

U. S. SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D. C. 20549
FORM 10-KSB

/X/ Annual Report under Section 13 or 15(d) of the Securities Exchange Act
of 1934 (Fee required)
For the fiscal year ended December 31, 1996

OR

/ / Transition report under Section 13 or 15(d) of the Securities Exchange
Act of 1934 (No fee required)
For the transition period from to .

Commission file number 0-27436

TITAN PHARMACEUTICALS, INC.

(Name of Small Business Issuer in Its Charter)

DELAWARE 94-3171940

(State or Other Jurisdiction of (I.R.S. Employer
Incorporation or Organization) Identification No.)

400 OYSTER POINT BLVD., SUITE 505, SOUTH SAN FRANCISCO, CA 94080
(Address of Principal Executive Offices including zip code)

(415) 244-4990

(Issuer's Telephone Number, Including Area Code)

Securities registered under Section 12(b) of the Exchange Act:

Title of Each Class	Name of Each Exchange on Which Registered
None	None

Securities registered under Section 12(g) of the Exchange Act:

Common Stock, \$.001 par value	Class A Warrants
(Title of Class)	(Title of Class)

Check whether the issuer: (1) filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the past 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES NO X .

Check if there is no disclosure of delinquent filers in response to Item 405 of Regulation S-B contained in this form, and no disclosure will be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-KSB or any amendment to this Form 10-KSB. /X/

State issuer's revenues for its most recent fiscal year: \$258,811.

State the aggregate market value of the voting stock held by non-affiliates computed by reference to the price at which the stock was sold, or the average bid and asked prices of such stock, as of March 26, 1997: \$39,649,165.

State the number of shares outstanding of each of the issuer's common equity as of March 26, 1997: 13,046,102 shares of Common Stock, \$.001 par value.

PART I

ITEM 1. DESCRIPTION OF BUSINESS.

GENERAL

Titan Pharmaceuticals, Inc. ("Titan" or the "Company") is a biopharmaceutical company engaged in the identification and acquisition of products or technologies with applications in the areas of cancer, disorders of the central nervous system ("CNS") and other life-threatening diseases, for further research and development by the Company and various subsidiaries of the Company. Certain of the Company's operations are currently conducted through five entities (the "Operating Companies"): Ansan Pharmaceuticals, Inc. ("Ansan"), a company engaged in the development of small molecule-based therapeutics intended for the treatment of cancer and other life threatening diseases; Ingenex, Inc. ("Ingenex"), a company engaged in the development of proprietary gene-based therapies and the application of functional genomics to pharmaceutical discovery initially for the treatment of cancer and certain viral diseases; ProNeura, Inc. ("ProNeura"), a company engaged in research and development activities relating to a polymeric implantable drug delivery technology; Theracell, Inc. ("Theracell"), a company engaged in the development of cell-based therapeutics intended for the restorative treatment of neurologic diseases and central nervous system disorders; and Trilex Pharmaceuticals, Inc. ("Trilex"), a company engaged in research and development of therapeutic cancer

vaccines utilizing anti-idiotypic antibody technology. As a result of its initial public offering in August 1995 and subsequent share issuances, Titan's ownership interest in Ansan was reduced to approximately 43% resulting in its deconsolidation by the Company in its financial statements. The other operating companies have remained as consolidated subsidiaries.

The Company was incorporated in Delaware in February 1992 and has been funded through private placements of its securities, as well as an initial public offering of its securities (the "IPO") in January 1996.

References to the Company herein include the operations of the Operating Companies. References to the Company's products are deemed to include those products under development by the Operating Companies.

The statements in this report which are not historical facts are forward-looking statements that involve risks and uncertainties, including, but not limited to, the results of research and development efforts, the results of preclinical and clinical testing, the effect of regulation by the United States Food and Drug Administration ("FDA") and other agencies, the impact of competitive products, product development, commercialization and technological difficulties, the results of financing efforts, the effect of the Company's accounting policies, and other risks detailed in the Company's Securities and Exchange Commission filings.

STRATEGY

Titan participates in the development and growth of the Operating Companies by identifying and acquiring products or technologies and by providing initial financing, management expertise and other resources. In acquiring synergistic technologies with applications in the areas of cancer, CNS disorders and other life-threatening diseases, the Company pursues opportunities that encompass the full breadth of mainstream therapeutic approaches to drug discovery, including small molecule therapy, gene therapy and cell therapy. The Company believes its strategy may enhance product development opportunities and result in more efficient use of limited resources. The Company intends, if sufficient financing can be obtained, to continue to build value through identifying and acquiring additional complementary technologies or products, and/or development-stage biopharmaceutical companies.

The Company's strategy is to develop acquired products and/or technologies to the stage of initial clinical testing and to seek joint venture, licensing or other collaborative arrangements with one or more pharmaceutical companies which will help bear the cost of the regulatory approval process necessary to commercialize therapeutics in the United States and in foreign markets, as well as to market any products which may be successfully developed and approved for commercialization. It is not anticipated that any of the Company's proposed products will receive the requisite regulatory approval for commercialization in the United States or elsewhere for a number of years, if at all.

TITAN AND THE OPERATING COMPANIES

In January 1997, the Company entered into a license agreement (the "HMR Agreement") with Hoechst Marion Roussel, Inc. ("HMR"), effective as of December 31, 1996, pursuant to which it acquired an exclusive worldwide license to the antipsychotic agent Iloperidone.

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Iloperidone is an antipsychotic agent in development for treatment of schizophrenia and related disorders. Schizophrenia strikes early in life and is generally viewed as a chronic, life-long disorder. Schizophrenia is characterized by the presence of "positive" symptoms, such as delusions, hallucinations, disorganized speech, and disorganized or catatonic behavior and "negative" symptoms such as withdrawal and apathy. According to the World Health Organization, approximately 45 million people worldwide have some form of schizophrenia or a related psychotic disorder.

Iloperidone is one of a new class of antipsychotic medications, referred to as atypical antipsychotics, which are believed to be effective against most of the symptoms of schizophrenia with a lower incidence of side effects than older medications. The results of Phase II trials, which were completed in 1996, demonstrate that Iloperidone may provide effective treatment against both positive and negative symptoms of schizophrenia, with low incidence of extrapyramidal symptoms ("EPS"), the most frequent to occur of the side effects associated with older antipsychotic compounds currently on the market. In the Phase II trials, Iloperidone was administered to approximately 150 patients in various doses. At the most frequently studied dose of 8 mg per day, EPS incidence did not differ from placebo treated patients. At higher doses, administered in the absence of placebo comparators, there was minimal indication of EPS. Phase II tolerance data also supported the safety of Iloperidone at doses of up to 32 mg per day. During initial dose titration, transient postural hypotension, a property typical of antipsychotics, was easily controlled by administration concurrent with food. Iloperidone is expected to enter Phase III clinical trials in 1997.

ANSAN

Ansan is engaged in the research and development of small molecule therapies intended to treat cancer, blood disorders and other serious diseases. Ansan's initial product under development, Pivanex-TM-, is derived from AN9, a patented analog of butyric acid, and is intended for the treatment of cancer by promoting cellular differentiation. Traditional cytotoxic chemotherapeutics tend to kill cancer cells preferentially because cancer cells divide more often and more rapidly than most normal cells. Unfortunately, such agents may also kill rapidly dividing normal cells, including blood cells and cells of the intestine lining, which leads to side effects such as anemia, nausea, vomiting and risk of infection. Unlike traditional cytotoxic chemotherapy, differentiation therapy represents a relatively new direction in cancer research, and involves the development of agents that, in contrast to the function of cytotoxic agents, induce cancer cells to differentiate, mature and exhibit more normal growth properties. Differentiation therapy may also lead to apoptosis, or what is known as normal "programmed cell death," resulting in the destruction of the cancer cells while sparing normal cells. Pivanex-TM- is currently in Phase I clinical trials.

It has been previously shown in laboratory testing that direct application of a solution of AN9 to human melanoma cells can inhibit growth of this type of cancer. Ansan has been performing certain experiments to enable the filing of an IND for a newly developed topical formulation of AN9 ("AN9 Topical"). Ansan has met with the FDA regarding such an effort, and as a result, may decide to file an IND to proceed with clinical testing of AN9 Topical in the future. However, certain additional toxicology studies must be completed before an IND can be submitted.

Ansan is also developing Novaheme-TM-, which is derived from AN10, another novel analog of butyric acid, and which is intended for the treatment of sickle cell anemia and BETA-thalassemia, genetic disorders that impair one's ability to produce normal adult hemoglobin, the oxygen carrying protein of red blood cells. Initial preclinical experiments indicate that Novaheme-TM- appears to be more potent at increasing fetal hemoglobin levels than its competitors (including butyric acid, hydroxyurea and isobutyramide). Ansan believes that Novaheme-TM- may also prove to exhibit lower toxicity than certain of the other current treatment options (such as the cytotoxic agent hydroxyurea) and may, therefore, prove useful in the treatment of such blood disorders.

Ansan is also pursuing a development program with a topical formulation of AN10 ("AN10 Topical"). Recent animal studies suggest that AN10 Topical may prove to have potential utility in reducing chemotherapy-induced alopecia, or hair loss, in patients with cancer. Ansan expects to complete certain animal and laboratory testing, and plans to file an IND for AN10 Topical during the first half of 1997.

Ansan is also attempting to broaden its portfolio of drug development candidates through in-licensing. Target drugs have patent protection, novel applications and development needs suitable to the current organization of Ansan. In May 1996, Ansan acquired rights from Boehringer Ingelheim to develop an intravenous formulation of the drug apafant for all clinical indications. Apafant was originally developed by Boehringer Ingelheim as an

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oral treatment for asthma. Boehringer Ingelheim has previously conducted extensive clinical trials in the US and in other countries using the oral form of the drug.

Ansan is now pursuing a development program for an injectable formulation of apafant for the treatment of acute pancreatitis. Acute pancreatitis is an inflammation of the pancreas. Its causes include gallstones, alcohol abuse and infection. Patients with moderate to severe pancreatitis receive only supportive care in an intensive care unit. During an episode of pancreatitis, patients are at risk of organ failure, including loss of lung, kidney and liver function. In a significant number of cases pancreatitis is fatal. There is currently no FDA approved therapy for the treatment of pancreatitis.

Apafant is a platelet activating factor ("PAF") antagonist. PAF is an inflammatory substance produced in the body that is known to play a role in acute pancreatitis. In certain experiments, acute pancreatitis, and the resulting end organ damage and failure, can be induced in laboratory animals by the injection of PAF. Treatment with apafant has been demonstrated to protect laboratory animals in certain models of PAF-induced organ damage, as well as other models of multiple organ system failure. The Company believes that a drug that can prevent organ damage and failure could be beneficial in treating patients with pancreatitis.

The Company plans file an IND for apafant for acute pancreatitis during 1997. There can be no assurance that the IND will be filed in a timely manner or at all and no assurance that the FDA will approve the IND if one is filed.

In August 1995, Ansan completed an initial public offering of its securities. Its common stock is currently traded on the Nasdaq SmallCap Market under the symbol ANSN. In March 1997, Titan and Ansan entered into an agreement for financing pursuant to which Titan was granted the option to reacquire and maintain a majority equity ownership interest in Ansan in consideration for Titan advancing Ansan \$1,000,000 evidenced by a convertible debenture. See "Item 6. Management's Discussion and Analysis or Plan of Operations."

INGENEX

Ingenex is engaged in the research and development of gene-based therapeutics and efforts to discover medically important genes intended initially for the treatment of cancer and certain viral diseases. Gene therapy is an approach to the treatment and prevention of genetic and acquired diseases that involves the insertion of new genetic information into target cells to produce specific proteins or effect changes in the regulation of gene expression needed to correct or modulate disease conditions. The operations of Ingenex are focused on developing the proprietary gene component of gene-therapy products (as opposed to the vector used to insert the gene). To this end, Ingenex has licensed three core technologies, one of which is an enabling technology which identifies new gene therapy products (the GSX-TM- System), and two of which are gene therapy product candidates (MDRx1-TM- and RB94).

Ingenex is currently developing two potential gene therapy products for the treatment of cancer, including a novel gene therapy program designed to protect normal bone marrow and blood cells in an effort to improve the effectiveness of chemotherapy against many common cancers, including breast, ovarian and lung cancer. Ingenex and its collaborators are developing a gene-based chemoprotective product, MDRx1-TM-, to genetically engineer multidrug resistance into blood progenitor (or stem) cells in order to protect these otherwise sensitive normal cells from chemotherapy toxicity. MDRx1-TM- utilizes the human multi-drug resistance gene (MDR1) which encodes "P-glycoprotein," a membrane protein capable of pumping a variety of chemicals out of cells. MDRx1-TM- involves the insertion of the MDR1 gene ex vivo into stem cells that have been removed from cancer patients in order to render some portion of the stem cells resistant to chemotherapeutic agents. The modified stem cells are then reinfused into the patients where they repopulate the blood system with chemo-resistant blood cells. The conferred resistance would potentially allow patients to be given higher doses of anti-cancer agents than could be given under normal circumstances (i.e., if the bone marrow was not protected). Bone marrow suppression is the biggest dose-limiting toxicity factor in the treatment of cancer patients because chemotherapy must be interrupted or reduced in order to allow the bone marrow to recover. MDRx1-TM- may allow for the administration of greater or more frequent doses of chemotherapy while protecting the bone marrow and peripheral blood cells. If this approach proves successful, it is also possible that MDR1 will be utilized as a co-selective gene to help introduce and maintain other genes of potential therapeutic value in human cells.

Clinical testing is in progress at MD Anderson Cancer Center, Houston, Texas of a preliminary form of MDRx1-TM- with patients being treated for ovarian cancer (since December 1994) and with patients being treated for breast cancer (since January 1995) to determine whether the MDR1 gene can be introduced and maintained in

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humans. The clinical testing involves introducing ex vivo the MDR1 gene in human blood stem cells extracted from the bone marrow of cancer patients and then reintroducing the cells, which have been made resistant to chemotherapeutic agents, where they quickly repopulate the hematopoietic system. To date, the results of such testing show that the MDR1 gene has been successfully introduced into a fraction of the donor bone marrow of most or all of the patients in the study. There are a number of issues which will need to be addressed in the event the outcome of the ongoing studies is positive, including ascertaining the optimal vector for the MDR1 gene and contracting for large scale production of the final product.

Ingenex is developing a second product, RB94, based on a tumor suppressor gene, for the treatment of solid tumors. RB94 is a gene therapy product in preclinical development that combines a truncated variant (p94) of a tumor suppressor gene (the "RB gene") with a viral vector. Although reintroducing the RB gene itself into RB deficient tumor cells inhibits the growth of these cells, it sometimes does so incompletely and tumor regrowth occurs in reconstituted cells after a period of latency. Ingenex believes the form of the RB protein encoded by the RB94 gene therapy product is more effective at causing suppression of tumor cells than the full-length RB protein, based on data demonstrating in vitro suppression of numerous tumor types tested to date, including tumors of the bladder, prostate, cervix, bone, breast, lung and fibrous tissue. In addition, preliminary experiments indicate the modified gene is effective in suppressing some cancer cell lines in vitro that continue to contain the functional native gene.

The potential gene therapy product RB94 will consist of the modified RB gene and an appropriate liposome or viral vector. The product would be

delivered directly to tumor cells through local application. In collaboration with Baylor College of Medicine, Ingenex is currently testing RB94 in preclinical studies of solid tumors in mouse models. There can be no assurance, however, that the results of such studies will be positive or that positive results would correlate to similar results in human subjects.

