least ten (10) days notice before canceling) or declining to renew its policy. At Lender's request, Borrower shall deliver certified copies of policies and evidence of all premium payments. If Borrower or any Subsidiary fails to obtain insurance as required under this Section 6.5 or to pay any amount or furnish any required proof of payment to third persons and Lender, Lender may make all or part of such payment or obtain such insurance policies required in this Section 6.5, and take any action under the policies Lender deems prudent.

6.6 Operating Accounts.

(a) Maintain all of its and all of its domestic Subsidiaries' operating and other deposit accounts and securities accounts with Silicon Valley Bank, in each case subject to Control Agreements in favor of and in form and substance reasonably acceptable to Lender. Notwithstanding the foregoing, Borrower shall be permitted to retain its deposit accounts outside of Silicon Valley Bank provided that (i) all such accounts are closed by no later than January 31, 2010 and (ii) Borrower maintains no more than $630,000 in the aggregate in any such accounts at any time.

(b) Provide Lender five (5) days prior written notice before establishing any Collateral Account at or with any bank or financial institution other than Silicon Valley Bank. For each Collateral Account that Borrower at any time maintains, Borrower shall cause the applicable bank or financial institution at or with which any Collateral Account is maintained to execute and deliver a Control Agreement or other appropriate instrument with respect to such Collateral Account to perfect Lender's Lien in such Collateral Account in accordance with the terms hereunder. The provisions of the previous sentence shall not apply to deposit accounts exclusively used for payroll, payroll taxes and other employee wage and benefit payments to or for the benefit of Borrower's employees and identified to Lender by Borrower as such.

6.7 Intentionally Omitted.

6.8 Protection and Registration of Intellectual Property Rights.

(a) (i) Protect, defend and maintain the validity and enforceability of its Intellectual Property; (ii) promptly advise Lender in writing of material infringements of its Intellectual Property; and (iii) not allow any Intellectual Property material to Borrower's business to be abandoned, forfeited or dedicated to the public without Lender's written consent.

(b) If Borrower (i) obtains any Patent, registered Trademark, registered Copyright, registered mask work, or any pending application for any of the foregoing, whether as owner, licensee or otherwise, or (ii) applies for any Patent or the registration of any Trademark, then Borrower shall immediately provide written notice thereof to Lender and shall execute such intellectual property security agreements and other documents and take such other actions as Lender shall request in its good faith business judgment to perfect and maintain a first priority perfected security interest in favor of Lender in such property. If Borrower decides to register any Copyrights or mask works in the United States Copyright Office, Borrower shall: (x) provide Lender with at least fifteen (15) days

prior written notice of Borrower's intent to register such Copyrights or mask works together with a copy of the application it intends to file with the United States Copyright Office (excluding exhibits thereto); and (y) execute an intellectual property security agreement and such other documents and take such other actions as Lender may reasonably request in its good faith business judgment to perfect and maintain a first priority perfected security interest in favor of Lender in the Copyrights or mask works intended to be registered with the United States Copyright Office, and hereby authorizes Lender to record such intellectual property security agreement with the United States Copyright Office contemporaneously with filing the Copyright or mask work application(s) with the United States Copyright Office. Borrower shall promptly provide to Lender copies of all applications that it files for Patents or for the registration of Trademarks, Copyrights or mask works, together with evidence of the recording of the intellectual property security agreement necessary for Lender to perfect and maintain a first priority perfected security interest in such property.

(c) Provide written notice to Lender within ten (10) days of entering or becoming bound by any Restricted License (other than over-the-counter software that is commercially available to the public). Borrower shall take such steps as Lender requests to obtain the consent of, or waiver by, any person whose consent or waiver is necessary for (i) any Restricted License to be deemed "Collateral" and for Lender to have a security interest in it that might otherwise be restricted or prohibited by law or by the terms of any such Restricted License, whether now existing or entered into in the future, and (ii) Lender to have the ability in the event of a liquidation of any Collateral to dispose of such Collateral in accordance with Lender's rights and remedies under this Agreement and the other Loan Documents.

6.9 Litigation Cooperation. From the date hereof and continuing through the termination of this Agreement, make available to Lender at reasonable times, without expense to Lender, Borrower and its officers, employees and agents and Borrower's books and records, to the extent that Lender may deem them reasonably necessary to prosecute or defend any third-party suit or proceeding instituted by or against Lender with respect to any Collateral or relating to Borrower.

6.10 Notices of Litigation and Default. Borrower will give prompt written notice to Lender of any litigation or governmental proceedings pending or threatened (in writing) against Borrower which would reasonably be expected to have a material adverse effect with respect to Borrower. Without limiting or contradicting any other more specific provision of this Agreement, promptly (and in any event within three (3) Business Days) upon Borrower (or any officer thereof) becoming aware of the existence of any Event of Default or event which, with the giving of notice or passage of time, or both, would constitute an Event of Default, Borrower shall give written notice to Lender of such occurrence, which such notice shall include a reasonably detailed description of such Event of Default or event which, with the giving of notice or passage of time, or both, would constitute an Event of Default.

6.11 Formation or Acquisition of Subsidiaries. At the time that Borrower or any Subsidiary forms any direct or indirect Subsidiary or acquires any direct or indirect Subsidiary after the Closing Date, Borrower and such Subsidiary shall (a) cause such new Subsidiary to provide to Lender a joinder to this Agreement to cause such Subsidiary to become a co-borrower hereunder, together with such appropriate financing statements and/or Control Agreements, all in form and substance satisfactory to Lender (including being sufficient to grant Lender a first priority Lien (subject to Permitted Liens) in and to the assets of such newly formed or acquired Subsidiary), (b) provide to Lender appropriate certificates and powers and financing statements, pledging all of the direct or beneficial ownership interest in such new Subsidiary, in form and substance satisfactory to Lender, and (c) provide to Lender all other documentation in form and substance satisfactory to Lender, including one or more opinions of counsel satisfactory to Lender, which in its opinion is appropriate with respect to the execution and delivery of the applicable documentation referred to above. Any document, agreement, or instrument executed or issued pursuant to this Section 6.11 shall be a Loan Document.

6.12 Dissolution of Ingenex. Borrower shall cause Ingenex to be dissolved, and shall provide evidence of the same to Lender, in form and content reasonably acceptable to Lender, by no later than December 31, 2010.

6.13 Further Assurances. Execute any further instruments and take further action as Lender reasonably requests to perfect or continue Lender's Lien in the Collateral or to effect the purposes of this Agreement and the other Loan Documents. Deliver to Lender, within five (5) days after the same are sent or received, copies of all correspondence, reports, documents and other filings with any Governmental Authority regarding compliance with or maintenance of Governmental Approvals or Requirements of Law or that could reasonably be expected to have a material effect on any of the Governmental Approvals or otherwise on the operations of Borrower.

7 NEGATIVE COVENANTS

Borrower shall not do any of the following without Lender's prior written consent, which consent may be granted or withheld in Lender's sole discretion exercised in good faith in a commercially reasonable manner:

7.1 Dispositions. Convey, sell, lease, transfer or otherwise dispose of (collectively, "**Transfer**"), or permit any Subsidiary to Transfer, all or any part of its business or property, except for Transfers (a) of Inventory in the ordinary course of business; (b) of worn-out or obsolete Equipment; and (c) in connection with Permitted Liens and Permitted Investments; and (d) of non-exclusive licenses for the use of the property of Borrower or its Subsidiaries (other than Ingenex) in the ordinary course of business and licenses that could not result in a legal transfer of title of the licensed property but that may be exclusive in respects other than territory and that may be exclusive as to territory only as to discreet geographical areas outside of the United States. Without limiting the foregoing, Borrower shall not Transfer any property or asset to Ingenex.