The GSX-TM- System being developed by Ingenex and its collaborators is a proprietary method for rapidly identifying and isolating specific fragments of genes, known as genetic suppressor elements ("GSEs"), that interfere with a given biologic or disease process. The GSX-TM- System selects the portion or portions of the gene or genes that confer(s) a specific, desired behavior to cells and does so via a system that utilizes "Darwinian selection" or survival of the GSE with the most desired behavior. Such behavior could include resistance to viruses, tolerance of harmful drug side effects, reversal of cancerous cellular transformation, or other desirable properties. Ingenex believes that the GSX-TM- System represents a new approach to gene discovery based on its ability to provide information regarding the function of discovered genes. While Ingenex believes that the GSX-TM- System has broad application, Ingenex intends to use it initially to identify gene-based therapeutics for the treatment of viral diseases, such as AIDS. Ingenex also is exploring the use of the GSX-TM- System to discover novel therapeutics for cancer and other diseases characterized by aberrant cellular function.

Ingenex has obtained licenses under patents and patent applications relating to each of the core technologies relating to its various products under development and its gene discovery system. These include an issued United States patent and patent applications directed to certain aspects of the GSX-TM- System; an issued United States patent directed to a nucleic acid encoding the human MDR1 protein responsible for multidrug resistance; an issued United States patent directed to a monoclonal antibody, that can be used to reverse multidrug resistance; an issued United States patent relating to the use of MDR gene in creating and selecting drug resistant mammalian cells; and an allowed United States patent application directed to DNA molecules that encode the tumor-suppressing protein p94RB (the protein relevant to the Company's potential RB94 product), and related pending applications directed to methods of gene therapy and the protein. The issued patents expire in either 2010 or 2012.

Titan currently owns approximately 81% of the outstanding capital stock of Ingenex.

THE RACELL

Theracell is engaged in the research and development of cell-based therapeutics intended for use in the restorative treatment of neurologic diseases and other serious brain disorders. A majority of neurological disorders, including Parkinson's disease, Alzheimer's disease, stroke and epilepsy, occur when brain cells (neurons) die. Because neurons cannot regenerate, most current pharmaceutical therapies are directed toward amplifying the function of the remaining neurons, an approach which becomes less effective over time as an increasing number of the neurons die. Theracell's proprietary technologies enable the development of cell-based therapies for minimally-

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invasive, site specific (i.e., stereotaxic) delivery to the central nervous system ("CNS") to replace or provide therapeutic factors precisely where they are needed in order to treat the neurological disease or disorder.

One of Theracell's technologies involves the direct implantation into the CNS of microscopic beads ("microcarriers"), the surfaces of which are coated with live cells that secrete therapeutic factors useful in the treatment of certain neurological diseases. The beads provide a matrix, or membrane-like surface, to which cells attach and grow. Theracell believes that this cell coated microcarrier ("CCM-TM-") technology can facilitate site-specific delivery of missing or deficient neurotransmitters, growth factors and replacement tissue to diseased or injured areas of the brain by increasing the survival and successful engraftment of the cells. Theracell's initial product candidate based on this technology is Spheramine-TM-, microcarriers coated with dopamine-producing human pigmented retinal epithelial ("HPRE") cells intended for the treatment of Parkinson's disease. Theracell anticipates clinical testing of Spheramine-TM- could begin in 1998.

Theracell's development efforts with respect to the CCM-TM- technology are at an early stage and there are a number of issues that must be resolved including, long-term effects of microcarrier implantation, source of HPRE cells, etc. Product research and development is being done through New York University ("NYU"), University of South Florida and contract research and manufacturing organizations. Theracell has obtained an exclusive worldwide license from NYU under United States patent applications (the "NYU License") and corresponding foreign patent applications relating to the CCM-TM- technology.

Complementing CCM-TM- is a technology based on Sertoli cells which has been licensed exclusively on a worldwide basis under patent applications from the University of South Florida (the "USF License"). These unique cells secrete a host of growth factors important to the repair and resprouting of damaged

neurons, and thus may be useful in restoring function in degenerative diseases, including Parkinson's disease, Huntington's disease, stroke, Alzheimer's disease, epilepsy and traumatic brain injuries. Additionally, they are capable of providing an immunologically privileged and nurturing environment to other types of cells of interest for transplant, and thus, analogous to CCM-TM-, may facilitate successful engraftment of such cells.

Theracell's development efforts with regard to Sertoli cell technology are at an early stage and there are a number of issues that must be resolved including source of cells, long term effects of cell implantation, etc. Product research and development is being done through the University of South Florida and contract research and manufacturing organizations. Initial product development efforts are focused towards early-stage Parkinson's disease and Huntington's disease.

Titan currently owns 99% of the outstanding stock of Theracell.

PRONEURA

ProNeura is engaged in the research and development of drug delivery technology with application in the treatment of a number of neurologic and psychiatric disorders in which conventional treatment is limited by variability of drug concentration in blood and poor patient compliance. The technology, which has been licensed from the Massachusetts Institute of Technology ("MIT"), consists of a polymeric drug delivery system that provides controlled drug release over extended periods (i.e., from three months to more than one year). The technology involves imbedding the drug of interest in a polymer. The matrix is then implanted subcutaneously to provide systemic delivery as body fluids wash over the implant and the drug is released. This results in a constant rate of release similar to intravenous administration. ProNeura believes that such long-term, linear release characteristics are highly desirable, avoiding peak and trough level dosing that poses problems for many CNS and other therapeutic agents.

The MIT technology offers significant potential benefits to patients suffering from chronic CNS disorders, including Huntington's disease, Parkinson's disease, schizophrenia and psychosis and chronic pain by providing long-term, intravenous type dosing in a single administration, in an ambulatory outpatient setting. Patients that pose compliance concerns, including those who are impaired or whose socioeconomic circumstances hinder compliance with traditional chronic drug administration could also potentially benefit from this technology. There are, however, a number of factors that will need to be addressed in the research and development phase of any product that results from this polymer matrix technology, including (i) flexibility in dosing; (ii) drug potency; (iii) potential negative effects from long-term continuous drug delivery; and (iv) feasibility of device implantation and removal. There can be no assurance that such factors will be successfully resolved.

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ProNeura is conducting preclinical evaluation of prototype products through contract research and manufacturing organizations. Titan currently owns approximately 79% of ProNeura.

TRILEX

Trilex was incorporated under the name Ascalon, Inc. in May 1996 to engage in research and development of cancer therapeutic vaccines utilizing anti-idiotypic ("anti-id") antibody technology licensed from the University of Kentucky Research Foundation. Anti-id monoclonal antibodies are not traditional antibodies, but are exact mirror images of normal antibodies at their variable regions. The anti-id therapeutics under development by Trilex are targeted at a specific epitope (site) that is only present on the targeted cancer cell and is not found on normal tissue. From a molecular biological perspective the anti-id antibody is structurally similar to the cancer epitope. When injected into a patient, the antibody acts as a trigger for the normal immune system's response of T and B lymphocytes to destroy target cancer cells. The amount required to elicit this response is relatively small at two milligrams per dose, compared with the tens or hundreds of milligrams per dose utilized in so-called "traditional" monoclonal therapy or radio imaging. Trilex believes this low dosage level is the reason for the insignificant side effects exhibited in patients.

To date, Trilex has identified three separate anti-id antibodies that are demonstrating an immune response against antigens associated with adenocarcinomas, breast cancer, small cell lung cancer and melanoma, T-cell lymphoma and leukemia. All of such antibodies have successfully entered Phase I clinical trials and pivotal clinical trials for at least two of the first three of the antibodies are scheduled to begin in 1997. The three antibodies are:

- CeaVac-TM- (3H1) antibody. The Company believes this product has potential utility in the treatment of adenocarcinomas, notably, colorectal cancer, non-small cell lung cancer, pancreatic cancer and gastric cancer. Carcinoembryonic antigen ("CEA") is produced by the largest group of cancers, adenocarcinomas. In particular, the anti-CEA antibody has

received widespread interest in the international oncology community as it is the first potential vaccine to break CEA immune tolerance. In animal models (i.e., mice), Trilex has demonstrated that the anti-id antibody can protect against the development of colorectal cancers that express the carcinoembryonic antigen. During 1997, Trilex is planning to initiate Phase III studies in patients with colorectal cancer.

- TriGem-TM- (1A7) antibody. The Company believes this product has potential utility in the treatment of cancers that express the GD2 ganglioside, including melanoma, small cell lung cancer and sarcoma.
- TriAb-TM- (11D10) antibody. The Company believes this product has potential utility in the treatment of breast, ovarian and non-small cell lung cancer.

A number of United States and foreign patent applications covering both therapeutic and diagnostic applications of the anti-id antibody technology are pending. Award of claims have been issued for TriGem-TM-. Titan currently owns 100% of Trilex.

SPONSORED RESEARCH AND LICENSE AGREEMENTS

The Company and the Operating Companies are party to several agreements with research institutions, universities and other entities for the performance of research and development activities and for the acquisition of licenses relating to such activities.

Effective December 31, 1996, pursuant to the HMR Agreement, the Company acquired an exclusive worldwide license under United States and foreign patents and patent applications relating to the use of Iloperidone for the treatment of psychiatric and psychotic disorders and analgesia. The HMR Agreement provides for the payment of an upfront license fee in cash and stock aggregating \$9,500,000, as well as substantial additional late stage milestone payments. See "Item 6: Management's Discussion and Analysis or Plan of Operations." The HMR Agreement also provides for the payment of royalties on net sales and requires the Company to satisfy certain other terms and conditions of the HMR Agreement in order to retain its rights thereunder.

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ANSAN

Certain aspects of Ansan's research and certain of the development activities to date were conducted pursuant to a two-year sponsored research agreement with Bar-Ilan Research and Development Co. Ltd. ("Bar-Ilan") which terminated in October 1994. This program involved IN VITRO and IN VIVO testing of AN 9 and AN 10, as well as the preparation and evaluation of additional derivatives of butyric acid. The research agreement granted Ansan an option to license exclusively any technology related to butyric acid conceived or reduced to practice as a result of the research program.

Ansan has acquired, pursuant to a license agreement with Bar-Ilan (the "Bar-Ilan Agreement"), an exclusive, worldwide license to an issued United States patent and certain foreign patents, and patent applications covering novel analogs of butyric acid owned by Bar-Ilan University and Kupat Hulim Health Insurance Institution. The Bar-Ilan Agreement provides for the payment by Ansan to Bar-Ilan of royalties based on sales of products and processes incorporating the licensed technology, subject to minimum annual amounts commencing in 1995, as well as a percentage of any income derived from and sublicense of the licensed technology. Ansan must also pay all costs and expenses incurred in patent prosecution and maintenance. The minimum annual royalties for 1997 are \$20,000 and increase annually to \$60,000 for 1999.

Ansan must also satisfy certain other terms and conditions set forth in the Bar-Ilan Agreement in order to retain its license rights thereunder, including the use of reasonable best efforts to bring any products developed under the Bar-Ilan Agreement to market, and to continue diligent marketing efforts for the life of the license, the timely commencement of toxicology testing on small and large animals, the development of and compliance with a detailed business plan and the timely payment of royalty fees.

In May 1996, Ansan entered into a license agreement (the "BI Agreement") with Boehringer Ingleheim GmbH ("BI") pursuant to which Ansan acquired the exclusive right in the United States and the European Union to develop an intravenous formulation of the patented drug ApafantTM. The BI Agreement provides for the payment by Ansan to BI of future milestones and royalty payments. Under certain circumstances, BI can reacquire such rights and assume development and commercialization of the drug. In such event, BI is obligated to make certain milestone and royalty payments to Ansan.

Ingenex is a party to several license agreements with the University of Illinois at Chicago ("UIC") which grant Ingenex the exclusive worldwide license under certain issued patents and patent applications, including those relating to the GSX-TM- System, methods for preventing multi drug resistance and the human MDR1 gene (collectively, the "UIC Licenses"). The exclusive nature of the licenses is subject in certain instances to certain reservations, including the use of all or part of the subject matter of the licenses for research, education and other non-commercial purposes. In addition, Ingenex's rights under the MDR1 license are subject to a non-exclusive right granted to Burroughs-Wellcome to transfect cell lines with the MDR1 gene, and to use the transfectants for research purposes. Burroughs-Wellcome does not, however, have the right to sell or transfer the transfectants or any derivatives thereof, without the written authorization of UIC.

The UIC Licenses provide for the payment of license issue fees totaling, in the aggregate, approximately \$145,000 and a royalty to UIC based on sales of products and processes incorporating the licensed technology. Each UIC License also requires the payment of certain minimum amounts during the time periods provided therein. Furthermore, Ingenex will pay to UIC (i) royalties based on sublicensing income, (ii) a percentage of revenues from research relating to the subject matter of each UIC License that is performed on a contract basis for third parties and (iii) all costs and expenses associated with patent prosecution and maintenance. Ingenex must also satisfy certain other terms and conditions of the UIC Licenses in order to retain its license rights thereunder, including the use of best efforts to bring any products developed under the UIC Licenses to market, the development of and compliance with a detailed business plan, obtaining all necessary government approvals and the timely payment of license and royalty fees. In addition, Ingenex has the right in all instances to elect to assume control of patent prosecution of the licensed technology. However, Ingenex may determine that the benefits of filing for patent protection are outweighed by costs, security or other constraints. As a result, there can be no assurances that Ingenex will obtain or seek patent protection in all jurisdictions into which it sells products made under the licenses.

Ingenex has obtained additional exclusive, worldwide licenses from UIC to foreign and domestic patent applications relating to genes and genetic elements associated with (i) sensitivity to cisplatin in human cells, (ii) neoplastic transformation and (iii) sensitivity to chemotherapeutic drugs along with the association of kinesin with

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chemotherapeutic drug sensitivity. Further development of the technologies to which the licensed patent applications relate will depend on the ability of Ingenex to enter into corporate partnering arrangements on acceptable terms. All three of these licenses are subject to certain rights of third parties for non-commercial research and educational purposes. These licenses provide for the payment of license issue fees totaling \$50,000 (\$10,000 of which has been paid through the date hereof), royalties based on sales of products and processes incorporating the licensed technology, subject to certain minimum annual amounts, and a percentage of all revenue received from any sublicense of the licensed technology. The obligations of Ingenex under these agreements are substantially similar to those contained in the UIC Licenses.

Ingenex has acquired an exclusive license from MIT (the "MIT License") under an issued patent relating to the use of MDR genes for creating and selecting drug resistant mammalian cells. The license to Ingenex is subject to prior grants of (a) an irrevocable, royalty-free, nonexclusive license granted to the United States government, (b) non-exclusive licenses granted to Eli Lilly, Inc. and Genetics Institute, Inc. for research purposes and (c) non-exclusive, commercial licenses that may be granted pursuant to options granted to Eli Lilly, Inc. and Genetics Institute, Inc. to use aspects of the licensed technology but only to make products that do not incorporate genes claimed in the patent, proteins expressed by such genes or antibodies and inhibitors to such genes. The MIT License provides for the payment of royalties based on net sales of products and processes incorporating the licensed technology, subject to certain minimum annual amounts, a percentage of sublicensing income arising from the license of such products and processes, and the issuance to MIT of shares of Ingenex's Common Stock. Under the MIT License, Ingenex must also use reasonable best efforts to bring any products developed under the MIT License to market, develop and comply with a detailed business plan and make timely payment of license and royalty fees.

In January 1995, Ingenex entered into an assignment and license back transaction pursuant to which Ingenex assigned its rights under the three primary UIC Licenses relating to the human MDR1 gene, methods for preventing multi-drug resistance and the GSX-TM- System and the MIT License (the "Assigned Licenses") to Aberlyn Capital Management Limited Partnership ("ACM") in exchange for payment of \$2,000,000 from ACM to Ingenex (the "ACM Agreement"). Under the ACM Agreement, the rights under the Assigned Licenses are sublicensed back to Ingenex by ACM in consideration for six monthly payments of \$25,000 beginning in February 1995 and 42 monthly payments of \$60,060 thereafter (collectively, the "License Payments"). The License Payments may be prepaid at any time. After receipt by ACM of all amounts due under the License Payments, Ingenex may

repurchase the Assigned Licenses from ACM for one dollar. In the event Ingenex defaults in its obligations with respect to the monthly License Payments, ACM will have the right to terminate the sublicense, in which event, Ingenex will lose all of its rights under the Assigned Licenses. Titan has guaranteed the obligations of Ingenex under the ACM Agreement.

In October 1992, Ingenex acquired an exclusive, worldwide license (the "Baylor License") under United States and foreign patent applications assigned to Baylor College of Medicine relating to a modified tumor suppressor gene, the RB gene, including its use in conferring senescence to tumors that forms the basis of RB94. The Baylor License provides for royalties based on net sales of products and processes incorporating the licensed technology, subject to certain minimum annual amounts and a percentage of sublicensing income arising from the license of such products and processes. Under the Baylor License, Ingenex must use reasonable best efforts to bring any products developed under the Baylor License to market, develop and comply with a detailed business plan, fund research pursuant to the Baylor research agreement, commence a cancer therapy research program, make timely payment of royalty fees and pay all costs and expenses incurred in patent filing, prosecution and maintenance.

Theracell

Theracell has acquired an exclusive, worldwide license under certain United States and foreign patent applications pursuant to a research and license agreement with New York University (the "NYU Agreement"). These patent applications relate to technology that enables cells of neural and paraneural origin to be transplanted into the mammalian brain by attaching such cells to a support matrix of microcarrier beads and implanting the beads into the CNS. The NYU Agreement provides for the payment of royalties based on net sales of products and processes incorporating licensed technology, as well as a percentage of any income it receives from any sublicense thereof. Theracell is also obligated to reimburse NYU for all costs and expenses incurred by NYU in filing, prosecuting and maintaining the licensed patents and patent applications.

Theracell must satisfy certain other terms and conditions of the NYU Agreement in order to retain its license rights thereunder. These include, but are not limited to, the use of best efforts to bring licensed products to

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market as soon as commercially practicable and to diligently commercialize such products thereafter, the use of best efforts to carry out the performance of all efficacy, pharmaceutical, safety, toxicological and clinical tests and to obtain all appropriate governmental approvals for the production, use and sale of the licensed products, the development of and compliance with a detailed business plan, the timely payment of license and royalty fees and Theracell's timely payment of research funds (approximately \$200,000 during 1997).

In March 1996, Theracell acquired an exclusive, worldwide license under United States and foreign patent applications pursuant to a license agreement (the "USF Agreement") with the University of South Florida and the University of South Florida Research Foundation, Inc. (collectively, "USF"). These patent applications relate to the preparation and use of Sertoli cells for the treatment of neurodegenerative disorders. The USF Agreement provides for the payment of royalties based on net sales by Theracell or any sublicensees of products and processes incorporating licensed technology. Theracell is also obligated to reimburse USF for all costs and expenses incurred by USF in filing, prosecuting and maintaining the licensed patent rights. Theracell must satisfy certain other terms and conditions of the USF Agreement in order to retain its license rights thereunder. These include the development and introduction into clinical trials of at least one product within five years of such date and an additional product every two years thereafter until commercialization of one product, the timely payment of license and royalty fees and investment in the technology of operating capital aggregating at least \$1,500,000 during the two years following the effective date.

ProNeura

The Company has acquired from MIT and assigned to ProNeura an exclusive worldwide license to certain United States and foreign patents which expire in 2007 and 2009 and patent applications relating to the polymeric implantable drug delivery system (the "MIT License"). The MIT License requires ProNeura to invest at least \$1,800,000 in operating capital toward development of products and processes covered by the MIT License over the 24 month period commencing September 1995. The MIT License provides for the payment by ProNeura of royalties based on sale of products and processes incorporating the licensed technology, as well as a percentage of income derived from sublicenses of the licensed technology.

ProNeura must also satisfy certain other terms and conditions set forth in the MIT License in order to retain its license rights thereunder, including using its reasonable best efforts to obtain the necessary regulatory approvals to conduct clinical testing of the licensed technology and to market such

products, if successfully developed, in the United States and Europe. The exclusive nature of the MIT License is also subject to the condition that ProNeura file an IND with the FDA by December 31, 1997.

TRILEX

Trilex has acquired an exclusive, worldwide license under certain United States and foreign patent applications pursuant to a license agreement with the University of Kentucky Research Foundation (the "Kentucky Agreement"). These patent applications relate to the anti-idiotypic antibodies known as 3H1, 1A7 and 11D10 and their fragments, derivatives or analogs. The Kentucky Agreement obligates Trilex to fund research at the University of Kentucky in the amount of \$350,000 per year for five years. The Kentucky Agreement provides for the payment of certain license fees totaling up to a maximum of \$370,000 as well as royalties based on net sales of licensed products by Trilex or any sublicensees. Trilex must also diligently pursue a vigorous development program with respect to the licensed technology in order to maintain its license rights under the Kentucky Agreement.

MANAGEMENT AND FINANCIAL SERVICES

The Company has historically provided a full range of management services to its Operating Companies as follows:

- Executive Management and Administrative Services such as:
 - development of business strategies and plans
 - development of strategies and plans for raising capital
 - operational planning and implementation
 - investor relations
 - Business Development Services such as:
 - seeking and negotiating technology licenses
 - seeking and negotiating corporate partnerships
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- seeking and negotiating equity investments
 - Financial Services such as:
 - preparation of budget and financial statements
 - cash flow management
 - expenditure monitoring and control
 - bookkeeping services and managing external audit relationship
 - daily banking activities
 - processing payroll
 - compliance reporting
 - accounts payable management
 - Human Resources Services such as:
 - recruiting
 - compensation consulting
 - labor law compliance and interfacing with government agencies
 - personnel documentation and benefit program administration

The services utilized by any of the Operating Companies are based upon their respective needs and stages of development. The amount billed to each Operating Company for such services is based upon an estimate of the cost of providing such services and is fixed on an annual basis. Each Operating Company also pays for any out-of-pocket expenses incurred by the Company in providing the services to the Operating Company.

PATENTS AND PROPRIETARY RIGHTS

GENERAL

The Company's success will depend, in part, on its ability, and the ability of the Operating Companies and their licensor(s), to obtain protection for their products and technologies under United States and foreign patent laws, to preserve their trade secrets, and to operate without infringing the proprietary rights of third parties. Titan and the Operating Companies have obtained rights to certain patents and patent applications and may, in the future, seek rights from third parties to additional patents and patent applications. There can be no assurance that patent applications relating to potential products or technologies, including those licensed from others, or that may be licensed in the future, will result in patents being issued, that any issued patents will afford adequate protection or not be challenged, invalidated, infringed, or circumvented, or that any rights granted thereunder will afford competitive advantages to the Company. Furthermore, there can be no assurance that others have not independently developed, or will not independently develop, similar products and/or technologies, duplicate any of the Company's products or technologies, or, if patents are issued to, or licensed by the Company, design around such patents.

There can be no assurance that the validity of any of the patents licensed to Titan or the Operating Companies would be upheld if challenged by others in litigation or that the Company's activities would not infringe patents owned by

others. The Company could incur substantial costs in defending itself and/or the Operating Companies in suits brought against them or any of their licensors, or in suits in which the Company may assert, against others, patents in which the Company has rights. Should the Company's products or technologies be found to infringe patents issued to third parties, the manufacture, use, and sale of such products could be enjoined and the Company could be required to pay substantial damages. In addition, the Company may be required to obtain licenses to patents or other proprietary rights of third parties, in connection with the development and use of their products and technologies. No assurance can be given that any licenses required under any such patents or proprietary rights would be made available on acceptable terms, if at all.

The Company also relies on trade secrets and proprietary know-how, which it seeks to protect, in part, by confidentiality agreements with employees, consultants, advisors, and others. There can be no assurance that such employees, consultants, advisors, or others, will maintain the confidentiality of such trade secrets or proprietary information, or that the trade secrets or proprietary know-how of Titan and the Operating Companies will not otherwise become known or be independently developed by competitors in such a manner that the Company will have no practical recourse.

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ANSAN

The Company is aware of the existence of prior art references which may affect the validity of certain claims in the Nudelman patent licensed by Ansan, which claims broadly cover AN 10, among other compounds. Reexamination of this patent by the U.S. Patent and Trademark Office ("PTO"), in light of these references, may be necessary to obtain valid claims which are both free of the prior art and which specifically cover AN 10. In the course of preparing for reexamination or otherwise, additional prior art may be uncovered which might affect the validity of such proposed narrow claims. Such art would need to be brought to the attention of the PTO in connection with any reexamination. Moreover, there can be no assurance that the PTO will grant a request for reexamination, or if granted, that such reexamination will result in the issuance of the desired claims. In any event, given that the already-uncovered prior art references relate to compounds but not to methods of treatment, the existence of such references would not, as a matter of U.S. patent law, be expected to affect any claims directed to the use of AN 10 to treat fetal hemoglobinopathies as covered in U.S. Patent No. 5,569,675 issued in October 1996, which the Company has licensed from Bar-Ilan.

The Company also is aware of certain issued United States patents which appear to cover the administration of butyric acid, during gestation or infancy, to ameliorate BETA-globin disorders, including sickle cell anemia and BETA-thalassemia, by increasing the level of fetal hemoglobin. To the extent that AN 10 converts to butyric acid and in the event Ansan's commercial activities include administration of AN 10 during gestation and/or infancy, such activities could give rise to issues of infringement of such patents.

INGENEX

The Company is aware of a U.S. patent issued to a third party (the "Riordan patent") relating to a multidrug resistance. The Riordan patent describes the isolation of two DNA molecules that code for fractional portions of the hamster protein associated with multidrug resistance (the "hamster MDR-1 gene"). A patent licensed by Ingenex (the "Roninson patent") describes and claims the entire human MDR-1 gene, which is the DNA that codes for the entire protein associated with multidrug resistance in human cells. Nonetheless, the Riordan patent claims a DNA molecule coding for a protein, or a fragment of a protein, that is associated with multidrug resistance in living cells, including human cells. The Riordan patent has an earlier effective filing date than the Roninson patent, and there can be no assurance that the Riordan patent will not be asserted against Ingenex. Thus, it may be necessary for Ingenex to obtain a license under the Riordan patent to pursue commercialization of its proposed gene therapy products utilizing the MDR-1 gene. There can be no assurance that such a license, if required, will be made available to Ingenex, if at all, on terms acceptable to Ingenex. Failure to obtain such a license, if required, could have a material adverse effect on Ingenex.

The Company also is aware of a U.S. patent issued to a third party (the "Anderson patent") relating to EX VIVO gene therapy. The Anderson patent is reported to be exclusively licensed to Genetics Therapy, Inc. The Company believes that the Anderson patent could be asserted to cover gene therapeutics developed by Ingenex, to the extent that the introduction of a gene into a subject's cells is performed EX VIVO. In January 1996, it was reported that an interference proceeding had been instituted in the U.S. Patent and Trademark Office between the issued Anderson patent and two pending patent applications. Depending on the outcome of the interference, it may or may not be necessary for Ingenex to obtain a license from a party to the interference (or its licensee) to pursue commercialization of its proposed gene therapy products utilizing EX VIVO gene therapy. There can be no assurance that such a license, if required, will be made available to Ingenex, if at all, on terms acceptable to Ingenex.

Failure to obtain such a license, if required, could have a material adverse effect on Ingenex.

Ingenex has received notice that three companies, Chiron Corporation, Sandoz AG and Introgen NV, are opposing the grant of a European patent corresponding to the Roninson patent, which Ingenex has licensed from UIC, with claims directed to the human MDR-1 gene and gene fragments. While Ingenex, through its licensor, intends to vigorously respond to the oppositions, no assurance can be given as to the scope of the claims, if any, which the European Patent Office ultimately will find patentable.

The Company is aware of the existence of a prior art reference (European Patent Application 0 259 031) ("EP 0 259 031"), which discloses a DNA sequence corresponding to the sequence of the RB94 DNA molecule that is claimed in an issued U.S. patent licensed by Ingenex from Baylor (the "Baylor patent"). The Baylor patent also contains claims directed to specific expression vectors containing these DNA molecules. Although a patent is presumed valid, there can be no assurance that the claims of the Baylor patent, if challenged, will not be found invalid. In any event, given that EP 0 259 031 relates to DNA molecules but not to methods of gene therapy, the existence of this reference alone would not, as a matter of U.S. law, be expected to affect the patentability of claims

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directed to the use of the RB94 DNA molecule in gene therapy for certain cancers, which gene therapy claims presently are pending in a related patent application licensed by Ingenex from Baylor.

THE RACELL

The PTO has issued a notice of allowance on the core subject material of a patent application underlying the NYU License with Theracell and a U.S. Patent is expected to be issued shortly. An Australian patent on the core material of a patent application underlying the NYU License with Theracell was granted in May 1996. Prosecution of various divisional and continuation applications and their foreign counterparts continues satisfactorily; there can be no guarantee, however, that additional patents will be granted. The Company is also aware of an issued United States patent relating to a method for treating defective or diseased cells in the mammalian CNS by grafting genetically modified donor cells in the CNS (i.e., the brain), which cells can produce molecules (i.e., dopamine) in a sufficient amount to ameliorate the defect or disease. To the extent Theracell's commercial activities include the grafting of genetically modified donor cells, such activities could give rise to issues of infringement of this patent.

The Company is aware of patent applications relating to use of Sertoli cells in transplantation filed by Research Corporation Technologies (RCT). These applications may affect validity of certain claims in the USF patent applications. The Company and USF believe they may have certain rights in the RCT patents. The exercise of these rights will depend on an inventorship determination, the outcome of which is uncertain at this time.

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 targeted by Titan and the Operating Companies. Many of the competitors of the Company have substantially greater financial and other resources, larger research and development staffs and more experience in the regulatory approval process. Moreover, potential competitors have or may have patent or other rights that conflict with patents covering technologies of Titan and the Operating Companies. In certain circumstances, it may be difficult or impossible for Titan or certain Operating Companies to obtain appropriate licenses, which would thereby hamper or prevent the commercialization of their proposed products. The failure to obtain such licenses could have a material adverse effect on the business, results of operations and financial condition of Titan and such Operating Companies, which in turn may have an adverse effect on the business, results of operations and financial condition of the Company.

With regard to Ansan, the Company is aware that Alpha Therapeutics Corporation ("Alpha") is currently developing, alone and/or with a collaborative partner, through technology covered by certain patents held by Perrine, a butyrate-related treatment for blood disorders that would directly compete with Ansan's Novaheme-TM- product. There can be no assurance that Novaheme-TM- will prove to be more efficacious in the treatment of blood disorders than the drug under development by Alpha or that, in the event that Novaheme-TM- is approved for commercialization, that Novaheme-TM- will gain wider market acceptance than the Alpha product. In addition, Novaheme-TM- will face competition from hydroxyurea, a therapeutic agent currently marketed for other indications and which has just completed clinical testing for the treatment of blood disorders. Although Ansan believes that hydroxyurea will only have limited utility in the treatment of hemoglobinopathies since initial studies have shown it to be toxic

and, in certain laboratory models, less effective than Novaheme-TM- at increasing the ex vivo expression of HbF levels, there can be no assurance that Novaheme-TM- will ultimately prove to be more efficacious at treating blood disorders than hydroxyurea or that, in the event that Novaheme-TM- is approved for commercialization, that it will gain wider market acceptance than hydroxyurea.

With regard to Ingenex, the Company is aware of several development stage and established enterprises that are exploring the field of human gene therapy or are actively engaged in research and development in the area of multidrug resistance, including Genetix Pharmaceuticals, Inc. ("Genetix") and two research organizations receiving funding from the National Institutes of Health ("NIH"). There can be no assurance that Ingenex's MDRx1-TM- product will prove to be more efficacious as a gene therapy than any gene therapy under development by Genetix or either of the two research organizations. The Company is aware of other commercial entities that have produced gene therapy products used in human trials. Further, it is expected that competition in this field will intensify.