7.2 Changes in Business, Management, Control, or Business Locations. (a) Engage in or permit any Subsidiary to engage in any business other than the businesses currently engaged in by Borrower or such Subsidiary, as applicable, or reasonably related thereto; (b) liquidate or dissolve; or (c) (i) have a change in any Key Person, unless replaced by a Person reasonably acceptable to Lender within thirty (30) days of such change, or (ii) permit or suffer any Change in Control. Borrower shall not, without at least fifteen (15) days prior written notice to Lender: (1) add any new offices or business locations, including warehouses (unless such new offices or business locations contain less than Ten Thousand Dollars ($10,000) in Borrower's assets or property), (2) change its jurisdiction of organization, (3) change its organizational structure or type, (4) change its legal name, or (5) change any organizational number (if any) assigned by its jurisdiction of organization.

7.3 Mergers or Acquisitions. Merge or consolidate, or permit any Subsidiary to merge or consolidate, with any other Person, or acquire, or permit any Subsidiary to acquire, all or substantially all of the capital stock or property of another Person. A Subsidiary may merge or consolidate into Borrower or another Subsidiary.

7.4 Indebtedness. Create, incur, assume, or be liable for any Indebtedness, or permit Borrower to do so, other than Permitted Indebtedness.

7.5 Encumbrance. Create, incur, allow, or suffer any Lien on any of the Collateral, or assign or convey any right to receive income, including the sale of any Accounts, or permit any of its Subsidiaries to do so, except for Permitted Liens, permit any Collateral not to be subject to the first priority security interest granted herein, or enter into any agreement, document, instrument or other arrangement (except with or in favor of Lender) with any Person which directly or indirectly prohibits or has the effect of prohibiting Borrower or any Subsidiary from assigning, mortgaging, pledging, granting a security interest in or upon, or encumbering any of Borrower's or any Subsidiary's Intellectual Property, except as is otherwise permitted in Section 7.1 hereof and the definition of "Permitted Liens" herein.

7.6 Maintenance of Collateral Accounts. Maintain any Collateral Account except pursuant to the terms of Section 6.6 hereof.

7.7 Distributions; Investments. (a) Pay any dividends or make any distribution or payment in respect of any of its capital stock, or redeem, retire or purchase any of its capital stock other than in connection with Permitted Distributions; or (b) directly or indirectly acquire or own any Person, or make any Investment in any Person, other than Permitted Investments, or permit any of its Subsidiaries to do so.

7.8 Transactions with Affiliates. Directly or indirectly enter into or permit to exist any material transaction with any Affiliate of Borrower, except for (a) transactions that are in the ordinary course of Borrower's business, upon fair and reasonable terms (when viewed in the context of any series of transactions of which it may

be a part, if applicable) that are no less favorable to Borrower than would be obtained in an arm's length transaction with a non-affiliated Person; or (b) transactions among Borrower and its Subsidiaries and among Borrower's Subsidiaries so long as no Event of Default exists or could result therefrom.

7.9 Subordinated Debt. (a) Make or permit any payment on any Subordinated Debt, except under the terms of the subordination, intercreditor, or other similar agreement to which such Subordinated Debt is subject, or (b) amend any provision in any document relating to the Subordinated Debt which would increase the amount thereof or adversely affect the subordination thereof to Obligations owed to Lender.

7.10 Compliance. Become an "investment company" or a company controlled by an "investment company", under the Investment Company Act of 1940, as amended, or undertake as one of its important activities extending credit to purchase or carry margin stock (as defined in Regulation U of the Board of Governors of the Federal Reserve System), or use the proceeds of the Credit Extension for that purpose; fail to meet the minimum funding requirements of ERISA, permit a Reportable Event or Prohibited Transaction, as defined in ERISA, to occur; fail to comply with the Federal Fair Labor Standards Act or violate any other law or regulation, if the violation could reasonably be expected to have a material adverse effect on Borrower's business, or permit any of its Subsidiaries to do so; withdraw or permit any Subsidiary to withdraw from participation in, permit partial or complete termination of, or permit the occurrence of any other event with respect to, any present pension, profit sharing and deferred compensation plan which could reasonably be expected to result in any liability of Borrower, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other governmental agency.

7.11 Indebtedness Payments. (i) Prepay, redeem, purchase, defease or otherwise satisfy in any manner prior to the scheduled repayment thereof any Indebtedness for borrowed money (other than amounts due under this Agreement or due any Lender) or lease obligations, (ii) amend, modify or otherwise change the terms of any Indebtedness for borrowed money or lease obligations so as to accelerate the scheduled repayment thereof or (iii) repay any notes to officers, directors or shareholders; provided that Borrower may pay compensation to employees, deferred as of the Closing Date, not to exceed $250,000 in the aggregate.

8 EVENTS OF DEFAULT

Any one of the following shall constitute an event of default (an "**Event of Default**") under this Agreement:

8.1 Payment Default. Borrower fails to (a) make any payment of principal or interest on the Credit Extension on its due date, or (b) pay any other Obligations within three (3) Business Days after such Obligations are due and payable (which three (3) day grace period shall not apply to payments due on the Maturity Date). During the cure period, the failure to cure the payment default is not an Event of Default;

8.2 Covenant Default.

(a) Borrower fails or neglects to perform any obligation in Section 6.2, 6.4, 6.5, 6.6, 6.8, 6.11 or 6.12, or violates any covenant in Section 7; or

(b) Borrower fails or neglects to perform, keep, or observe any other term, provision, condition, covenant or agreement contained in this Agreement or any Loan Document to which it is a party, and as to any default (other than those specified in this Section 8) under such other term, provision, condition, covenant or agreement that can be cured, has failed to cure the default within ten (10) days after the occurrence thereof; provided, however, that if the default cannot by its nature be cured within the ten (10) day period or cannot after diligent attempts by Borrower be cured within such ten (10) day period, and such default is likely to be cured within a reasonable time, then Borrower shall have an additional period (which shall not in any case exceed thirty (30) days) to attempt to cure such default, and within such reasonable time period the failure to cure the default shall not be deemed an Event of Default. Grace periods provided under this section shall not apply, among other things, to financial covenants or any other covenants set forth in subsection (a) above;

8.3 Material Adverse Change. A Material Adverse Change occurs;

8.4 Attachment; Levy; Restraint on Business. (a) (i) The service of process seeking to attach, by trustee or similar process, any funds of Borrower or of any entity under control of Borrower (including a Subsidiary) on deposit or otherwise maintained with Silicon Valley Bank, or (ii) a notice of lien, levy, or assessment is filed against any of Borrower's assets by any government agency, and the same under subclauses (i) and (ii) hereof are not, within ten (10) days after the occurrence thereof, discharged or stayed (whether through the posting of a bond or otherwise); or (b) (i) any material portion of Borrower's assets is attached, seized, levied on, or comes into possession of a trustee or receiver, or (ii) any court order enjoins, restrains, or prevents Borrower from conducting any part of its business;

8.5 Insolvency. (a) Borrower is unable to pay its debts (including trade debts) as they become due or otherwise becomes insolvent; (b) Borrower begins an Insolvency Proceeding; or (c) an Insolvency Proceeding is begun against Borrower and not dismissed or stayed within thirty (30) days;

8.6 Other Agreements. There is a default in any agreement to which Borrower is a party with a third party or parties resulting in a right by such third party or parties, whether or not exercised, to accelerate the maturity of any Indebtedness in an amount in excess of $100,000 or that could reasonably be expected to have a Material Adverse Change;

8.7 Judgments. One or more final judgments, orders, or decrees for the payment of money in an amount, individually or in the aggregate, of at least $100,000 (not covered by independent third-party insurance as to which liability has been accepted by such insurance carrier) shall be rendered against Borrower and shall remain unsatisfied, unvacated, or unstayed for a period of ten (10) days after the entry thereof;

8.8 Misrepresentations. Borrower or any Person acting for Borrower makes any representation, warranty, or other statement now or later in this Agreement, any Loan Document or in any writing delivered to Lender or to induce Lender to enter this Agreement or any Loan Document, and such representation, warranty, or other statement is incorrect in any material respect when made;

8.9 Subordinated Debt. A default or breach occurs under any agreement between Borrower and any creditor of Borrower that signed a subordination, intercreditor, or other similar agreement with Lender, or any creditor that has signed such an agreement with Lender breaches any material terms of such agreement;

8.10 Governmental Approvals. Any Governmental Approval shall have been (a) revoked, rescinded, suspended, modified in an adverse manner or not renewed in the ordinary course for a full term or (b) subject to any decision by a Governmental Authority that designates a hearing with respect to any applications for renewal of any of such Governmental Approval or that could result in the Governmental Authority taking any of the actions described in clause (a) above, and such decision or such revocation, rescission, suspension, modification or non-renewal (i) has, or could reasonably be expected to have, a Material Adverse Change, or (ii) adversely affects the legal qualifications of Borrower to hold such Governmental Approval in any applicable jurisdiction and such revocation, rescission, suspension, modification or non-renewal could reasonably be expected to affect the status of or legal qualifications of Borrower to hold any Governmental Approval in any other jurisdiction.