With regard to Theracell, the Company is aware of several new drugs for Parkinson's disease that are in preclinical and clinical development. The Company is aware that Amgen is pursuing clinical trials in Parkinson's

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patients with GDNF and is collaborating with Medtronic, Inc. in its delivery to the CNS. In addition, the Company is aware of several well-funded public and private companies that are actively pursuing alternative cell transplant technologies, including Somatix Therapy Corporation ("Somatix"), CytoTherapeutics Inc. and Diacrin, Inc. The technology under development by Diacrin, Inc. involves using antibodies to eliminate the need for immunosuppression when transplanting fetal pig cells into Parkinson's patients, and would directly compete with Spheramine-TM-. There can be no assurance that any of the products under development by Somatix, CytoTherapeutics Inc. or Diacrin, Inc., or which might be developed by other entities, will not prove to be more efficacious in the treatment of Parkinson's disease than the product under development by Theracell.

With regard to ProNeura, the Company is aware of an implantable therapeutic system being developed by ALZA Corporation. Additionally, companies such as Medtronic, Inc. are developing implantable pumps that could be used to infuse drugs into the CNS.

With regard to Trilex, the Company is aware of several companies involved in the development of cancer therapeutics that target the same cancers as the products under development by Trilex. Such companies include Progenics, Biomira, AltaRex, Genentech, ImClone and Glaxo-Wellcome.

With respect to the product candidate Iloperidone, a similar class of products are sold by Janssen Pharmaceuticals, Inc. and Eli Lilly, Inc., with other companies continuing to develop competing compounds.

In addition to the foregoing, colleges, universities, governmental agencies and other public and private research organizations are likely to continue to conduct research and are becoming more active in seeking patent protection and licensing arrangements to collect royalties for use of technology that they have developed, some of which may be directly competitive with the technologies being developed by the Company. These institutions also compete with the Company in recruiting highly qualified scientific personnel. The Company expects therapeutic developments in the areas of oncology and hematology to occur at a rapid rate and competition to intensify as advances in this field are made. Accordingly, the Company will be required to continue to devote substantial resources and efforts to research and development activities.

GOVERNMENT REGULATION

The Company's research and development activities are, and the production and marketing of its products will be, subject to regulation for safety and efficacy by numerous governmental authorities in the United States and other countries. In the United States, pharmaceutical products are subject to rigorous FDA review. The Federal, Food, Drug, and Cosmetic Act and other federal statutes and regulations govern or influence the research, testing, manufacture, safety, labeling, storage, recordkeeping, approval, advertising and promotion of such products. Noncompliance with applicable requirements can result in fines, recall or seizure of products, refusal to permit products to be imported into or exported out of the United States, refusal of the government to approve product approval applications or to allow a company to enter into government supply contracts, withdrawal of previously approved applications and criminal prosecution.

In order to obtain FDA approval of a new drug, a company generally must submit proof of purity, potency, safety and efficacy, among others. In most cases, such proof entails extensive clinical and preclinical laboratory tests. The testing and preparation of necessary applications is expensive and may take several years to complete. There is no assurance that the FDA will act favorably or quickly in reviewing submitted applications, and significant

difficulties or costs may be encountered by Titan and the Operating Companies in their efforts to obtain FDA approvals, which difficulties or costs could delay or preclude them from marketing any products they may develop. The processing of those applications by the FDA is a lengthy process and may also take several years. Any future failure to obtain or delay in obtaining such approvals could adversely affect the ability of Titan and the Operating Companies to market their proposed products. Moreover, even if regulatory approval is granted, such approval may include significant limitations on indicated uses for which any such products could be marketed. Further, a marketed drug and its manufacturer are subject to continued review, and later discovery of previously unknown problems may result in restrictions on such product or manufacturer, including withdrawal of the product from the market. In addition, new government regulations may be established that could delay or prevent regulatory approval of the products under development.

Among the conditions for clinical studies and IND approval is the requirement that the prospective manufacturer's quality control and manufacturing procedures conform to good manufacturing practices ("GMP"), which must be followed at all times. In complying with standards set forth in these regulations, manufacturers must

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continue to expend time, moneys and effort in the area of production and quality control to ensure full technical compliance.

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 the Company will have the exclusive right to exploit such technologies.

The procedure for obtaining FDA approval to market a new drug involves several steps. Initially, the manufacturer must conduct preclinical 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 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. Once the IND is approved (or if FDA fails to act 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 in patients, primarily for safety in one or more doses. During Phase II, in addition to safety, the 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 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 preclinical and clinical testing on new drugs are submitted to the FDA in the form of a new drug application ("NDA") for new drugs. 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.

Under guidelines established by NIH, deliberate transfers of recombinant DNA into human subjects conducted within NIH laboratories or with NIH funds must be approved by the NIH Director. The Director may approve a procedure if it is determined that no significant risk to health or the environment is presented. The NIH has established the Recombinant DNA Advisory Committee (the "RAC") to advise the NIH Director concerning approval of NIH-supported research involving the use of recombinant DNA. A proposal will be considered by the RAC only after the protocol has been approved by the investigator's local Institutional Review Board and other committees. Although the jurisdiction of the NIH applies only when NIH-funded research or facilities are involved in any aspect of the protocol, the RAC encourages all gene transfer protocols to be submitted for its review. The Company intends to comply with RAC and NIH guidelines even when it may not be subject to them.

There can be no assurance that any required FDA or other governmental approval will be granted, or if granted, will not be withdrawn. Governmental regulation may prevent or substantially delay the marketing of the Operating Companies' proposed products, cause them to undertake costly procedures and furnish a competitive advantage to more substantially capitalized companies with which they expect to compete. In addition, the extent of potentially adverse government regulations which might arise from future administrative action or

legislation cannot be predicted.

The Company believes it is in compliance with all material applicable regulatory requirements.

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 those countries. 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.

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EMPLOYEES

The Company currently has ten full-time employees. Ingenex currently has 16 employees, Theracell currently has four employees and Trilex currently has nine employees. ProNeura currently has no full-time employees. The Company's future success depends in significant part upon the continued service of its key scientific personnel and executive officers, as well as those of the Operating Companies and all of such entities' continuing ability to attract and retain highly qualified scientific and managerial personnel. Competition for such personnel is intense and there can be no assurance that key employees can be retained or that other highly qualified technical and managerial personnel can be retained in the future.

None of the Company's employees is represented by a labor union. The Company has not experienced any work stoppages and considers its relations with its employees to be good.

ITEM 2. DESCRIPTION OF PROPERTY.

The Company has a four year lease, expiring in April 2000, for approximately 3,800 square feet of office space in South San Francisco, California. The monthly rental payment is \$6,185. Ingenex has a three year lease, expiring in March 1999, for approximately 22,700 square feet of space in Menlo Park, California that includes laboratories, offices and warehouse space. The base rent is \$27,200 per month. Theracell has a three year lease, expiring in August 1999, for approximately 1,900 square feet of space in Somerville, New Jersey, at a monthly rental payment of \$3,362. Trilex has a five year lease, expiring in August 2000, for approximately 3,600 square feet in Scottsdale, Arizona at a monthly rental payment of \$6,788.

ITEM 3. LEGAL PROCEEDINGS.

The Company is not involved in any material legal proceedings.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY-HOLDERS.

On October 18, 1996, the Company held its Annual Meeting of shareholders. Matters voted upon at the meeting and the number of affirmative votes, negative votes, withheld votes and abstentions cast with respect to each such matter were as follows:

<TABLE>
<CAPTION>

	Affirmative Votes	Withheld Votes	
<S>	<C>	<C>	
1. Election of the Company's Directors:			
Louis R. Bucalo, M.D.	6,534,243	6,770	
Ernst-Gunter Afting, M.D., Ph.D.	6,534,243	6,770	
Michael K. Hsu	6,534,243	6,770	
Hubert Huckel, M.D.	6,531,843	9,170	
Marvin E. Jaffe, M.D.	6,534,243	6,770	
Peter M. Kash	6,534,243	6,770	
Lindsay A. Rosenwald, M.D.	6,534,243	6,770	
Konrad M. Weis, Ph.D.	6,531,843	9,170	
Kenneth J. Widder, M.D.	6,534,243	6,770	
<CAPTION>			
	Affirmative Votes	Withheld Votes	Abstentions
<S>	<C>	<C>	<C>
2. Approval of an amendment to the Company's 1995 Stock Option Plan:	5,861,928	529,582	81,498

3. Approval and ratification of the appointment of Ernst & Young LLP as independent auditors:	6,113,450	296,612	130,951
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PART II

ITEM 5. MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS.

(a) The Company's Units, Common Stock and Warrants trade on The Nasdaq SmallCap Market tier of The Nasdaq Stock Market under the symbols TTNP, TTNP and TTNPW, respectively, since January 18, 1996. The following sets forth, for the periods indicated, the high and low sales prices of the Company's Common Stock as reported by The Nasdaq Stock Market:

	HIGH	LOW
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1996		

First Quarter (from January 18)	\$ 8.375	\$ 3.00
Second Quarter	\$13.00	\$ 7.50
Third Quarter	\$12.25	\$10.0625
Fourth Quarter	\$12.00	\$ 8.25

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First Quarter (through March 25). \$ 9.25 \$ 2.625

(b) The number of holders of record of the Company's Common Stock as of March 26, 1997 is 456.

(c) The Company has never paid a cash dividend on its Common Stock and does not anticipate the payment of cash dividends to holders of Common Stock in the foreseeable future.

ITEM 6. MANAGEMENT'S DISCUSSION AND ANALYSIS OR PLAN OF OPERATION.

The following discussion contains certain forward-looking statements, within the meaning of the "safe harbor" provisions of the Private Securities Reform Act of 1995, the attainment of which involves various risks and uncertainties. Forward-looking statements may be identified by the use of forward-looking terminology such as "may," "will," "expect," "believe," "estimate," "anticipate," "continue," or similar terms, variations of those terms or the negative of those terms. The Company's actual results may differ materially from those described in these forward-looking statements due to, among other factors, the results of ongoing research and development activities and preclinical testing, the results of clinical trials and the availability of additional financing through corporate partnering arrangements or otherwise.

RESULTS OF OPERATIONS

Since its inception, the Company's efforts have been principally devoted to acquiring licenses and technologies, research and development, securing patent protection and raising capital. The Company has had no significant revenue and has incurred an accumulated deficit through December 31, 1996 of \$44,100,000. These losses have resulted from expenditures for research and development and general and administrative activities including legal and professional activities, and are expected to continue for the foreseeable future. Through December 31, 1996, research and development expenses totaled \$28,266,000, and general and administrative expenses totaled \$11,828,000. Approximately \$6,553,000 of such expenses were incurred in connection with the activities of a subsidiary, Geneic Sciences, Inc. ("Geneic"), which ceased operations in 1995.

Total revenues for the year ended December 31, 1996 ("1996") were \$259,000 and \$140,000 for the year ended December 31, 1995 ("1995") from National Institutes of Health grants.

Research and development expenses for 1996 were \$5,567,000, as compared to \$5,888,000 for 1995, a decrease of \$321,000, or 5%. The decrease reflects the deconsolidation of Ansan effective August 1995, the cessation of operations by Geneic in September 1995 and the completion of certain sponsored research for Ingenex in 1995, offset by the addition of ProNeura in late 1995 and Trilex in May 1996.

General and administrative expenses for 1996 were \$5,264,000, as compared to \$3,658,000 for 1995, an increase of \$1,606,000, or 44%. The increase includes \$805,000 reflecting the addition of Trilex in May 1996, as well as \$688,000 of expenses incurred by Ingenex in conjunction with a financing that was terminated.

As a result of the foregoing expenses, the Company incurred an operating

loss of \$12,856,000 during 1996 compared with \$11,693,000 during 1995. The Company expects to continue to incur substantial research and

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development costs in the future as a result of funding ongoing (i) research and development programs for itself and the Operating Companies, (ii) manufacturing of products for use in clinical trials, (iii) patent and regulatory related expenses, and (iv) preclinical and clinical testing. The Company also expects that general and administrative costs necessary to support such research and development activities will increase. The Company will also seek to identify new technologies and/or product candidates for possible in-licensing or acquisition. Accordingly, the Company expects to incur increasing operating losses for the foreseeable future. There can be no assurance that the Company will ever achieve profitable operations.

Other income includes interest income of \$716,000 during 1996 as compared to \$68,000 during 1995. This increase was a result of a substantial increase in the amount of cash and short-term investments subsequent to the Company's IPO in January 1996 and a private placement completed in August 1996 (the "Private Placement"). Interest expense was \$2,011,000 during 1996 as compared to \$1,899,000 for 1995. Approximately \$1,408,000 of the 1996 expense reflects a non-recurring charge due to the repayment in January 1996 of notes issued in a bridge financing ("Bridge Notes"). This non-recurring charge represents the unamortized portion of the \$1,800,000 debt discount and \$458,000 of debt issuance costs relating to the Bridge Notes.

Other income for 1996 and 1995 also includes \$999,000 and \$457,000, respectively, of losses representing the Company's share of Ansan's losses.

Effective December 31, 1996, the Company entered into an exclusive license agreement for the commercial rights to the product Iloperidone with HMR. Under the agreement, the Company agreed to pay HMR an upfront license fee of \$9,500,000 payable in cash and stock. See "Liquidity and Capital Resources" below.

Upon completion of the IPO, the Company's previously outstanding shares of preferred stock were converted automatically into shares of Common Stock at adjusted conversion prices per common share less than the public offering price per common share. The deemed benefit to the preferred stockholders approximated \$5,400,000 which deemed benefit was recorded by offsetting charges and credits to additional paid-in capital at the time of conversion. There was no effect on net loss or pro forma net loss per share from the mandatory conversion. However, the amount increased the loss allocable to common stock in the calculation of net loss per share in the period of the conversion.

The Company's business is subject to significant risks including, but not limited to, the success of its research and development efforts, obtaining and enforcing patents important to the Company's business, competition from other products and lengthy as well as expensive regulatory approval process. There can be no assurance that Titan or any of the Operating Companies will have the resources necessary to conduct the several phases of clinical testing in human subjects necessary to complete development and to commercialize any products. The Company's strategy will continue to be to seek public or private financing for the Operating Companies through the sale of securities, corporate partnering arrangements or the sale of product or technology rights at such time as their stage of development and working capital requirements permit such outside financing in order to reduce their financial dependence on Titan and enable the Company to continue to expand its product portfolio through acquisitions. There can be no assurance that financing from such sources or others will be available to any of the Operating Companies. Additional expenses, delays, and losses of opportunity that may arise out of these and other risks could have a material adverse impact on the Company's financial condition and results of operations.

LIQUIDITY AND CAPITAL RESOURCES

In January 1996, the Company completed the IPO which resulted in net proceeds to the Company of \$8,622,000 after payment of underwriting discounts, a non-accountable expense allowance to the underwriter and other expenses of the offering and the repayment of the Bridge Notes and the Ingenex Notes, details of which are provided below. In February 1996, the underwriter of the Company's IPO exercised its overallotment option and purchased an additional 480,000 units, resulting in net proceeds to the Company, after discounts and commissions to the underwriter, of \$2,160,000.

On July 31 and August 2, 1996, the Company completed the Private Placement which resulted in net proceeds to the Company of approximately \$13,740,000 after payment of placement agent fees and other expenses of the Private Placement.

Titan is party to a master capital equipment lease with respect to which the Operating Companies have entered into a sublease and assignment with Titan. At December 31, 1996, the amount outstanding under the equipment lease was \$747,138 with monthly payments of \$30,459. Titan has also guaranteed the

obligations of Ingenex under an assignment and sublicense agreement pursuant to which Ingenex received \$2,000,000 in financing

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in January 1995. Such agreement currently provides for monthly payments of \$60,060 through January 1999. At December 31, 1996, the amount outstanding under the agreement was \$1,289,313.

Titan and the Operating Companies 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. The aggregate commitments the Company has under these agreements, including minimum lease payments, for the next 12 months is approximately \$2,356,000. Certain of the licenses provide for the payment of royalties by the Company on future product sales, if any. In addition, in order to maintain license and other rights during product development, the Company must comply with various conditions including the payment of patent related costs and obtaining additional equity investments by specified dates.

Effective December 31, 1996, Titan entered into the HMR Agreement pursuant to which the Company agreed to pay HMR an upfront license fee of \$9,500,000, payable as follows: (i) \$2,000,000 in cash on January 20, 1997; (ii) the issuance \$5,500,000 of common stock (594,595 shares) on January 20, 1997; (iii) and \$2,000,000 in cash on July 18, 1997. During the period from September 1997 through January 1999, the Company shall be obligated to pay to HMR the difference between \$5.5 million and the net proceeds, if any, received by HMR upon sale of the above mentioned common stock. The HMR Agreement also provides for substantial future late stage milestone payments to HMR, as well as royalty payments on net sales, if any. The Company is seeking financing through the sale of equity securities and/or corporate partnering arrangements to fund the further development of Iloperidone. In the event the Company is unable to obtain the substantial additional funds necessary to continue development of Iloperidone, it may lose its rights under the HMR Agreement.

Titan and the Operating Companies have not elected to file a consolidated federal tax return. At December 31, 1996, the Company had consolidated net operating loss carryforwards for Federal income tax purposes of \$33,300,000, of which approximately \$29,900,000 is attributable to the Operating Companies (excluding Ansan). The net operating loss and credit carryforwards expire from 2008 through 2011. Utilization of net operating loss carryforwards may be subject to a substantial annual limitation due to ownership change provisions of the Internal Revenue Code of 1986.

In March 1997, Titan and Ansan entered into an agreement for financing pursuant to which Titan advanced Ansan \$1,000,000 in return for a debenture (the "Debenture") which is convertible at any time prior to June 21, 1997 into 333,333 shares of Ansan common stock. The Debenture bears interest at prime plus 2% and is due in March 1998. In connection with the issuance of the Debenture, Ansan granted Titan an option (the "First Option") to acquire an additional 333,333 shares of Ansan common stock for an aggregate purchase price of \$1,000,000. The First Option expires on June 21, 1997.

In the event the Debenture is converted to equity, Ansan will grant to Titan two additional options (respectively, the "Second Option" and the "Third Option"). The Second Option will be exercisable for two years from the date of grant to purchase up to 1,630,000 shares of Ansan common stock at an exercise price of \$3.75 per share. The Third Option will be exercisable through August 8, 2000 to purchase up to 500,000 additional shares at an exercise price of \$6.50 per share. Titan will be obligated to exercise the Second Option for the purchase of specified numbers of shares in the event Titan's outstanding Class A Warrants are exercised, provided Ansan has not completed public or private equity financings resulting in specified gross proceeds prior to the date such a purchase obligation arises.

The Company expects to continue to incur substantial additional operating losses from costs related to continuation and expansion of research and development, clinical trials, and increased administrative and fund raising activities over at least the next several years. While the Company believes that the proceeds of the IPO and the Private Placement will be sufficient to sustain its planned operations through approximately the end of 1997 (assuming alternative financing is obtained to fund Iloperidone), the Company will be required to seek additional financing to continue its activities beyond that period. However, the Company's capital requirements may change depending on numerous factors including, but not limited to, the progress of the Company's research and development programs, the results of clinical studies, the timing of regulatory approvals, technological advances, determinations as to the commercial potential of the Company's products, and the status of competitive products. In addition, expenditures will be dependent on the establishment of collaborative relationships with other companies, the availability of financing, and other factors. In any event, the Company anticipates that it will require substantial additional financing in the future. There can be no assurance as to the availability or terms of any required

additional financing, when and if needed. In the event that the Company fails to raise any funds it requires, it may be necessary for the Company to outlicense rights it would prefer to retain or significantly curtail its activities or cease operations.

ITEM 7. FINANCIAL STATEMENTS.

See Index to Consolidated Financial Statements on page F-1.

ITEM 8. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

Not Applicable.

PART III

ITEM 9. DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS; COMPLIANCE WITH SECTION 16(A) OF THE EXCHANGE ACT.

The following sets forth the names, ages and positions of the executive officers and directors of the Company.

<TABLE>

<CAPTION>

Name	Age	Position
----	---	-----
<S>	<C>	<C>
Louis R. Bucalo, M.D. (1)	38	President, Chief Executive Officer and Director
Sunil Bhonsle	46	Executive Vice President and Chief Operating Officer
Richard C. Allen, Ph.D.	52	Executive Vice President
Robert E. Farrell	46	Executive Vice President and Chief Financial Officer
Michael K. Hsu (2)	46	Director
Hubert Huckel, M.D. (3)	64	Director
Marvin Jaffe, M.D. (2)	60	Director
Lindsay A. Rosenwald, M.D. (1) (3)	40	Director
Konrad M. Weis, Ph.D. (1)	67	Director
Kenneth J. Widder, M.D. (1) (3)	42	Director
Ernst-Gunter Afting, M.D., Ph.D.	53	Director

</TABLE>

- (1) Member of Executive Committee
 (2) Member of Audit Committee
 (3) Member of Compensation Committee

LOUIS R. BUCALO, M.D., is a co-founder of the Company and of each of the Operating Companies and has served as the Company's President and Chief Executive Officer since January 1993. Dr. Bucalo has served as a director of the Company since March 1993. Dr. Bucalo also serves as Chairman of the Board of each of the Operating Companies, except Theracell, and as Chief Executive Officer of ProNeura. From July 1990 to April 1992, Dr. Bucalo was Associate Director of Clinical Research at Genentech, Inc., a biotechnology company. Dr. Bucalo holds an M.D. from Stanford University and a B.A. in biochemistry from Harvard University.

SUNIL BHONSLE joined the Company as Executive Vice President and Chief Operating Officer in September 1995. 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.

RICHARD C. ALLEN, PH.D., joined the Company in August 1995. He also currently serves as President and Chief Executive Officer of Theracell, which he joined in January 1995 and President and Chief Operating Officer of ProNeura. From 1974 until December 1994, Dr. Allen was employed by Hoechst-Roussel Pharmaceuticals, Inc. in various capacities serving last as Vice President and General Manager of the Neuroscience Strategic Business Unit from June 1991 to December 1994. Dr. Allen holds a Ph.D. in medicinal chemistry and a B.S. in pharmacy from the Medical College of Virginia.

ROBERT E. FARRELL joined the Company as Executive Vice President and Chief Financial Officer in September 1996. Mr. Farrell was employed by Fresenius USA, Inc. from 1991 until August 1996 where he served in various capacities, including Vice President Administration, Chief Financial Officer and General Counsel. His last position was Corporate Group Vice President.

MICHAEL K. HSU has served as a director of the Company since March 1993. He currently serves as Director of Corporate Finance of National Securities

Corporation. Mr. Hsu has been the United States biotechnology venture capital representative for the government of Taiwan, Republic of China for the past 10 years. From November 1994 through October 1995, he served as Director - Corporate Finance of Coleman and Company Securities. Since March 1989, Mr. Hsu has served as President of APS Bioventures Co., which, until November 1994, was an investment banking division of RAS Securities Corp. Mr. Hsu previously held various executive

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positions with Steinberg and Lyman Health Care Company, Ventana Venture Growth Fund, Asian Pacific Venture Group (Thailand) and D. Blech Company.

HUBERT HUCKEL., M.D. has served as a director of the Company since October 1995. From 1964 until his retirement in December 1992, Dr. Huckel served in various positions with The Hoechst Group. At the time of his retirement, he 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 Royce Laboratories, Inc. and Sano Corporation.

MARVIN JAFFE, M.D. has served as a director of the Company since October 1995. From 1988 until April 1994, Dr. Jaffe served as President of R.W. Johnson Pharmaceutical Research Institute where he was responsible for the research and development activities in support of a number of Johnson & Johnson companies, including ORTHO-McNeil Pharmaceuticals, ORTHO Biotech and CILAG. From 1970 until 1988, he was Senior Vice President of Merck Research Laboratories. He currently serves on the Board of Directors of Chiroscience, plc and Immunomedics, Inc.

LINDSAY A. ROSENWALD, M.D., is a co-founder of the Company and has served as a director of the Company since March 1993. Dr. Rosenwald co-founded Interneuron Pharmaceuticals, Inc. and has served as its Chairman since February 1989. Dr. Rosenwald has been the Chairman and President of The Castle Group, Ltd., a New York medical venture capital firm ("Castle"), since October 1991, and the Chairman and President of Paramount Capital, Inc., an investment banking firm, since February 1992. In June 1994, Dr. Rosenwald founded Aries Financial Services, Inc., a money management firm specializing in the health sciences industry. From 1987 to September 1991, Dr. Rosenwald was a Managing Director, Corporate Finance at D.H. Blair & Co., Inc. Dr. Rosenwald also is a director of the following publicly-traded pharmaceutical biotechnology companies: Ansan Pharmaceuticals, Inc., Avigen, Inc., Atlantic Pharmaceuticals, Inc., BioCryst Pharmaceuticals, Inc., Neose Technologies, Inc., Sparta Pharmaceuticals, Inc., VimRx Pharmaceuticals, Inc. and Xenometrix, Inc., and is a director of a number of privately-held companies founded by Castle in the biotechnology or pharmaceutical fields.

KONRAD M. WEIS, PH.D., has served as a director of the Company since March 1993. Dr. Weis is Honorary Chairman, and former President and Chief Executive Officer of Bayer Corporation. Dr. Weis serves as a director of PNC Equity Management Company, Michael Baker Company and Dravo Company.

KENNETH J. WIDDER, M.D. has served as a director of the Company since March 1993. Dr. Widder is Chairman and Chief Executive Officer of Molecular Biosystems, Inc. Dr. Widder serves on the Board of Directors of Wilshire Technologies, Inc. and Digivision.

ERNST-GUNTER AFTING, M.D., PH.D., has served as a director of the Company since May 1996. Dr. Afting has served as the President of the GSF-National Center for Environment and Health, a government research center in Germany since 1995. From 1984 until 1995, he was employed in various capacities by the Hoechst Group, serving as Divisional Head of the Pharmaceuticals Division of the Hoechst Group from 1991 to 1993 and as President and Chief Executive Officer of Roussel Uclaf (a majority stockholder of Hoechst AG) in Paris from 1993 until 1995.

Directors serve until the next 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 "Management - Employment Agreements."

DIRECTOR COMPENSATION

Non-employee directors receive \$2,000 for each Board and committee meeting attended and are reimbursed for their expenses in attending such meetings. Directors are not precluded from serving the Company in any other capacity and receiving compensation therefor. In addition, directors are entitled to receive options ("Director Options") pursuant to the Company's 1995 Stock Option Plan. Director Options are exercisable in four equal annual installments commencing six months from the date of grant and expire the earlier of 10 years after the date of grant or 90 days after the termination of the director's service on the Board of Directors. In January 1996, each of the Company's directors other than Dr. Afting received Director Options to purchase 10,000 shares of Common Stock at an exercise price of \$5.00 per share. Dr. Afting received Director Options to purchase 10,000 shares of Common Stock at an exercise price of \$8.50 per

share when he joined the Board of Directors in May 1996. See "Management - Stock Option Plans."

BOARD COMMITTEES AND DESIGNATED DIRECTORS

The Board of Directors has an Executive Committee, a Compensation Committee and an Audit Committee. The Executive Committee exercises all the power and authority of the Board of Directors in the management of the Company between Board meetings, to the extent permitted by law. The Compensation Committee makes recommendations to the Board concerning salaries and incentive compensation for officers and employees of the Company and may administer the Company's 1995 Stock Option Plan. See "Management - Stock Option Plans." The Audit Committee reviews the results and scope of the audit and other accounting related matters.

The Company has agreed, if requested by D. H. Blair Investment Banking Corp. ("Blair"), to nominate a designee of Blair to the Company's Board of Directors for a period of five years ending January 18, 2001.

COMPLIANCE WITH SECTION 16(a) OF THE EXCHANGE ACT

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires the Company's executive officers, directors and persons who beneficially own more than 10% of a registered class of the Company's equity securities to file with the Securities and Exchange Commission (the "SEC") initial reports of ownership and reports of changes in ownership of common stock and other equity securities of the Company. Such executive officers, directors, and greater than 10% beneficial owners are required by SEC regulation to furnish the Company with copies of all Section 16(a) forms filed by such reporting persons.

Based solely on the Company's review of such forms furnished to the Company and written representations from certain reporting persons, the Company believes that all filing requirements applicable to the Company's executive officers, directors and greater than 10% beneficial owners were complied with.

ITEM 10. EXECUTIVE COMPENSATION.

The following summary compensation table sets forth the aggregate compensation paid or accrued by the Company to the Chief Executive Officer and to executive officers whose annual compensation exceeded \$100,000 for the fiscal year ended December 31, 1996 (collectively, the "named executive officers") for services during the fiscal years ended December 31, 1996, 1995 and 1994:

SUMMARY COMPENSATION TABLE

<TABLE>
<CAPTION>

COMPENSATION NAME AND PRINCIPAL POSITION -----	ANNUAL COMPENSATION		
	YEAR ----	SALARY -----	BONUS -----
<S>	<C>	<C>	<C>
Louis R. Bucalo.....	1996	\$210,000	\$42,000 (3)
President and Chief Executive Officer.....	1995	\$188,000 (1)	\$ 0
	1994	\$206,000 (1)	\$35,000
Sunil Bhonsle.....	1996	\$185,000	\$ 9,250 (3)
Executive Vice President and COO.....	1995	\$ 50,104	\$ 0
	1994	\$ 0	\$ 0
Richard C. Allen.....	1996	\$185,000	\$15,500 (3)
Executive Vice President (2)	1995	\$166,000	\$ 0
	1994	\$ 0	\$ 0

</TABLE>

(1) A portion of the cash compensation paid to Dr. Bucalo was allocable to the Operating Companies during 1995 and 1994 pursuant to management services arrangements between them and the Company. See "Certain Relationships and Related Transactions."

(2) Dr. Allen also serves as President and Chief Executive Officer of Theracell and President and Chief Operating Officer of ProNeura. Dr. Allen receives his entire salary from Theracell which he joined in January 1995.

(3) Bonuses pertain to fiscal year 1995 and have been accrued by the Company. Payment of bonuses is dependent upon a number of factors, including the exercise of the Company's Class A Warrants.

The following table contains information concerning the stock option grants made to the named executive officers during the fiscal year ended December 31, 1996. No stock appreciation rights were granted to these individuals during such year.

INDIVIDUAL GRANT SECURITIES

NAME	NUMBER OF	% OF TOTAL	EXERCISE OR	EXPIRATION
	UNDERLYING			
	GRANTED	TO EMPLOYEES IN	(\$/SH) (1)	
	(#)	FISCAL YEAR		
Louis R. Bucalo.....	10,000	1.0%	\$ 5.00	01/18/2001
	104,100	10.2%	\$ 7.13	04/02/2006
	433,088	42.6%	\$ 10.75	08/06/2006
Sunil Bhonsle.....	42,200	4.2%	\$ 7.13	04/02/2006
	175,086	17.2%	\$ 10.75	08/06/2006
Richard C. Allen....	13,700	1.3%	\$ 7.13	04/02/2006
	61,961	6.1%	\$ 10.75	08/06/2006

(1) The exercise price may be paid in cash, in shares of Common Stock valued at the fair market value on the exercise date or through a cashless exercise procedure involving a same-day sale of the purchase shares. The Company may also finance the option exercise by loaning the optionee sufficient funds to pay the exercise price for the purchased shares, together with any federal and state income tax liability incurred by the optionee in connection with such exercise.

AGGREGATE OPTION EXERCISES IN LAST FISCAL YEAR AND FISCAL YEAR-END OPTION VALUES

The following table sets forth information concerning option exercises and option holdings for the fiscal year ended December 31, 1996 with respect to the named executive officers. No stock appreciation rights were exercised during such year or were outstanding at the end of the year.