9 LENDER'S RIGHTS AND REMEDIES

9.1 Rights and Remedies. While an Event of Default occurs and continues Lender may, without notice or demand, do any or all of the following:

(a) declare in writing all Obligations immediately due and payable (but if an Event of Default described in Section 8.5 occurs all Obligations are immediately due and payable without any action by Lender);

(b) stop advancing money or extending credit for Borrower's benefit under this Agreement or under any other agreement between Borrower and Lender;

(c) settle or adjust disputes and claims directly with Account Debtors for amounts on terms and in any order that Lender considers advisable in the exercise of its commercially reasonable discretion, notify any Person owing Borrower money of Lender's security interest in such funds, and verify the amount of such account;

(d) make any payments and do any acts it considers necessary or reasonable to protect the Collateral and/or its security interest in the Collateral. Borrower shall assemble the Collateral if Lender requests and make it available as Lender reasonably designates. Lender may enter premises where the Collateral is located, take and maintain possession of any part of the Collateral, and pay, purchase, contest, or compromise any Lien which appears to be prior or superior to its security interest and pay all expenses incurred. Borrower grants Lender a license to enter and occupy any of its premises, without charge, to exercise any of Lender's rights or remedies;

(e) apply to the Obligations any (i) balances and deposits of Borrower it holds, or (ii) any amount held by Lender owing to or for the credit or the account of Borrower;

(f) ship, reclaim, recover, store, finish, maintain, repair, prepare for sale, advertise for sale, and sell the Collateral. Lender is hereby granted a non-exclusive, royalty-free license or other right to use, without charge, Borrower's labels, Patents, Copyrights, mask works, rights of use of any name, trade secrets, trade names, Trademarks, service marks, and advertising matter, or any similar property as it pertains to the Collateral, in completing production of, advertising for sale, and selling any Collateral and, in connection with Lender's exercise of its rights under this Section, Borrower's rights under all licenses and all franchise agreements inure to Lender's benefit as collateral assignee;

(g) place a "hold" on any account maintained with Lender and/or deliver a notice of exclusive control, any entitlement order, or other directions or instructions pursuant to any Control Agreement or similar agreements providing control of any Collateral;

(h) demand and receive possession of Borrower's Books; and

(i) exercise all rights and remedies available to Lender under the Loan Documents or at law or equity, including all remedies provided under the Code (including disposal of the Collateral pursuant to the terms thereof).

9.2 Power of Attorney. Borrower hereby irrevocably appoints Lender as its lawful attorney-in-fact, exercisable upon the occurrence and during the continuance of an Event of Default, to: (a) endorse Borrower's name on any checks or other forms of payment or security; (b) sign Borrower's name on any invoice or bill of lading for any Account or drafts against Account Debtors; (c) settle and adjust disputes and claims about the Accounts directly with Account Debtors, for amounts and on terms Lender determines reasonable; (d) make, settle, and adjust all claims under Borrower's insurance policies; (e) pay, contest or settle any Lien, charge, encumbrance, security interest, and adverse claim in or to the Collateral, or any judgment based thereon, or otherwise take any action to terminate or discharge the same; and (f) transfer the Collateral into the name of Lender or a third party as the Code permits. Borrower hereby appoints Lender as its lawful attorney-in-fact to sign Borrower's name on any documents necessary to perfect or continue the perfection of Lender's security interest in the Collateral regardless of whether an Event of Default has occurred until all Obligations have been satisfied in full. Lender's foregoing appointment as Borrower's attorney in fact, and all of Lender's rights and powers, coupled with an interest, are irrevocable until all Obligations have been fully repaid and performed.

9.3 Protective Payments. If Borrower fails to obtain the insurance called for by Section 6.5 or fails to pay any premium thereon or fails to pay any other amount which Borrower is obligated to pay under this Agreement or any other Loan Document, Lender may obtain such insurance or make such payment, and all amounts so paid by Lender are Lender Expenses and immediately due and payable, bearing interest at the Default Rate, and secured by the Collateral. Lender will make reasonable efforts to provide Borrower with notice of Lender obtaining such insurance at the time it is obtained or within a reasonable time thereafter. No payments by Lender are deemed an agreement to make similar payments in the future or Lender's waiver of any Event of Default.

9.4 Application of Payments and Proceeds. Borrower shall not have any right to specify the order or the accounts to which Lender shall allocate or apply any payments required to be made by Borrower to Lender or otherwise received by Lender under this Agreement when any such allocation or application is not specified elsewhere in this Agreement. If an Event of Default has occurred and is continuing, Lender may apply any funds in its possession, whether from Borrower account balances, payments, proceeds realized as the result of any collection of Accounts or other disposition of the Collateral, or otherwise, to the Obligations in such order as Lender shall determine in its sole discretion. Any surplus shall be paid to Borrower or other Persons legally entitled thereto; Borrower shall remain liable to Lender for any deficiency. If Lender, in its good faith business judgment, directly or indirectly enters into a deferred payment or other credit transaction with any purchaser at any sale of Collateral, Lender shall have the option, exercisable at any time, of either reducing the Obligations by the principal amount of the purchase price or deferring the reduction of the Obligations until the actual receipt by Lender of cash therefor.

9.5 Lender's Liability for Collateral. So long as Lender complies with reasonable practices regarding the safekeeping of the Collateral in the possession or under the control of Lender, Lender shall not be liable or responsible for: (a) the safekeeping of the Collateral; (b) any loss or damage to the Collateral; (c) any diminution in the value of the Collateral; or (d) any act or default of any carrier, warehouseman, bailee, or other Person. The Credit Parties bear all risk of loss, damage or destruction of the Collateral.

9.6 No Waiver; Remedies Cumulative. Lender's failure, at any time or times, to require strict performance by Borrower of any provision of this Agreement or any other Loan Document shall not waive, affect, or diminish any right of Lender thereafter to demand strict performance and compliance herewith or therewith. No waiver hereunder shall be effective unless signed by Lender and then is only effective for the specific instance and purpose for which it is given. Lender's rights and remedies under this Agreement and the other Loan Documents are cumulative. Lender has all rights and remedies provided under the Code, by law, or in equity. Lender's exercise of one right or remedy is not an election, and shall not preclude Lender from exercising any other remedy under this Agreement or other remedy available at law or in equity, and Lender's waiver of any Event of Default is not a continuing waiver. Lender's delay in exercising any remedy is not a waiver, election, or acquiescence.

9.7 Demand Waiver. Borrower, for itself an on behalf of each Subsidiary, waives demand, notice of default or dishonor, notice of payment and nonpayment, notice of any default, nonpayment at maturity, release, compromise, settlement, extension, or renewal of accounts, documents, instruments, chattel paper, and guarantees held by Lender on which Borrower is liable.