<TABLE>
<CAPTION>

<S>	SHARES ACQUIRED	NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS AT FY-END (#)		VALUE OF UNEXERCISED IN-THE-MONEY OPTIONS AT FY-END (1)		
		UNEXERCISE (2)	EXERCISABLE	UNEXERCISABLE	EXERCISABLE	UNEXERCISABLE
		<C>	<C>	<C>	<C>	<C>
Louis R. Bucalo.....	-0-	113,640	515,303	\$470,461	\$304,875	
Sunil Bhonsle.....	-0-	50,576	282,523	\$207,653	\$638,721	
Richard C. Allen.....	-0-	47,415	86,152	\$109,107	\$305,789	

(1) Based on the fair value of the Company's Common Stock at year-end, \$8.25 per share, less the exercise price payable for such shares.

(2) Options are immediately exercisable for some option shares; however, since a portion of the shares purchasable upon exercise of the options are subject to repurchase by the Company at the original exercise price per share upon the optionee's cessation of service, such options are deemed unexercisable for purposes of this table.

EMPLOYMENT AGREEMENTS

The Company is a party to employment agreements with each of Dr. Bucalo, President and Chief Executive Officer of the Company, Sunil Bhonsle, Executive Vice President and Chief Operating Officer of the Company, Robert E. Farrell, Executive Vice President and Chief Financial Officer of the Company, and Richard C. Allen, Executive Vice President of the Company. The agreement with Dr. Bucalo expires in February 1999 and provides for a current base annual salary of \$210,000, subject to annual increases of 5% and bonuses of up to 20% at the discretion of the Board of Directors. In the event of the termination of the agreement with Dr. Bucalo, other than for reasons specified therein, the Company is obligated to make severance payments equal to his base annual

salary for the greater of the balance of the term of the agreement or 18 months. The agreement with Mr. Bhonsle provides for a base annual salary of \$185,000 subject to automatic annual increases, based on increases in the consumer price index, and bonuses of up to 20% at the discretion of the Board of Directors. In the event Mr. Bhonsle's employment is terminated other than for "good cause" (as defined), the Company is obligated to make severance payments equal to his base annual salary for up to nine months. Mr. Bhonsle has also been granted certain options that vest over five years if he remains employed by the Company. The agreement with Mr. Farrell provides for a base annual salary of \$185,000 subject to automatic annual increases, based on increases in the consumer price index, and bonuses of up to 20% at the discretion of the Board of Directors. In the event Mr. Farrell's employment

is terminated other than for "good cause" (as defined), the Company is obligated to make severance payments equal to his base annual salary for between six and nine months. Dr. Allen receives no salary from the Company (his primary compensation is from Theracell) but has been granted certain stock options which vest over five years if he remains employed by the Company. All of the foregoing agreements contain confidentiality provisions.

ITEM 11. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT.

The following table sets forth, as of March 25, 1997, certain information concerning the beneficial ownership of the Company's Common Stock by (i) each shareholder known by the Company to own beneficially five percent or more of the outstanding Common Stock of the Company; (ii) each director; (iii) each executive officer of the Company; and (iv) all executive officers and directors of the Company as a group, and their percentage ownership and voting power.

<TABLE>
<CAPTION>

NAME AND ADDRESS OF BENEFICIAL OWNER (1)	SHARES BENEFICIALLY OWNED (2)	PERCENT OF SHARES BENEFICIALLY OWNED
<S>	<C>	<C>
Louis R. Bucalo, M.D.	404,714 (3)	3.1%
Sunil Bhonsle	160,068 (4)	1.2%
Robert E. Farrell	-	-
Richard Allen Ph.D.	97,760 (4)	*
Lindsay A. Rosenwald, M.D.	660,034 (5)	5.0%
Michael K. Hsu	22,346 (6)	*
Hubert Huckel, M.D.	2,500 (4)	*
Marvin Jaffe, M.D.	2,500 (4)	*
Konrad M. Weis, Ph.D.	51,852 (7)	*
Kenneth J. Widder, M.D.	15,237 (7)	*
Ernst-Gunter Afting, Ph.D.	-	-
Invesco Trust Company 7800 E. Union Avenue Denver, CO 80237	1,220,538 (8)	9.36%
All executive officers and directors as a group (11) persons	1,417,011 (9)	10.3%

</TABLE>

*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 Common Stock of the Company subject to options held by that person that are currently exercisable or exercisable within 60 days 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 194,483 shares issuable upon exercise of outstanding options.
 - (4) Represents shares issuable upon exercise of outstanding options.
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- (5) Includes (i) 90,084 shares held by entities owned by Mr. Rosenwald, and (ii) 267,154 shares issuable upon exercise of outstanding options and warrants. Does not include (i) 94,589 shares held by his wife; (ii) 40,536 shares held by his wife in trust for the benefit of their children; (iii) 585,718 shares held by or underlying warrants held by Venturetek L.P., a limited partnership, the limited partners of which include Dr. Rosenwald's wife and children; or (iv) shares underlying Class A Warrants held by The Aries Trust and The Aries Domestic Fund L.P. as to which Dr. Rosenwald serves as investment manager and President of the general partner, respectively. Dr. Rosenwald disclaims beneficial ownership as to all of such shares. See "Certain Transactions."
 - (6) Includes 11,314 shares issuable upon exercise of outstanding options.
 - (7) Includes 7,617 shares issuable upon exercise of outstanding options.
 - (8) Represents shares held by three mutual funds managed by Invesco Funds Group, Inc. or Invesco Trust Company.
 - (9) See Notes (3) through (7) above.

ITEM 12. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS.

In March and April 1993, the Company borrowed an aggregate of \$700,000 from Dr. Lindsay A. Rosenwald, the co-founder and a director of the Company. The loan was evidenced by a 10% promissory note payable on demand. Dr. Rosenwald received warrants which are currently exercisable to purchase an aggregate of 20,355 shares of Common Stock at an exercise price of \$4.50 per share. In June 1995, the note, together with accrued interest, was canceled in consideration of the issuance to Dr. Rosenwald of shares of Series A Preferred Stock which subsequently converted into 215,135 shares of Common Stock.

In April and May 1993, Dr. Rosenwald made loans to the Company in the aggregate principal amount of \$1,014,000. Such loans were repaid, together with accrued interest at the rate of 7% per annum, from the proceeds of the private placement of Series A Preferred Stock described below.

Between July and November 1993, Paramount Capital, Inc. ("Paramount") acted as placement agent in connection with the Company's private placement of Series A Preferred Stock. Paramount received \$1,729,575 in commissions and a \$576,525 expense allowance in consideration for its services. In addition, designees of Paramount received warrants to purchase Series A Preferred Stock in connection with the private placement which currently represent warrants to purchase an aggregate of 469,107 shares of Common Stock exercisable at \$4.50 per share. Dr. Rosenwald, a director of the Company, serves as the President and Chairman of Paramount. Dr. Rosenwald received warrants to purchase 221,221 of the aforementioned shares of Common Stock.

In January 1995, the Company agreed to issue warrants to purchase an aggregate of 7,395 shares of Common Stock at an exercise price of \$3.25 per share to Ray Dirks Research ("RDR") or its designees for services rendered in connection with a license transaction. Michael Hsu, a director of the Company, serves as a consultant to RDR and received one-half of such warrants.

In February 1995, Paramount acted as placement agent in connection with the Company's private placement of Series B Preferred Stock. Paramount received \$103,125 in commissions and a \$45,375 expense allowance for services rendered in connection with such private placement. In addition, designees of Paramount received Series B Preferred Stock purchase warrants which currently represent warrants to purchase an aggregate of 46,350 shares of Common Stock at an exercise price of \$3.92 per share. Dr. Rosenwald received warrants to purchase 17,961 of such shares.

Between August and October 1995, The Aries Domestic Fund L.P. and The Aries Trust loaned the Company an aggregate of \$250,000 evidenced by the promissory notes (the "Investor Notes") which bore interest at the rate of 12% per annum and were payable on the earlier of the closing of an initial public offering or one year from the date of issuance. In accordance with their terms, the principal amount of the Investor Notes was converted into \$250,000 principal amount of Bridge Notes and 125,000 warrants as part of the Bridge Financing. Accrued interest on the Investor Notes was repaid in January 1996. Repayment of the principal and accrued interest on the Bridge Notes was made upon completion of the Company's IPO. Dr. Rosenwald is the President of the general partner of The Aries Domestic Fund L.P. and serves as investment manager for The Aries Trust.

The Company believes that all of the transactions set forth above were made on terms no less favorable to the Company than could have been obtained from unaffiliated third parties. The Company has adopted a policy that

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all future transactions, including loans, between the Company and its officers, directors, principal stockholders and their affiliates will be approved by a majority of the Board of Directors, including a majority of the independent and disinterested outside directors on the Board of Directors, and will continue to be on terms no less favorable to the Company than could be obtained from unaffiliated third parties

In March 1997, Titan and Ansan entered into an agreement for financing pursuant to which Titan advanced Ansan \$1,000,000 in return for a debenture (the "Debenture") which is convertible at any time prior to June 21, 1997 into 333,333 shares of Ansan common stock, representing a conversion price of \$3.00 per share. In connection with the issuance of the Debenture, Ansan granted Titan an option (the "First Option") to acquire an additional 333,333 shares of Ansan common stock for an aggregate purchase price of \$1,000,000. The First Option expires on June 21, 1997.

In the event the Debenture is converted to equity, Ansan will grant to Titan two additional options (respectively, the "Second Option" and the "Third Option"). The Second Option will be exercisable for two years from the date of grant to purchase up to 1,630,000 shares of Ansan common stock at an exercise price of \$3.75 per share. The Third Option will be exercisable through August 8, 2000 to purchase up to 500,000 additional shares at an exercise price of \$6.50 per share. Titan will be obligated to exercise the Second Option for the purchase of specified numbers of shares in the event Titan's outstanding Class A Warrants are exercised, provided Ansan has not completed public or private

equity financings resulting in specified gross proceeds prior to the date such a purchase obligation arises.

ITEM 13. EXHIBITS, LISTS AND REPORTS ON FORM 8-K.

- 3.1* -- Restated Certificate of Incorporation of the Registrant
- 3.2* -- Form of Amendment to Restated Certificate of Incorporation of the Registrant
- 3.3* -- By-laws of the Registrant
- 4.1* -- Form of Bridge Note
- 4.2* -- Bridge Warrant Agreement
- 4.3* -- Form of Warrant Agreement
- 4.4* -- Form of Underwriter's Unit Purchase Option
- 4.5* -- Amended and Restated Investor Rights Agreement between the Registrant and the holders of Series and Series B Preferred Stock
- 10.1* -- 1993 Stock Option Plan
- 10.2* -- 1995 Stock Option Plan
- 10.3* -- Employment Agreement between the Registrant and Louis Bucalo dated February 1, 1993, amended as of February 3, 1994
- 10.4* -- Employment Agreement between the Registrant and Richard Allen dated July 28, 1995
- 10.5* -- Employment Agreement between the Registrant and Sunil Bhonsle dated August 6, 1995
- 10.6* -- Form of Indemnification Agreement
- 10.7* -- Master Equipment Lease between the Registrant and Phoenix Leasing Incorporated, dated February 15, 1994 and Sublease and Acknowledgment of Assignment between the Registrant and Ansan, Inc., Ingenex, Inc., Theracell, Inc. and Geneic Sciences, Inc. dated February 15, 1994
- +10.8* -- GSE Exclusive License Agreement between Ingenex, Inc. (formerly Pharm-Gen Systems Ltd.) and the Board of Trustees of the University of Illinois dated May 6, 1992
- +10.9* -- MDR Exclusive License Agreement between Ingenex, Inc. (formerly Pharm-Gen Systems Ltd.) and the Board of Trustees of the University of Illinois dated May 6, 1992
- 10.10* -- License Agreement between Ansan, Inc. and Bar-Ilan Research and Development Company Ltd. Dated October 31, 1992
- +10.11* -- License Agreement between Theracell, Inc. and New York University dated November 20, 1992, as amended February 23, 1993 and as of February 21, 1995

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- +10.12* -- License Agreement between the Registrant and the Massachusetts Institute of Technology dated September 28, 1995
- +10.13* -- License Assignment between Ingenex, Inc. and Aberlyn Capital Management Limited Partnership dated January 31, 1995, as amended
- +10.14* -- Exclusive License Agreement between Ingenex, Inc. and the Board of Trustees of the University of Illinois, dated July 1, 1994
- +10.15* -- Exclusive License Agreement between Ingenex, Inc. and the Board of Trustees of the University of Illinois, dated July 1, 1994
- +10.16* -- License Agreement between Ingenex, Inc. and the Massachusetts Institute of Technology, dated September 11, 1992
- +10.17* -- License Agreement between Ingenex, Inc. and Baylor College of Medicine, dated October 21, 1992
- 10.18** -- Form of lease for Registrant's facilities
- +10.19*** -- License Agreement between Theracell, Inc. and the University of South Florida dated March 15, 1996
- +10.20**** -- License Agreement between Trilex Pharmaceuticals, Inc. (formerly Ascalon Pharmaceuticals, Inc.) and the University of Kentucky Research Foundation dated May 30, 1996
- +10.21***** -- License Agreement between Ansan Pharmaceuticals, Inc. and Boehringer Ingelheim GmbH dated May 31, 1996
- ++10.22 -- License Agreement between the Registrant and Hoechst Marion Roussel, Inc. effective as of December 31, 1996
- 10.23 -- Employment agreement between the Registrant and Robert E. Farrell dated August 9, 1996
- 11.1 -- Computation of net loss per share
- 21 -- List of significant subsidiaries
- 27 -- Financial Data Schedule

- + Confidential treatment has been granted with respect to portions of this exhibit.
- ++ Confidential treatment has been requested with respect to portions of this exhibit.
- * Incorporated by reference from the Registrant's Registration Statement on Form SB-2 (File No. 33-99386)
- ** Incorporated by reference from the Registrant's Annual

- Report on Form 10-KSB for the year ended December 31, 1995.
- *** Incorporated by reference from the Registrant's Quarterly Report on Form 10-Q for the period ended March 31, 1996
- **** Incorporated by reference from the Registrant's Registration Statement on Form SB-3 (File No. 333-13469)
- ***** Incorporated by reference from Ansan Pharmaceuticals, Inc. Quarterly Report on Form 10-QSB for the period ended June 30, 1996
- (b) Reports on Form 8-K. No reports on Form 8-K have been filed during the three months ended December 31, 1996.

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TITAN PHARMACEUTICALS, INC.
 (A DEVELOPMENT STAGE COMPANY)
 INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

The Board of Directors and Stockholders
 Titan Pharmaceuticals, Inc.

We have audited the accompanying consolidated balance sheets of Titan Pharmaceuticals, Inc. (a development stage company) as of December 31, 1995 and 1996, and the related consolidated statements of operations, stockholders' equity (net capital deficiency), and cash flows for the years then ended and for the period from July 25, 1991 (commencement of operations) to December 31, 1996. 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 generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. 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.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Titan Pharmaceuticals, Inc. (a development stage company) at December 31, 1995 and 1996, and the consolidated results of its operations and its cash flows for the years then ended and for the period from July 25, 1991 (commencement of operations) to December 31, 1996 in conformity with generally accepted accounting principles.

ERNST & YOUNG LLP

Palo Alto, California
 February 21, 1997

TITAN PHARMACEUTICALS, INC.
(A DEVELOPMENT STAGE COMPANY)
CONSOLIDATED BALANCE SHEETS

<TABLE>
<CAPTION>

	DECEMBER 31,	
	1995	1996
<S>	<C>	<C>
ASSETS		
Current assets:		
Cash and cash equivalents.....	\$ 947,805	\$ 1,376,532
Short-term investments.....	--	13,000,000
Prepaid expenses and other current assets.....	40,071	193,324
Receivable from Ansan Pharmaceuticals, Inc.....	57,791	117,881
	-----	-----
Total current assets.....	1,045,667	14,687,737
Furniture and equipment, net.....	848,852	791,579
Deferred stock offering costs.....	522,299	--
Deferred financing costs.....	600,183	96,349
Investment in Ansan Pharmaceuticals, Inc.....	1,589,826	590,854
Other assets.....	125,344	199,830
	-----	-----
	\$ 4,732,171	16,366,349
	-----	-----
LIABILITIES AND STOCKHOLDERS' EQUITY (Net Capital Deficiency)		
Current Liabilities		
Accounts payable.....	\$ 714,896	\$ 692,982
Notes payable by Ingenex, Inc.--bridge financing.....	1,500,000	--
Notes payable by Titan Pharmaceuticals, Inc.--bridge financing.....	2,800,000	--
Accrued legal fees.....	691,368	587,800
Accrued sponsored research.....	304,202	163,905
Other accrued liabilities.....	546,057	233,044
Current portion of capital lease obligation.....	226,709	265,462
Current portion of technology financing--Ingnex, Inc. ..	494,107	570,711
	-----	-----
Total current liabilities.....	7,277,339	2,513,904
Noncurrent portion of capital lease obligation.....	747,142	481,676
Noncurrent portion of technology financing--Ingenex, Inc.....	1,289,313	718,602
Commitments		
Minority interest--Series B preferred stock of Ingenex, Inc.....	1,241,032	1,241,032
Stockholders' Equity (net capital deficiency)		
Preferred stock, \$0.001 par value per share; 30,000,000 and 5,000,000 shares authorized at December 31, 1995 and 1996, respectively, issuable in series:		
Series A, 3,885,571 shares designated, 3,534,199 shares issued and outstanding at December 31, 1995, none at December 31, 1996;.....	17,763,978	--
Series B, 2,440,513 shares designated, 244,043 shares issued and outstanding at December 31, 1995, none at December 31, 1996;.....	1,143,794	--
Common stock, \$0.001 par value per share; 50,000,000 and 30,000,000 shares authorized at December 31, 1995 and 1996, respectively; 1,548,519 and 12,399,037 shares issued and outstanding at December 31, 1995 and 1996, respectively.....	745,476	49,619,784
Additional paid-in capital.....	6,186,353	6,521,353
Deferred compensation.....	(418,000)	(630,100)
Deficit accumulated during the development stage.....	(31,244,256)	(44,099,902)
	-----	-----
Total stockholders' equity (net capital deficiency)...	(5,822,655)	11,411,135
	-----	-----
	\$ 4,732,171	\$ 16,366,349
	-----	-----

</TABLE>

See accompanying notes.

CONSOLIDATED STATEMENTS OF OPERATIONS

<TABLE>
<CAPTION>

	YEAR ENDED DECEMBER 31,		PERIOD FROM COMMENCEMENT OF OPERATIONS (JULY 25, 1991) TO DECEMBER 31,
	1995	1996	1996
<S>	<C>	<C>	<C>
Grant revenue.....	\$ 139,522	\$ 258,811	\$ 398,333
Costs and expenses:			
Research and development.....	5,201,507	5,566,772	27,580,393
Acquired in-process research and development....	686,000	--	686,000
General and administrative.....	3,657,900	5,263,964	11,828,346
Total costs and expenses.....	9,545,407	10,830,736	40,094,739
Loss from operations.....	(9,405,885)	(10,571,925)	(39,696,406)
Other income (expense):			
Equity in loss of Ansan Pharmaceuticals, Inc....	(457,114)	(998,972)	(1,456,086)
Interest income.....	67,868	715,984	1,170,742
Interest expense.....	(1,899,148)	(2,010,664)	(4,163,002)
Other income (expense)--net.....	(2,288,394)	(2,293,652)	(4,448,346)
Loss before minority interest.....	(11,694,279)	(12,865,577)	(44,144,752)
Minority interest in losses of subsidiaries.....	825	9,931	44,850
Net loss.....	(11,693,454)	(12,855,646)	(44,099,902)
Deemed dividend upon conversion of preferred stock.....	--	(5,431,871)	
Net loss attributable to common stockholders.....	\$ (11,693,454)	\$ (18,287,517)	
Pro forma net loss per share.....	\$ (1.54)		
Shares used in computing pro forma net loss per share.....	7,617,470		
Net loss per share.....		\$ (1.67)	
Shares used in computing net loss per share.....		10,936,046	

</TABLE>

See accompanying notes.

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TITAN PHARMACEUTICALS, INC.
(A DEVELOPMENT STAGE COMPANY)

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY (NET CAPITAL DEFICIENCY)

<TABLE>
<CAPTION>

	COMMON STOCK					
	SERIES A PREFERRED STOCK		SERIES B PREFERRED STOCK		CLASS A	
	SHARES	AMOUNT	SHARES	AMOUNT	SHARES	AMOUNT
<S>	<C>	<C>	<C>	<C>	<C>	<C>
Net loss--Commencement of operations (July 25, 1991) to December 31, 1992.....	--	\$ --	--	\$ --	--	\$ --
Issuance of shares of Class A common stock for cash to founders and investors in February 1993 for \$0.005 per share.....	--	--	--	--	998,367	5,853
Issuance of shares of Class B common stock for cash to an employee in						

February 1992 for \$0.005 per share.....	--	--	--	--	--	--
Issuance of shares of Class A common stock for cash to investors in March 1993 for \$0.297 per share, net of issuance costs of \$1,503.....	--	--	--	--	184,994	52,722
Grant of shares of Class A common stock to an employee in June 1993 at \$0.005 per share.....	--	--	--	--	42,645	250
Issuance of shares of Series A preferred stock for cash to investors in November 1993 for \$5.868 per share, net of issuance costs of \$2,759,851.....	3,278,069	16,457,649	--	--	--	--
Conversion of shares of Class B common stock into shares of Class A common stock.....	--	--	--	--	167,587	563
Foregiveness of notes payable to stockholder.....	--	--	--	--	--	--
Net loss--Year ended December 31, 1993.....	--	--	--	--	--	--
Balances at December 31, 1993.....	3,278,069	16,457,649	--	--	1,393,593	59,388
Issuance of shares of Class A common stock for cash to a consultant in April 1994 for \$0.005 per share.....	--	--	--	--	14,926	88
Increase in paid-in capital from issuance of common stock by Ingenex, Inc.....	--	--	--	--	--	--
Net loss--Year ended December 31, 1994.....	--	--	--	--	--	--
Balances at December 31, 1994.....	3,278,069	16,457,649	--	--	1,408,519	59,476

<CAPTION>

COMMON STOCK

	CLASS B		ADDITIONAL PAID-IN CAPITAL	DEFERRED COMPENSATION	DEFICIT ACCUMULATED DURING THE DEVELOPMENT STAGE	TOTAL STOCKHOLDERS' EQUITY (NET CAPITAL DEFICIENCY)
	SHARES	AMOUNT				
<S>	<C>	<C>	<C>	<C>	<C>	<C>
Net loss--Commencement of operations (July 25, 1991) to December 31, 1992.....	--	\$ --	\$ --	\$ --	\$ (819,331)	\$ (819,331)
Issuance of shares of Class A common stock for cash to founders and investors in February 1993 for \$0.005 per share.....	--	--	--	--	--	5,853
Issuance of shares of Class B common stock for cash to an employee in February 1992 for \$0.005 per share.....	95,951	563	--	--	--	563
Issuance of shares of Class A common stock for cash to investors in March 1993 for \$0.297 per share, net of issuance costs of \$1,503.....	--	--	--	--	--	52,722
Grant of shares of Class A common stock to an employee in June 1993 at \$0.005 per share.....	--	--	--	--	--	250
Issuance of shares of Series A preferred stock for cash to investors in						

November 1993 for \$5.868 per share, net of issuance costs of \$2,759,851.....	--	--	--	--	--	16,457,649
Conversion of shares of Class B common stock into shares of Class A common stock.....	(95,951)	(563)	--	--	--	--
Forgiveness of notes payable to stockholder.....	--	--	40,000	--	--	40,000
Net loss--Year ended December 31, 1993.....	--	--	--	--	(5,757,296)	(5,757,296)
Balances at December 31, 1993.....	--	--	40,000	--	(6,576,627)	9,980,410
Issuance of shares of Class A common stock for cash to a consultant in April 1994 for \$0.005 per share.....	--	--	--	--	--	88
Increase in paid-in capital from issuance of common stock by Ingenex, Inc.....	--	--	128,805	--	--	128,805
Net loss--Year ended December 31, 1994.....	--	--	--	--	(12,974,175)	(12,974,175)
Balances at December 31, 1994.....	--	--	168,805	--	(19,550,802)	(2,864,872)

See accompanying notes.

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TITAN PHARMACEUTICALS, INC.
(A DEVELOPMENT STAGE COMPANY)

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY (NET CAPITAL DEFICIENCY)

<TABLE>
<CAPTION>

	COMMON STOCK					
	SERIES A PREFERRED STOCK		SERIES B PREFERRED STOCK		CLASS A	
	SHARES	AMOUNT	SHARES	AMOUNT	SHARES	AMOUNT
<S>	<C>	<C>	<C>	<C>	<C>	<C>
Issuance of shares Series B preferred stock for cash to investors in February 1995 for \$6.761 per share, net of issuance costs of \$506,206.....	--	--	244,043	1,143,794	--	--
Increase in paid-in capital from issuance of warrants by Ingenex, Inc. in connection with bridge financing.....	--	--	--	--	--	--
Increase in paid-in capital from issuance of warrants by Titan Pharmaceuticals, Inc. in connection with bridge financing.....	--	--	--	--	--	--
Conversion of notes payable to related parties and accrued interest into shares of Series A preferred stock.....	256,130	1,306,329	--	--	--	--
Increase in paid-in capital from issuance of common stock by Ansan Pharmaceuticals, Inc....	--	--	--	--	--	--
Deferred compensation related to grant of stock options, net of amortization.....	--	--	--	--	--	--
Issuance of shares of Class A common stock to acquire minority interest of Theracell...	--	--	--	--	140,000	686,000
Net loss--Year ended	--	--	--	--	--	--

December 31, 1995.....						
	--	--	--	--	--	--
Balances at December 31, 1995.....	3,534,199	17,763,978	244,043	1,143,794	1,548,519	745,476
<CAPTION>						
COMMON STOCK						
	CLASS B		ADDITIONAL PAID-IN CAPITAL	DEFERRED COMPENSATION	DEFICIT ACCUMULATED DURING THE DEVELOPMENT STAGE	TOTAL STOCKHOLDERS' EQUITY (NET CAPITAL DEFICIENCY)
	SHARES	AMOUNT				
<S>	<C>	<C>	<C>	<C>	<C>	<C>
Issuance of shares Series B preferred stock for cash to investors in February 1995 for \$6.761 per share, net of issuance costs of \$506,206.....	--	--	--	--	--	1,143,794
Increase in paid-in capital from issuance of warrants by Ingenex, Inc. in connection with bridge financing.....	--	--	600,000	--	--	600,000
Increase in paid-in capital from issuance of warrants by Titan Pharmaceuticals, Inc. in connection with bridge financing.....	--	--	1,200,000	--	--	1,200,000
Conversion of notes payable to related parties and accrued interest into shares of Series A preferred stock.....	--	--	--	--	--	1,306,329
Increase in paid-in capital from issuance of common stock by Ansan Pharmaceuticals, Inc....	--	--	3,777,548	--	--	3,777,548
Deferred compensation related to grant of stock options, net of amortization.....	--	--	440,000	(418,000)	--	22,000
Issuance of shares of Class A common stock to acquire minority interest of Theracell...	--	--	--	--	--	686,000
Net loss--Year ended December 31, 1995.....	--	--	--	--	(11,693,454)	(11,693,454)
Balances at December 31, 1995.....	--	--	6,186,353	(418,000)	(31,244,256)	(5,822,655)
</TABLE>						

See accompanying notes.

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TITAN PHARMACEUTICALS, INC.
(A DEVELOPMENT STAGE COMPANY)

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY (NET CAPITAL DEFICIENCY)

<TABLE>

<CAPTION>

	COMMON STOCK					
	SERIES A PREFERRED STOCK		SERIES B PREFERRED STOCK		CLASS A	
	SHARES	AMOUNT	SHARES	AMOUNT	SHARES	AMOUNT
<S>	<C>	<C>	<C>	<C>	<C>	<C>
Conversion of shares of Series A and Series B preferred stock to Class A common stock in January 1996.....	(3,534,199)	(17,763,978)	(244,043)	(1,143,794)	5,521,140	18,907,772
Issuance of shares of Class A common stock for cash in initial public offering in January and February 1996, net of issuance costs of \$2,549,643.....	--	--	--	--	3,680,000	15,850,357

Issuance of shares of Class A common stock for cash upon exercise of stock option grants at \$0.30 to \$1.35 per share in May through June 1996.....	--	--	--	--	16,520	10,664
Issuance of shares of Class A common stock for cash in private placement in July and August 1996, net of issuance costs of \$2,260,372.....	--	--	--	--	1,536,000	13,739,628
Deferred compensation related to grant of stock options in August 1996.....	--	--	--	--	--	--
Issuance of shares of Class A common stock for cash upon exercise of warrants at \$6.20 per share in September through December 1996...	--	--	--	--	59,014	365,887
Issuance of shares of Class A common stock upon cashless exercise of warrants in November and December 1996.....	--	--	--	--	37,844	--
Amortization of deferred compensation.....	--	--	--	--	--	--
Net loss--Year ended December 31, 1996.....	--	--	--	--	--	--
Balances at December 31, 1996.....	--	\$ --	--	\$ --	12,399,037	\$ 49,619,784

<CAPTION>

	COMMON STOCK				DEFICIT ACCUMULATED DURING THE DEVELOPMENT STAGE	TOTAL STOCKHOLDERS' EQUITY (NET CAPITAL DEFICIENCY)
	CLASS B		ADDITIONAL PAID-IN CAPITAL	DEFERRED COMPENSATION		
	SHARES	AMOUNT				
<S>	<C>	<C>	<C>	<C>	<C>	<C>
Conversion of shares of Series A and Series B preferred stock to Class A common stock in January 1996.....	--	--	--	--	--	--
Issuance of shares of Class A common stock for cash in initial public offering in January and February 1996, net of issuance costs of \$2,549,643.....	--	--	--	--	--	15,850,357
Issuance of shares of Class A common stock for cash upon exercise of stock option grants at \$0.30 to \$1.35 per share in May through June 1996.....	--	--	--	--	--	10,664
Issuance of shares of Class A common stock for cash in private placement in July and August 1996, net of issuance costs of \$2,260,372.....	--	--	--	--	--	13,739,628
Deferred compensation related to grant of stock options in August 1996.....	--	--	335,000	(335,000)	--	--
Issuance of shares of Class A common stock for cash upon exercise of warrants at \$6.20 per share in September through December 1996...	--	--	--	--	--	365,887
Issuance of shares of						

Class A common stock upon cashless exercise of warrants in November and December 1996.....	--	--	--	--	--	--
Amortization of deferred compensation.....	--	--	--	122,900	--	122,900
Net loss--Year ended December 31, 1996.....	--	--	--	--	(12,855,646)	(12,855,646)
Balances at December 31, 1996.....	--	\$ --	\$ 6,521,353	\$ (630,100)	\$ (44,099,902)	\$ 11,411,135

</TABLE>

See accompanying notes.

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TITAN PHARMACEUTICALS, INC.
(A DEVELOPMENT STAGE COMPANY)
CONSOLIDATED STATEMENTS OF CASH FLOWS

<TABLE>
<CAPTION>

	YEAR ENDED DECEMBER 31,		PERIOD FROM COMMENCEMENT OF OPERATIONS (JULY 25, 1991) TO DECEMBER 31,
	1995	1996	1996
<S>	<C>	<C>	<C>
Cash flows from operating activities			
Net loss.....	\$ (11,693,454)	\$ (12,855,646)	\$ (44,099,902)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization.....	328,611	496,466	1,063,191
Accretion of discount on indebtedness.....	883,333	1,407,577	2,290,910
Equity in loss of Ansan Pharmaceuticals, Inc....	457,114	998,972	1,456,086
Other.....	8,122	(9,931)	(35,653)
Issuance of common stock to acquire minority interest of Theracell, Inc.....	686,000	--	686,000
Changes in operating assets and liabilities:			
Prepaid expenses and other current assets.....	71,425	(153,253)	(193,324)
Receivable--Ansan Pharmaceuticals, Inc.....	(57,791)	(60,090)	(117,881)
Other assets.....	45,543	(74,486)	(204,795)
Accounts payable.....	29,444	(21,914)	927,172
Other accrued liabilities.....	642,610	(556,878)	1,475,165
Net cash used in operating activities.....	(8,599,043)	(10,829,183)	(36,753,031)
Cash flows from investing activities			
Purchase of furniture and equipment.....	(8,073)	(270,036)	(1,072,359)
Purchases of short-term investments.....	--	(35,750,000)	(59,682,493)
Proceeds from sales of short-term investments...	--	22,750,000	46,682,493
Effects of deconsolidation of Ansan Pharmaceuticals, Inc.....	(135,934)	--	(135,934)
Net cash used in investing activities.....	(144,007)	(13,270,036)	(14,208,293)

</TABLE>

See accompanying notes.