10 NOTICES

All notices, consents, requests, approvals, demands, or other communication by any party to this Agreement or any other Loan Document must be in writing and shall be deemed to have been validly served, given, or delivered: (a) upon the earlier of actual receipt and three (3) Business Days after deposit in the U.S. mail, first class, registered or certified mail return receipt requested, with proper postage prepaid; (b) upon transmission, when sent by electronic mail or facsimile transmission; (c) one (1) Business Day after deposit with a reputable overnight courier with all charges prepaid; or (d) when delivered, if hand-delivered by messenger, all of which shall be addressed to the party to be notified and sent to the address, facsimile number, or email address indicated below. Lender or Borrower may change its mailing or electronic mail address or facsimile number by giving the other party written notice thereof in accordance with the terms of this Section 10.

If to Borrower: TITAN PHARMACEUTICALS, INC.
400 Oyster Point Blvd., Suite 505
South San Francisco, CA 94080
Attn: Chief Financial Officer
Fax: (650) 244-4956
Email: Sbhonsle@titanpharm.com

If to Lender: OXFORD FINANCE CORPORATION
133 N. Fairfax Street
Alexandria, VA 22314
Attn: Tim A. Lex, Chief Operating Officer
Fax: (703) 519-5225
Email: tlex@oxfordfinance.com

11 CHOICE OF LAW, VENUE, JURY TRIAL WAIVER AND JUDICIAL REFERENCE

California law governs the Loan Documents without regard to principles of conflicts of law. Borrower and Lender each submit to the exclusive jurisdiction of the State and Federal courts in San Diego County, California; provided, however, that nothing in this Agreement shall be deemed to operate to preclude Lender from bringing suit or taking other legal action in any other jurisdiction to realize on the Collateral or any other security for the Obligations, or to enforce a judgment or other court order in favor of Lender. Borrower expressly submits and consents in advance to such jurisdiction in any action or suit commenced in any such court, and Borrower hereby waives any objection that it may have based upon lack of personal jurisdiction, improper venue, or forum non conveniens and hereby consents to the granting of such legal or equitable relief as is deemed appropriate by such court. Borrower hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made by registered or certified mail addressed to Borrower at the address set forth in Section 10 of this Agreement and that service so made shall be deemed completed upon the earlier to occur of Borrower's actual receipt thereof or three (3) days after deposit in the U.S. mails, proper postage prepaid.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, BORROWER AND LENDER EACH WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS AGREEMENT, THE LOAN DOCUMENTS OR ANY CONTEMPLATED TRANSACTION, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER IS A MATERIAL INDUCEMENT FOR BOTH PARTIES TO ENTER INTO THIS AGREEMENT. EACH PARTY HAS REVIEWED THIS WAIVER WITH ITS COUNSEL.

WITHOUT INTENDING IN ANY WAY TO LIMIT THE PARTIES' AGREEMENT TO WAIVE THEIR RESPECTIVE RIGHT TO A TRIAL BY JURY, if the above waiver of the right to a trial by jury is not enforceable, the parties hereto agree that any and all disputes or controversies of any nature between them arising at any time shall be decided by a reference to a private judge, mutually selected by the parties (or, if they cannot agree, by the Presiding Judge of the San Diego County, California Superior Court) appointed in accordance with California Code of Civil Procedure Section 638 (or pursuant to comparable provisions of federal law if the dispute falls within the exclusive jurisdiction of the federal courts), sitting without a jury, in San Diego County, California; and the parties hereby submit to the jurisdiction of such court. The reference proceedings shall be conducted pursuant to and in accordance with the provisions of California Code of Civil Procedure §§ 638 through 645.1, inclusive. The private judge shall have the power, among others, to grant provisional relief, including without limitation, entering temporary restraining orders, issuing preliminary and permanent injunctions and appointing receivers. All such proceedings shall be closed to the public and confidential and all records relating thereto shall be permanently sealed. If during the course of any dispute, a party desires to seek provisional relief, but a judge has not been appointed at that point pursuant to the judicial reference procedures, then such party may apply to the San Diego County, California Superior Court for such relief. The proceeding before the private judge shall be conducted in the same manner as it would be before a court under the rules of evidence applicable to judicial proceedings. The parties shall be entitled to discovery which shall be conducted in the same manner as it would be before a court under the rules of discovery applicable to judicial proceedings. The private judge shall oversee discovery and may enforce all discovery rules and order applicable to judicial proceedings in the same manner as a trial court judge. The parties agree that the selected or appointed private judge shall have the power to decide all issues in the action or proceeding, whether of fact or of law, and shall report a statement of decision thereon pursuant to the California Code of Civil Procedure § 644(a). Nothing in this paragraph shall limit the right of any party at any time to exercise self-help remedies, foreclose against collateral, or obtain provisional remedies. The private judge shall also determine all issues relating to the applicability, interpretation, and enforceability of this paragraph.

12 GENERAL PROVISIONS

12.1 Successors and Assigns. This Agreement binds and is for the benefit of the successors and permitted assigns of each party. Borrower may not assign this Agreement or any rights or obligations under it without Lender's prior written consent (which may be granted or withheld in Lender's discretion). Lender has the right, without the consent of or notice to Borrower, to sell, transfer, negotiate, or grant participation in all or any part of, or any interest in, Lender's obligations, rights, and benefits under this Agreement and the other Loan Documents.

12.2 Indemnification. Borrower agrees to indemnify, defend and hold Lender and its directors, officers, employees, agents, attorneys, or any other Person affiliated with or representing Lender (each, an "**Indemnified Person**") harmless against: (a) all obligations, demands, claims, and liabilities (collectively, "**Claims**") claimed or asserted by any other party in connection with the transactions contemplated by the Loan Documents; and (b) all losses or expenses (including Lender Expenses) in any way suffered, incurred, or paid by such Indemnified Person as a result of, following from, consequential to, or arising from transactions between Lender and Borrower (including reasonable attorneys' fees and expenses), except for Claims and/or losses directly caused by such Indemnified Person's gross negligence or willful misconduct.

12.3 Time of Essence. Time is of the essence for the performance of all Obligations in this Agreement.

12.4 Severability of Provisions. Each provision of this Agreement is severable from every other provision in determining the enforceability of any provision.

12.5 Correction of Loan Documents. Upon prior written notice to Borrower, Lender may correct patent errors and fill in any blanks in this Agreement and the other Loan Documents consistent with the agreement of the parties.

12.6 Amendments in Writing; Integration. All amendments to this Agreement must be in writing and signed by both Lender and Borrower. This Agreement and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of this Agreement and the Loan Documents merge into this Agreement and the Loan Documents.

12.7 Counterparts. This Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, are an original, and all taken together, constitute one Agreement.

12.8 Survival. All covenants, representations and warranties made in this Agreement continue in full force until this Agreement has terminated pursuant to its terms and all Obligations (other than inchoate indemnity obligations and any other obligations which, by their terms, are to survive the termination of this Agreement) have been satisfied. The obligation of Borrower in Section 12.2 to indemnify Lender shall survive until the statute of limitations with respect to such claim or cause of action shall have run.

12.9 Confidentiality. In handling any confidential information, Lender shall exercise the same degree of care that it exercises for its own proprietary information, but disclosure of information may be made: (a) to Lender's Subsidiaries or Affiliates; (b) to prospective transferees or purchasers of any interest in the Credit Extension (provided, however, Lender shall use commercially reasonable efforts to obtain such prospective transferee's or purchaser's agreement to the terms of this provision); (c) as required by law, regulation, subpoena, or other order; (d) to Lender's regulators or as otherwise required in connection with Lender's examination or audit; (e) as Lender considers appropriate in exercising remedies under the Loan Documents; and (f) to third-party service providers of Lender so long as such service providers have executed a confidentiality agreement with Lender with terms no less restrictive than those contained herein. Confidential information does not include information that either: (i) is in the public domain or in Lender's possession when disclosed to Lender, or becomes part of the public domain after disclosure to Lender; or (ii) is disclosed to Lender by a third party, if Lender does not know that the third party is prohibited from disclosing the information.

Lender may use confidential information for any purpose, including, without limitation, for the development of client databases, reporting purposes, and market analysis, so long as Lender does not disclose Borrower's identity or the identity of any person associated with Borrower unless otherwise expressly permitted by this Agreement. The provisions of the immediately preceding sentence shall survive the termination of this Agreement.

12.10 Attorneys' Fees, Costs and Expenses. In any action or proceeding between Borrower and Lender arising out of or relating to the Loan Documents, the prevailing party shall be entitled to recover its reasonable attorneys' fees and other costs and expenses incurred, in addition to any other relief to which it may be entitled.

12.11 Electronic Execution of Documents. The words "execution," "signed," "signature" and words of like import in any Loan Document shall be deemed to include electronic signatures or the keeping of records in electronic form, each of which shall be of the same legal effect, validity and enforceability as a manually executed signature or the use of a paper-based recordkeeping systems, as the case may be, to the extent and as provided for in any applicable law, including, without limitation, any state law based on the Uniform Electronic Transactions Act.

12.12 Captions. The headings used in this Agreement are for convenience only and shall not affect the interpretation of this Agreement.

12.13 Construction of Agreement. The parties mutually acknowledge that they and their attorneys have participated in the preparation and negotiation of this Agreement. In cases of uncertainty this Agreement shall be construed without regard to which of the parties caused the uncertainty to exist.

12.14 Relationship. The relationship of the parties to this Agreement is determined solely by the provisions of this Agreement. The parties do not intend to create any agency, partnership, joint venture, trust, fiduciary or other relationship with duties or incidents different from those of parties to an arm's-length contract.

12.15 Third Parties. Nothing in this Agreement, whether express or implied, is intended to: (a) confer any benefits, rights or remedies under or by reason of this Agreement on any persons other than the express parties to it and their respective permitted successors and assigns; (b) relieve or discharge the obligation or liability of any person not an express party to this Agreement; or (c) give any person not an express party to this Agreement any right of subrogation or action against any party to this Agreement.

13 DEFINITIONS

13.1 Definitions. As used in the Loan Documents, the word "shall" is mandatory, the word "may" is permissive, the word "or" is not exclusive, the words "includes" and "including" are not limiting, the singular includes the plural, and numbers denoting amounts that are set off in brackets are negative. As used in this Agreement, the following capitalized terms have the following meaning:

"**Account**" is any "account" as defined in the Code with such additions to such term as may hereafter be made, and includes, without limitation, all accounts receivable and other sums owing to Borrower.

"**Account Debtor**" is any "account debtor" as defined in the Code with such additions to such term as may hereafter be made.

"**Affiliate**" is, with respect to any Person, each other Person that owns or controls directly or indirectly the Person, any Person that controls or is controlled by or is under common control with the Person, and each of that Person's senior executive officers, directors, partners and, for any Person that is a limited liability company, that Person's managers and members.

"**Agreement**" is defined in the preamble hereof.

"**Borrower**" is defined in the preamble hereof.

"**Borrower's Books**" are all Borrower's books and records including ledgers, federal and state tax returns, records regarding Borrower's assets or liabilities, the Collateral, business operations or financial condition, and all computer programs or storage or any equipment containing such information.

"**Borrowing Resolutions**" are, with respect to any Person, those resolutions adopted by such Person's Board of Directors and delivered by such Person to Lender approving the Loan Documents to which such Person is a party and the transactions contemplated thereby, together with a certificate executed by its secretary on behalf of such Person certifying that (a) such Person has the authority to execute, deliver, and perform its obligations under each of the Loan Documents to which it is a party, (b) that attached as Exhibit A to such certificate is a true, correct, and complete copy of the resolutions then in full force and effect authorizing and ratifying the execution, delivery, and performance by such Person of the Loan Documents to which it is a party, (c) the name(s) of the Person(s) authorized to execute the Loan Documents on behalf of such Person, together with a sample of the true signature(s) of such Person(s), and (d) that Lender may conclusively rely on such certificate unless and until such Person shall have delivered to Lender a further certificate canceling or amending such prior certificate.

"**Business Day**" is any day that is not a Saturday, Sunday or a day on which Lender is closed.

"Cash Equivalents" means (a) marketable direct obligations issued or unconditionally guaranteed by the United States or any agency or any State thereof having maturities of not more than one (1) year from the date of acquisition; (b) commercial paper maturing no more than one (1) year after its creation and having the highest rating from either Standard & Poor's Ratings Group or Moody's Investors Service, Inc.; (c) Lender's certificates of deposit issued maturing no more than one (1) year after issue; and (d) money market funds at least ninety-five percent (95%) of the assets of which constitute Cash Equivalents of the kinds described in clauses (a) through (c) of this definition.

"**Change in Control**" is a transaction in which any "**person**" or "**group**" (within the meaning of Section 13(d) and 14(d)(2) of the Securities Exchange Act of 1934, as amended) becomes the "**beneficial owner**" (as defined in Rule 13d-3 under the Securities Exchange Act of 1934, as amended), directly or indirectly, of greater than 49% of the shares of all classes of stock then outstanding of Borrower ordinarily entitled to vote in the election of directors.

"**Closing Date**" is the date on which all of the conditions of Section 3 of this Agreement have been satisfied or waived by Lender.

"**Code**" is the Uniform Commercial Code, as the same may, from time to time, be enacted and in effect in the State of California; provided, that, to the extent that the Code is used to define any term herein or in any Loan Document and such term is defined differently in different Articles or Divisions of the Code, the definition of such term contained in Article or Division 9 shall govern; provided further, that in the event that, by reason of mandatory provisions of law, any or all of the attachment, perfection, or priority of, or remedies with respect to, Lender's Lien on any Collateral is governed by the Uniform Commercial Code in effect in a jurisdiction other than the State of California, the term "**Code**" shall mean the Uniform Commercial Code as enacted and in effect in such other jurisdiction solely for purposes on the provisions thereof relating to such attachment, perfection, priority, or remedies and for purposes of definitions relating to such provisions.

"**Collateral**" is any and all properties, rights and assets of Borrower described on Exhibit A.

"**Collateral Account**" is any Deposit Account, Securities Account, or Commodity Account.

"**Commodity Account**" is any "commodity account" as defined in the Code with such additions to such term as may hereafter be made.

"**Compliance Certificate**" is that certain certificate in the form attached hereto as Exhibit B.

"**Contingent Obligation**" is, for any Person, any direct or indirect liability, contingent or not, of that Person for (a) any indebtedness, lease, dividend, letter of credit or other obligation of another such as an obligation directly or indirectly guaranteed, endorsed, co-made, discounted or sold with recourse by that Person, or for which

that Person is directly or indirectly liable; (b) any obligations for undrawn letters of credit for the account of that Person; and (c) all obligations from any interest rate, currency or commodity swap agreement, interest rate cap or collar agreement, or other agreement or arrangement designated to protect a Person against fluctuation in interest rates, currency exchange rates or commodity prices; but "Contingent Obligation" does not include endorsements in the ordinary course of business. The amount of a Contingent Obligation is the stated or determined amount of the primary obligation for which the Contingent Obligation is made or, if not determinable, the maximum reasonably anticipated liability for it determined by the Person in good faith; but the amount may not exceed the maximum of the obligations under any guarantee or other support arrangement.

"**Control Agreement**" is any control agreement entered into among the depository institution at which Borrower maintains a Deposit Account or the securities intermediary or commodity intermediary at which Borrower maintains a Securities Account or a Commodity Account, Borrower, and Lender pursuant to which Lender obtains control (within the meaning of the Code) over such Deposit Account, Securities Account, or Commodity Account; provided that, Lender shall not exercise control under any such Control Agreement unless an Event of Default occurs.

"**Copyrights**" are any and all copyright rights, copyright applications, copyright registrations and like protections in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret.

"**Credit Extension**" is the Growth Capital Advance.

"**Default Rate**" is defined in Section 2.2(b).

"**Deposit Account**" is any "deposit account" as defined in the Code with such additions to such term as may hereafter be made.

"**Designated Deposit Account**" is any of Borrower's deposit accounts, including account numbers 3300680880 and 3300680895, maintained with Silicon Valley Bank.

"**Dollars**," "**dollars**" and "**$**" each mean lawful money of the United States.

"**Equipment**" is all "equipment" as defined in the Code with such additions to such term as may hereafter be made, and includes without limitation all machinery, fixtures, goods, vehicles (including motor vehicles and trailers), and any interest in any of the foregoing.

"**ERISA**" is the Employee Retirement Income Security Act of 1974, and its regulations.

"**Event of Default**" is defined in Section 8.

"Final Payment" means a fee (in addition to and not a substitution for any other payment due hereunder) in the amount of One Hundred Eighty Thousand Dollars ($180,000).

"**Funding Date**" is the date on which the Growth Capital Advance is made to or on account of Borrower.

"**GAAP**" is generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other Person as may be approved by a significant segment of the accounting profession, which are applicable to the circumstances as of the date of determination.

"**General Intangibles**" is all "general intangibles" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation, all Intellectual Property, claims, income and other tax refunds, security and other deposits, payment intangibles, contract rights, options to purchase or sell real or personal property, rights in all litigation presently or hereafter pending (whether in contract, tort or otherwise), insurance policies (including without limitation key man, property damage, and business interruption insurance), payments of insurance and rights to payment of any kind.

"**Governmental Approval**" is any consent, authorization, approval, order, license, franchise, permit, certificate, accreditation, registration, filing or notice, of, issued by, from or to, or other act by or in respect of, any Governmental Authority.

"**Governmental Authority**" is any nation or government, any state or other political subdivision thereof, any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative functions of or pertaining to government, any securities exchange and any self-regulatory organization.

"**Growth Capital Advance**" is defined in Section 2.1.1(a).

"**Growth Capital Amortization Date**" means August 1, 2010.

"**Indebtedness**" is (a) indebtedness for borrowed money or the deferred price of property or services, such as reimbursement and other obligations for surety bonds and letters of credit, (b) obligations evidenced by notes, bonds, debentures or similar instruments, (c) capital lease obligations, and (d) Contingent Obligations.

"**Indemnified Person**" is defined in Section 12.2.

"Ingenex" is Ingenex, Inc., a majority-owned Subsidiary of Borrower.

"**Insolvency Proceeding**" is any proceeding by or against any Person under the United States Bankruptcy Code, or any other bankruptcy or insolvency law, including assignments for the benefit of creditors, compositions, extensions generally with its creditors, or proceedings seeking reorganization, arrangement, or other relief.

"**Intellectual Property**" means all of Borrower's right, title, and interest in and to the following:

(a) its Copyrights, Trademarks and Patents;

(b) any and all trade secrets and trade secret rights, including, without limitation, any rights to unpatented inventions, know-how, operating manuals;

(c) any and all source code;

(d) any and all design rights which may be available to Borrower;

(e) any and all claims for damages by way of past, present and future infringement of any of the foregoing, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the Intellectual Property rights identified above; and

(f) all amendments, renewals and extensions of any of the Copyrights, Trademarks or Patents.

"**Interest Only Period**" means the period of time commencing on the Funding Date through the day before the Growth Capital Amortization Date.

"**Inventory**" is all "inventory" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all merchandise, raw materials, parts, supplies, packing and shipping materials, work in process and finished products, including without limitation such inventory as is temporarily out of Borrower's custody or possession or in transit and including any returned goods and any documents of title representing any of the above.

"**Investment**" is any beneficial ownership interest in any Person (including stock, partnership interest or other securities), and any loan, advance or capital contribution to any Person.

"**IP Agreement**" is that certain Intellectual Property Security Agreement executed and delivered by Borrower to Lender dated as of the Closing Date.

"Key Person" is any of the President or Executive Chairman of the Board of Borrower.

"**Lender**" is defined in the preamble hereof.

"**Lender Expenses**" are all audit fees (provided that Borrower shall not be responsible to reimburse Lender for audit fees incurred by Lender for more than one (1) audit per fiscal year unless such additional audit is conducted following the occurrence of an Event of Default) and reasonable expenses, costs, and expenses (including reasonable attorneys' fees and expenses) for preparing, amending, negotiating, administering, defending and enforcing the Loan Documents (including, without limitation, those incurred in connection with appeals or Insolvency Proceedings) or otherwise incurred with respect to Borrower in connection with the transactions contemplated hereby.

"**LIBOR Rate**" means, an interest rate *per annum* (rounded upward, if necessary, to the nearest 1/10,000th of one percent (0.0001%)) equal to LIBOR on the applicable Funding Date.

"**LIBOR Margin**" is 12.72%.

"**LIBOR**" means the rate of interest per annum determined by Lender to be the per annum rate of interest at which deposits in United States Dollars are offered to Lender in the London interbank market (rounded upward, if necessary, to the nearest 1/10,000th of one percent (0.0001%)) in which Lender customarily participates at 11:00 a.m. (local time in such interbank market) for a 3-month period and published in The Wall Street Journal two (2) Business Days prior to the making of the Growth Capital Advance and in an amount approximately equal to the amount of the Growth Capital Advance.

"**Lien**" is a claim, mortgage, deed of trust, levy, charge, pledge, security interest or other encumbrance of any kind, whether voluntarily incurred or arising by operation of law or otherwise against any property.

"**Loan Documents**" are, collectively, this Agreement, the IP Agreement, the Perfection Certificate, the Promissory Note, any other note, or notes or guaranties executed by Borrower or any Subsidiary, and any other present or future agreement between Borrower and/or any Subsidiary and/or for the benefit of Lender in connection with this Agreement, all as amended, restated, or otherwise modified.

"**Material Adverse Change**" is (a) a material impairment in the perfection or priority of Lender's Lien in the Collateral or in the value of such Collateral; (b) a material adverse change in the business, operations, or condition (financial or otherwise) of Borrower; or (c) a material impairment of the prospect of repayment of any portion of the Obligations.

"**Maturity Date**" is January 1, 2013, or such earlier date as the Growth Capital Advance or any portion of the Obligations is accelerated, whether by prepayment or otherwise.

"**Obligations**" are Borrower's obligation to pay when due any debts, principal, interest, Lender Expenses and other amounts Borrower owes Lender now or later, whether under this Agreement, the Loan Documents, or otherwise, including, without limitation, all obligations relating to letters of credit (including reimbursement obligations for drawn and undrawn letters of credit), cash management services, and foreign exchange contracts, if any, and including interest accruing after Insolvency Proceedings begin and debts, liabilities, or obligations of Borrower assigned to Lender, and the performance of Borrower's duties under the Loan Documents.

"Operating Documents" are, for any Person, such Person's formation documents, as certified with the Secretary of State of such Person's state of formation on a date that is no earlier than 30 days prior to the Closing Date, and, (a) if such Person is a corporation, its bylaws in current form, (b) if such Person is a limited liability

company, its limited liability company agreement (or similar agreement), and (c) if such Person is a partnership, its partnership agreement (or similar agreement), each of the foregoing with all current amendments or modifications thereto.

"**Patents**" means all patents, patent applications and like protections including without limitation improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same.

"**Perfection Certificate**" is defined in Section 5.1.

"**Permitted Distributions**" means:

(a) purchases of capital stock from former employees, consultants and directors pursuant to repurchase agreements or other similar agreements in an aggregate amount not to exceed $100,000 in any fiscal year, provided that at the time of such purchase no Event of Default has occurred and is continuing;

(b) distributions or dividends consisting solely of Borrower's capital stock;

(c) purchases for value of any rights distributed in connection with any stockholder rights plan;

(d) purchases of capital stock or options to acquire such capital stock with the proceeds received from a substantially concurrent issuance of capital stock or convertible securities;

(e) purchases of capital stock pledged as collateral for loans to employees; and

(f) purchases of capital stock in connection with the exercise of stock options or stock appreciation rights by way of cashless exercise or in connection with the satisfaction of withholding tax obligations.

"**Permitted Indebtedness**" is:

(a) Borrower's Indebtedness to Lender under this Agreement and any other Loan Document;

(b) (i) any Indebtedness that does not exceed $100,000 in principal amount existing on the Closing Date, and (ii) any Indebtedness in excess of $100,000 in principal amount existing on the Closing Date and shown on the Perfection Certificate;

(c) Subordinated Debt;

(d) unsecured Indebtedness to trade creditors incurred in the ordinary course of business;

(e) capitalized leases and purchase money Indebtedness not to exceed $100,000 in the aggregate in any fiscal year secured by Permitted Liens;

(f) Indebtedness for deferred compensation in accordance with, and subject to the terms and conditions of, Section 7.11(iii); and

(g) refinanced Permitted Indebtedness, provided that the amount of such Indebtedness is not increased except by an amount equal to a reasonable premium or other reasonable amount paid in connection with such refinancing and by an amount equal to any existing, but unutilized, commitment thereunder.

"**Permitted Investments**" are:

(a) Investments shown on the Perfection Certificate and existing on the Closing Date;

(b) Investments permitted by Borrower's investment policy, as amended from time to time, provided that such investment policy (and any amendment thereto) has been approved by Lender;

(c) Investments (i) by Borrower in Subsidiaries not to exceed $100,000 in the aggregate in any fiscal year and (ii) by Subsidiaries in other Subsidiaries not to exceed $100,000 in the aggregate in any fiscal year or in Borrower; provided that neither Borrower nor any Subsidiary shall make any investment in Ingenex, provided that Borrower may make investments in or for the benefit of Ingenex not to exceed $60,000 per year on account of the license arrangement between Ingenex and Pfizer;

(d) Investments consisting of Collateral Accounts in the name of Borrower or any Subsidiary so long as Lender has a first priority, perfected security interest in such Collateral Accounts;

(e) Investments (including debt obligations) received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the ordinary course of business;

(f) Investments permitted by Section 7.3; and

(g) joint ventures or strategic alliances in the ordinary course of Borrower's business consisting of (A) (i) non-exclusive licenses of Intellectual Property granted to third parties in the ordinary course of business, and (ii) licenses of Intellectual Property that could not result in a legal transfer of title of the licensed property that may be exclusive in respects other than territory and that may be exclusive as to territory only as to discreet geographical areas outside of the United States; (B) the development of such Intellectual Property; or (C) the providing of technical support; provided that any cash investments by Borrower do not exceed $100,000 in the aggregate in any fiscal year; provided further that that the foregoing dollar limitation shall not be applicable in connection with any joint venture or strategic alliance entered into for the development of Probuphine, provided that (x) Borrower at all times maintains all ownership and title to the Probuphine product line and the underlying Intellectual Property related thereto, and (y) Borrower does not transfer any cash or other Collateral to any joint venture counterparty or strategic alliance counterparty in connection with any such joint venture or strategic alliance.

Notwithstanding the foregoing, Permitted Investments shall not include, and Borrower and each Subsidiary is prohibited from purchasing, purchasing participations in, entering into any type of swap or other equivalent derivative transaction, or otherwise holding or engaging in any ownership interest in any type of debt instrument, including, without limitation, any corporate or municipal bonds with a long-term nominal maturity for which the interest rate is reset through a dutch auction and more commonly referred to as an "auction rate security."

"**Permitted Liens**" are:

(a) (i) Liens securing Permitted Indebtedness described under clause (b) of the definition of "Permitted Indebtedness" or (ii) Liens arising under this Agreement or other Loan Documents;

(b) Liens for taxes, fees, assessments or other government charges or levies, either not delinquent or being contested in good faith and for which Borrower maintains adequate reserves on its Books, provided that no notice of any such Lien has been filed or recorded under the Internal Revenue Code of 1986, as amended, and the Treasury Regulations adopted thereunder, if such Lien would be superior to any of Lender's Liens securing the Obligations;

(c) Liens (including with respect to capital leases) (i) on property (including accessions, additions, parts, replacements, fixtures, improvements and attachments thereto, and the proceeds thereof) acquired or held by Borrower or its Subsidiaries (other than Ingenex) incurred for financing such property (including accessions, additions, parts, replacements, fixtures, improvements and attachments thereto, and the proceeds thereof) other than Accounts, or (ii) existing on property (and accessions, additions, parts, replacements, fixtures, improvements and attachments thereto, and the proceeds thereof) when acquired other than Accounts, if the Lien is confined to such property (including accessions, additions, parts, replacements, fixtures, improvements and attachments thereto, and the proceeds thereof);

(d) Liens incurred in the extension, renewal or refinancing of the indebtedness secured by Liens described in (a) through (c), but any extension, renewal or replacement Lien must be limited to the property encumbered by the existing Lien and the principal amount of the indebtedness it secures may not increase;

(e) leases or subleases of real property granted in the ordinary course of Borrower's business, and leases, subleases, non-exclusive licenses or sublicenses of personal property (other than Intellectual Property) granted in the ordinary course of Borrower's business, if the leases, subleases, licenses and sublicenses do not prohibit granting Lender a security interest therein;

(f) (i) non-exclusive licenses of Intellectual Property granted to third parties in the ordinary course of business, and (ii) licenses of Intellectual Property that could not result in a legal transfer of title of the licensed property that may be exclusive in respects other than territory and that may be exclusive as to territory only as to discreet geographical areas outside of the United States;

(g) leases or subleases granted in the ordinary course of Borrower's business, including in connection with Borrower's leased premises or leased property;

(h) Liens in favor of other financial institutions arising in connection with Borrower's deposit or securities accounts held at such institutions;

(i) Liens of carriers, warehousemen, suppliers, or other Persons that are possessory in nature arising in the ordinary course of business so long as such Liens attach only to Inventory, securing liabilities in the aggregate amount not to exceed $100,000 and which are not delinquent or remain payable without penalty or which are being contested in good faith and by appropriate proceedings which proceedings have the effect of preventing the forfeiture or sale of the property subject thereto;

(j) Liens to secure payment of workers' compensation, employment insurance, old-age pensions, social security and other like obligations incurred in the ordinary course of business (other than Liens imposed by ERISA); and

(k) Liens other than those described above which do not at any time exceed $25,000 in the aggregate.

"**Person**" is any individual, sole proprietorship, partnership, limited liability company, joint venture, company, trust, unincorporated organization, association, corporation, institution, public benefit corporation, firm, joint stock company, estate, entity or government agency.

"Promissory Note" means the Secured Promissory Note in substantially the form attached hereto as Exhibit C.

"**Registered Organization**" is any "registered organization" as defined in the Code with such additions to such term as may hereafter be made

"**Requirement of Law**" is as to any Person, the organizational or governing documents of such Person, and any law (statutory or common), treaty, rule or regulation or determination of an arbitrator or a court or other Governmental Authority, in each case applicable to or binding upon such Person or any of its property or to which such Person or any of its property is subject.

"**Responsible Officer**" is any of the Executive Chairman, President, Chief Financial Officer and Controller of Borrower.

"**Restricted License**" is any material license or other material agreement with respect to which Borrower is the licensee (a) that prohibits or otherwise restricts Borrower from granting a security interest in Borrower's interest in such license or agreement or any other property, or (b) for which a default under or termination of could interfere with the Lender's right to sell any Collateral.

"**Securities Account**" is any "securities account" as defined in the Code with such additions to such term as may hereafter be made.

"**Subordinated Debt**" is (a) Indebtedness incurred by Borrower subordinated to Borrower's Indebtedness owed to Lender and which is reflected in a written agreement in a manner and form reasonably acceptable to Lender and approved by Lender in writing, and (b) to the extent the terms of subordination do not change adversely to Lender, refinancings, refundings, renewals, amendments or extensions of any of the foregoing.

"**Subsidiary**" is, as to any Person, a corporation, partnership, limited liability company or other entity of which shares of stock or other ownership interests having ordinary voting power (other than stock or such other ownership interests having such power only by reason of the happening of a contingency) to elect a majority of the board of directors or other managers of such corporation, partnership or other entity are at the time owned, or the management of which is otherwise controlled, directly or indirectly through one or more intermediaries, or both, by such Person. Unless the context otherwise requires, each reference to a Subsidiary herein shall be a reference to a Subsidiary of Borrower.

"**Trademarks**" means any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Borrower connected with and symbolized by such trademarks.

"**Transfer**" is defined in Section 7.1.

"**Warrant**" is that certain Warrant to Purchase Stock dated as of the Closing Date executed by Borrower in favor of Lender.

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the Closing Date.

BORROWER:

TITAN PHARMACEUTICALS, INC.

By _____

Name: _____

Title: _____

LENDER:

OXFORD FINANCE CORPORATION

By _____

Name: _____

Title: _____

EXHIBIT A – COLLATERAL DESCRIPTION

The Collateral consists of all of Borrower's right, title and interest in and to the following personal property:

All goods, Accounts (including health-care receivables), Equipment, Inventory, contract rights or rights to payment of money (including but not limited to any royalty or similar rights to payment arising under or related to that certain Sublicense Agreement among Borrower and Novartis Pharma A.G. (and is successors and assigns, "Novartis") dated as of November 20, 1997 and that certain Sublicense Agreement among Novartis and Vanda Pharmaceuticals, Inc. (and its successors and assigns) dated as of June 4, 2004; each as amended from time to time), leases, license agreements, franchise agreements, General Intangibles, commercial tort claims, documents, instruments (including any promissory notes), chattel paper (whether tangible or electronic), cash, deposit accounts, fixtures, letters of credit rights (whether or not the letter of credit is evidenced by a writing), securities, and all other investment property, supporting obligations, and financial assets, whether now owned or hereafter acquired, wherever located; and

All Borrower's Books relating to the foregoing, and any and all claims, rights and interests in any of the above and all substitutions for, additions, attachments, accessories, accessions and improvements to and replacements, products, proceeds and insurance proceeds of any or all of the foregoing.

EXHIBIT B - COMPLIANCE CERTIFICATE

TO: OXFORD FINANCE CORPORATION
FROM: TITAN PHARMACEUTICALS, INC.

Date: _____

The undersigned authorized officer of TITAN PHARMACEUTICALS, INC. ("Borrower") certifies that under the terms and conditions of the Loan and Security Agreement between Borrower and Oxford Finance Corporation (the "Agreement"):

(1) Borrower is in complete compliance for the period ending with all required covenants except as noted below; (2) there are no Events of Default; (3) all representations and warranties in the Agreement are true and correct in all material respects on this date except as noted below; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date; (4) Borrower, and each of its Subsidiaries, has timely filed all required tax returns and reports, and Borrower has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower except as otherwise permitted pursuant to the terms of Section 5.8 of the Agreement; and (5) no Liens have been levied or claims made against Borrower (or any of its Subsidiaries) relating to unpaid employee payroll or benefits of which Borrower has not previously provided written notification to Lender.

Attached are the required documents supporting the certification. The undersigned certifies that these are prepared in accordance with GAAP consistently applied from one period to the next except as explained in an accompanying letter or footnotes. The undersigned acknowledges that no borrowings may be requested at any time or date of determination that Borrower is not in compliance with any of the terms of the Agreement, and that compliance is determined not just at the date this certificate is delivered. Capitalized terms used but not otherwise defined herein shall have the meanings given them in the Agreement.

Please indicate compliance status by circling Yes/No under "Complies" column.

Reporting Covenant	Required	Complies
Monthly financial statements with Compliance Certificate	Monthly within 45 days (prior to Section 12 registered securities)	Yes No
Quarterly financial statements with Compliance Certificate	Quarterly within 45 days (Section 12 registered securities)	Yes No
Annual financial statement (CPA Audited) + CC	FYE within 120 days	Yes No
10-Q, 10-K and 8-K	Within 5 days after filing with SEC*	Yes No

* deemed delivered when posted on Borrower's website

The following Intellectual Property was registered (or a registration application submitted) after the Closing Date (if no registrations, state "None")

Financial Covenant	Required	Actual	Complies
None			

The following are the exceptions with respect to the certification above: (If no exceptions exist, state "No exceptions to note.")

TITAN PHARMACEUTICALS, INC.

By: _____

Name: _____

Title: _____

LENDER USE ONLY

Received by: _____

AUTHORIZED SIGNER

Date: _____

Verified: _____

AUTHORIZED SIGNER

Date: _____

Compliance Status: Yes No

EXHIBIT C

FORM OF SECURED PROMISSORY NOTE

$3,000,000 Dated: December 23, 2009

FOR VALUE RECEIVED, the undersigned, TITAN PHARMACEUTICALS, INC., a Delaware corporation ("Borrower"), HEREBY PROMISES TO PAY to the order of OXFORD FINANCE CORPORATION ("Lender") the principal amount of Three Million Dollars ($3,000,000) or such lesser amount as shall equal the outstanding principal balance of the Growth Capital Advance made to Borrower by Lender pursuant to the Loan Agreement (defined below), and to pay all other amounts due with respect to the Growth Capital Advance on the dates and in the amounts set forth in the Loan Agreement. Capitalized terms, unless defined in this Secured Promissory Note (this "Note"), shall have the meaning given such capitalized term in the Loan Agreement.

Interest on the principal amount of this Note from the date of this Note shall accrue at 13% per annum based on a 360-day year of twelve 30-day months or, if applicable, the Default Rate. Commencing on August 1, 2010, and continuing on the first day of each successive calendar month thereafter, Borrower shall make to Lender thirty (30) equal payments of principal and accrued interest on the then outstanding principal amount. Any and all remaining principal and interest shall be due and payable on the Maturity Date. In addition to the foregoing payments, on the Maturity Date (or upon earlier repayment, whether as a result of acceleration or otherwise) the Final Payment in the amount of One Hundred Eighty Thousand Dollars ($180,000) shall be due and payable by Borrower to Lender.

Principal, interest and all other amounts due with respect to the Growth Capital Advance, are payable in lawful money of the United States of America to Lender as set forth in the Loan Agreement. The principal amount of this Note and the interest rate applicable thereto, and all payments made with respect thereto, shall be recorded by Lender and, prior to any transfer hereof, endorsed on the grid attached hereto which is part of this Note.

This Note is the Note referred to in, and is entitled to the benefits of, the Loan and Security Agreement, dated as of the Closing Date (as defined therein), to which Borrower and Lender are parties (as amended from time to time, the "Loan Agreement"). The Loan Agreement, among other things, (a) provides for the making of this secured Growth Capital Advance to Borrower, and (b) contains provisions for acceleration of the maturity hereof upon the happening of certain stated events.

This Note may not be prepaid except as provided in the Loan Agreement. This Note and the obligation of Borrower to repay the unpaid principal amount of the Growth Capital Advance, interest on the Growth Capital Advance and all other amounts due Lender under the Loan Agreement is secured under the Loan Agreement.

Presentment for payment, demand, notice of protest and all other demands and notices of any kind in connection with the execution, delivery, performance and enforcement of this Note are hereby waived.

Borrower shall pay all reasonable fees and expenses, including, without limitation, reasonable attorneys' fees and costs, incurred by Lender in the enforcement or attempt to enforce any of Borrower's obligations hereunder not performed when due. This Note shall be governed by, and construed and interpreted in accordance with, the laws of the State of California.

[Balance of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties hereto have caused this Note to be executed as of the Closing Date.

TITAN PHARMACEUTICALS, INC.

By: _____

Name: _____

Title _____

[Signature Page to Secured Promissory Note]

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the use in this Registration Statement on Form 10 of our report dated November 20, 2009 relating to the consolidated financial statements of Titan Pharmaceuticals, Inc. as of December 31, 2008 and 2007 and for each of the three years in the period ended December 31, 2008.

We also consent to the reference to our firm under the heading "Experts" in this Registration Statement.

/s/ ODENBERG, ULLAKKO, MURANISHI & CO. LLP

San Francisco, California
January 13, 2010