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TITAN PHARMACEUTICALS, INC.
(A DEVELOPMENT STAGE COMPANY)
CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)

<TABLE>
<CAPTION>

	YEAR ENDED DECEMBER 31,		PERIOD FROM COMMENCEMENT OF OPERATIONS (JULY 25, 1991) TO DECEMBER 31,
	1995	1996	1996
<S>	<C>	<C>	<C>
Cash flows from financing activities			

Issuance of common stock.....	--	29,966,536	30,025,762
Deferred offering costs.....	(522,299)	522,299	--
Deferred financing costs.....	(526,684)	--	(810,248)
Issuance of preferred stock.....	1,143,794	--	17,601,443
Proceeds from notes and advances payable.....	--	--	2,681,500
Repayment of notes payable.....	--	--	(1,441,500)
Proceeds from Ansan Pharmaceuticals, Inc.....	1,425,000	--	1,425,000
Proceeds from Titan Pharmaceuticals, Inc. and Ingenex, Inc. bridge financing.....	5,250,000	--	5,250,000
Repayment of Titan Pharmaceuticals, Inc. and Ingenex, Inc. bridge financing.....	--	(5,250,000)	(5,250,000)
Proceeds from capital lease bridge financing....	--	--	658,206
Payments of principal under capital lease obligation.....	(209,642)	(226,713)	(506,304)
Proceeds from Ingenex, Inc. technology financing.....	2,000,000	--	2,000,000
Principal payments on Ingenex, Inc. technology financing.....	(216,580)	(494,107)	(710,687)
Increase in minority interest from issuances of preferred stock by Ingenex, Inc.....	--	--	1,241,032
Issuance of common stock by subsidiaries.....	822	9,931	173,652
Net cash provided by financing activities.....	8,344,411	24,527,946	52,337,856
Net increase (decrease) in cash and cash equivalents.....	(398,639)	428,727	1,376,532
Cash and cash equivalents at beginning of period.....	1,346,444	947,805	--
Cash and cash equivalents at end of period.....	\$ 947,805	\$ 1,376,532	\$ 1,376,532
Supplemental cash flow disclosure			
Interest paid.....	\$ 370,864	\$ 558,387	\$ 1,166,624
Conversion of notes payable to related parties and accrued interest into Series A preferred stock.....	\$ (1,306,329)	\$ --	\$ (1,306,329)
Acquisition of furniture and equipment pursuant to capital lease.....	\$ --	\$ --	\$ 595,236

</TABLE>

See accompanying notes.

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TITAN PHARMACEUTICALS, INC.
(A DEVELOPMENT STAGE COMPANY)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

THE COMPANY AND ITS SEVERAL DEVELOPMENT STAGE SUBSIDIARIES

Titan Pharmaceuticals, Inc. ("Titan" or the "Company" individually or with its consolidated subsidiaries, as the sense requires) was incorporated in February 1992 in the State of Delaware. It is the holding company for several development stage biotechnology companies ("the Operating Companies"). The development stage companies, which rely significantly on third parties to conduct sponsored research, are Ansan Pharmaceuticals, Inc. ("Ansan"), Ingenex, Inc. ("Ingenex"), Theracell, Inc. ("Theracell"), ProNeura, Inc. ("ProNeura"), and Trilex Pharmaceuticals, Inc. ("Trilex," formed in May 1996), each of which continues in operation, and Geneic Sciences, Inc. ("Geneic"), which ceased operation in September 1995.

ANSAN PHARMACEUTICALS, INC.

Ansan was incorporated in November 1992 to engage in the development of novel treatment of cancer and other disorders characterized by abnormal cellular growth and differentiation. It was a majority-owned consolidated subsidiary until August 1995. In August 1995, Ansan completed an initial public offering of its securities. Such offering reduced the Company's ownership in Ansan from approximately 95% to approximately 43%. Since August 1995, the Company has accounted for its investment in Ansan using the equity method. The Company held an option to purchase an additional 400,000 shares of Ansan's common stock, which expired unexercised in September 1996. At December 31, 1996, the Company owned 43% of Ansan. In March 1997, Ansan and Titan entered into a financing agreement pursuant to which Titan was granted the option to reacquire and maintain a majority equity interest in Ansan. See Note 11.

In connection with the Ansan offering, of the 1,212,654 shares of Ansan that Titan owns, 346,472 shares have been placed in escrow. The escrow shares are not transferable or assignable but may be voted. The escrow shares will be released from escrow if, and only if, Ansan satisfies certain earnings or share price criteria. If the conditions are not met by March 31, 2000, the escrow shares will be canceled and contributed to Ansan's capital.

INGENEX, INC.

Ingenex was incorporated in July 1991 and reincorporated in June 1992. It is engaged in the development of gene-based therapeutics and the discovery of medically important genes for the treatment of cancer and viral diseases. In September 1994, Ingenex issued shares of its Series B convertible preferred stock to a third party for \$1,241,032, net of issuance costs. This transaction reduced the Company's ownership of Ingenex from approximately 82% in the second quarter of fiscal 1994 to approximately 61% at December 31, 1994 (or from approximately 94% to approximately 72% if conversion of all Ingenex preferred stock is assumed). In June 1996, Ingenex issued 981,818 shares of common stock to the Company, converting \$5,400,000 of debt payable to the Company to equity. Also in June 1996, and in consideration of a payment to Ingenex of \$100,000, Ingenex issued to the Company an option to purchase an additional 315,789 shares of common stock which will have an exercise price per share equal to the initial public offering price of Ingenex common stock and an additional option and a right of first refusal with respect to future issuances of common stock in order for the Company to maintain ownership of a majority of the outstanding common stock. The option expires one year from the date of the consummation of the initial public offering of Ingenex common stock. At December 31, 1996, the Company owned 81% of Ingenex.

THERACELL, INC.

Theracell was incorporated in November 1992 to engage in the development of novel treatments for various neurologic disorders through the transplantation of neural cells and neuron-like cells directly into the brain. The Company's ownership in Theracell was 85% through November 1995, at which time the Company entered into an agreement with the minority stockholders of Theracell pursuant to which 140,000 shares of the Company's stock were issued in exchange for all the outstanding shares of Theracell common stock held by them. In connection with the issuance of the 140,000 shares, the Company recorded a charge

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TITAN PHARMACEUTICALS, INC.
(A DEVELOPMENT STAGE COMPANY)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

for acquired in-process research and development of \$686,000. In November 1995, the former minority stockholders of Theracell were granted an option to acquire 5% of the issued and outstanding capital stock of Theracell. These options can be exercised at a price of \$1.59 per share within a period of three years from January 18, 1996. Commencing thirty days after the date Theracell's shares are first publicly traded, the Theracell options may be subject to redemption under certain conditions by Theracell on thirty days' written notice at a redemption price of \$0.05 per share if the closing price of Theracell's common stock for any thirty consecutive trading days ending within fifteen days of the notice of redemption averages in excess of \$3.18 per share. At December 31, 1996, the Company owned 99% of Theracell.

PRONEURA, INC.

ProNeura was incorporated in October 1995 to engage in the development of cost effective, long term treatment solutions to neurologic and psychiatric disorders through an implantable drug delivery system. At December 31, 1996, the Company owned 79% of ProNeura.

TRILEX PHARMACEUTICALS, INC.

Trilex was incorporated in May 1996 to engage in research and development of cancer therapeutic vaccines utilizing anti-idiotypic antibody technology. At December 31, 1996, the Company owned 100% of Trilex.

GENEIC SCIENCES, INC.

Geneic had conducted research and development activities pursuant to sponsored research and licensing agreements with a university, which was a minority stockholder of Geneic. In September 1995, the Company and the university terminated the agreements, at which time all rights in the technology licensed from the university reverted to the university and the minority interest in Geneic held by the university was contributed to the capital of Geneic. Geneic ceased operations at such time.

INITIAL PUBLIC OFFERING

In January 1996, the Company completed its initial public offering ("IPO")

of 3,200,000 units (consisting of one share of common stock and one redeemable warrant to acquire one share of common stock - see Note 7) resulting in net proceeds of approximately \$13.7 million (\$15.9 million after exercise of the underwriter's overallotment option as to 480,000 units in February 1996). In connection with the IPO, the underwriter was granted an option to acquire 320,000 additional units at a price of \$6.50 per unit.

BASIS OF PRESENTATION

The accompanying consolidated financial statements include the accounts of Titan and the majority owned Operating Companies. Ansan was consolidated until its initial public offering in August 1995. All significant intercompany transactions and accounts have been eliminated in consolidation.

The financial statements of the Company include the results of Ingenex from the date Ingenex was incorporated (July 25, 1991), as the entities were under common control.

The activities of the Company have primarily consisted of establishing offices and research facilities, recruiting personnel, conducting research and development, preclinical and clinical studies, performing business and financial planning and raising capital. Accordingly, the Company is considered to be in the development stage. The Company has incurred losses since inception of \$44.1 million and expects to incur increasing losses and require additional financial resources to achieve commercialization of its products.

The Company anticipates working on a number of long-term development projects which will involve experimental and unproven technologies. The projects may require many years and substantial expenditures prior to commercialization. Therefore, the Company will need to obtain additional funds from the issuance of equity or debt securities, from corporate partners, or from other sources to continue its research and development activities, fund operating expenses, pursue regulatory approvals and build production, sales and marketing capabilities, as necessary. Management believes that sufficient capital will be available to achieve planned

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TITAN PHARMACEUTICALS, INC.
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business objectives, including supporting certain preclinical development and clinical testing, through at least 1997. If the Company is unable to obtain necessary cash, more substantial restructuring options may be necessary, which would have a material adverse effect on the Company's business, results of operations and prospects.

CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS

The Company considers all highly liquid investments with an original maturity of 90 days or less to be cash equivalents. Cash equivalents include \$855,114 and \$896,970 in money market funds at December 31, 1995 and 1996, respectively. The Company's investment policy is to maintain liquidity and ensure safety of principal.

At December 31, 1996, short term investments is comprised of auction rate preferred stock (preferred stock in money market funds), classified as "available for sale." Such investments are carried at cost, which approximates their market value. The Company has not realized any gains or losses on its investments.

FURNITURE AND EQUIPMENT

Furniture and equipment is stated at cost and is depreciated using the straight-line method over the estimated useful lives of the assets ranging from three to five years. Assets under capital leases are amortized over the shorter of the lease term or life of the asset.

REVENUE RECOGNITION

Revenue consists of revenue from government grants which support the Company's research effort in specific research projects. These grants generally provide for reimbursement of approved costs incurred as defined in the various agreements.

SPONSORED RESEARCH

Research and development expenses under sponsored research arrangements are recognized as the related services are performed, generally ratably over the period of service. Payments for license fees are expensed when paid.

STOCK-BASED COMPENSATION

In accordance with the provisions of Statement of Financial Accounting

Standards No. 123, "Accounting for Stock-Based Compensation" ("SFAS 123"), the Company has elected to follow Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB 25") and related interpretations and to adopt the "disclosure only" alternative described in SFAS 123 in accounting for its employee stock option plans. Under APB 25, if the exercise price of the Company's employee stock options equals or exceeds the fair value of the underlying stock on the date of grant, no compensation expense is recognized.

The Company recorded \$440,000 in deferred compensation for the difference between the grant price and the deemed fair value of the Company's common stock for certain options granted in the 12-month period prior to the IPO. The deferred compensation is being amortized to expense over the vesting period of the options, generally five years.

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TITAN PHARMACEUTICALS, INC.
(A DEVELOPMENT STAGE COMPANY)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

During 1996, options to purchase shares of common stock were granted under the 1995 Stock Option Plan subject to stockholder approval of an amendment to the 1995 Option Plan to increase the number of shares authorized for issuance thereunder to 1,300,000. Such approval was made by the stockholders at the Company's annual meeting. Due to an increase in the stock price, deferred compensation of \$335,000 was recorded in October 1996. The deferred compensation will be amortized to expense over the four-year vesting period of the options.

NET LOSS PER SHARE

For purposes of computing per share data for the year ended December 31, 1996, the net loss has been increased by a \$5,431,871 deemed dividend (see Note 7). Net loss per share is computed using the weighted average number of common shares outstanding. Common equivalent shares are excluded from the computation as their effect is antidilutive, except that, pursuant to the Securities and Exchange Commission ("SEC") Staff Accounting Bulletins, common and common equivalent shares (stock options, warrants and preferred stock) issued during the period commencing 12 months prior to the IPO at prices below the assumed IPO price have been included in the calculation for 1995 (using the treasury stock method for stock options and warrants and the if-converted method for preferred stock). Net loss per share calculated on this basis for the year ended December 31, 1995 was \$5.03.

Pro forma net loss per share has been computed as described above and also gives effect, pursuant to SEC policy, to common equivalent shares from convertible preferred stock issued more than 12 months prior to the the IPO that automatically converted upon completion of the Company's IPO (using the if-converted method) from the original date of issuance.

USE OF ESTIMATES

The preparation of financial statements in conformity with 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.

2. INVESTMENT IN ANSAN PHARMACEUTICALS, INC.

Summarized financial information for Ansan, which was a majority-owned consolidated subsidiary until August 1995, at which time it became an equity method investee of the Company, is as follows:

<TABLE>
<CAPTION>

	DECEMBER 31,	
	1995	1996
<S>	<C>	<C>
Assets:		
Cash, cash equivalents and short-term investments	\$ 3,854,312	\$ 1,745,778
Other	126,333	177,696
	3,980,645	1,923,474
Less liabilities:		
Payable to Company	57,791	117,881
Other	280,172	216,155
	337,963	334,036

Stockholders' equity:

Common stock - 2,786,798 and 2,845,108 shares issued and outstanding at December 31, 1995 and 1996, respectively

Deferred compensation

Accumulated deficit

10,678,061	10,850,017
(236,118)	(180,561)
(6,799,261)	(9,080,018)
<u>\$ 3,642,682</u>	<u>\$ 1,589,438</u>

Company share, 1,212,654 shares, 44% and 43%

</TABLE>

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TITAN PHARMACEUTICALS, INC.
(A DEVELOPMENT STAGE COMPANY)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Operating results and accumulated deficit:

<TABLE>
<CAPTION>

	AS CONSOLIDATED SUBSIDIARY	AS AN EQUITY INVESTEE	
	OF THE COMPANY	OF THE COMPANY	
	SEVEN MONTHS ENDED JULY 31, 1995	AUGUST THROUGH DECEMBER 31, 1995	YEAR ENDED DECEMBER 31, 1996
<S>	<C>	<C>	<C>
Costs and expenses:			
Research and development	\$ 917,290	\$ 503,472	\$ 1,181,090
General and administrative	719,103	328,692	1,257,365
Loss from operations	(1,636,393)	(832,164)	(2,438,455)
Interest income (expense), net	(141,168)	211,681	157,698
Net loss	(1,777,561)	(1,043,845)	(2,280,757)
Accumulated deficit:			
Beginning of period	(3,977,855)	(5,755,416)	(6,799,261)
End of period	\$ (5,755,416)	\$ (6,799,261)	\$ (9,080,018)
Company's share of net loss:			
As consolidated subsidiary	\$ (1,777,561)		
As equity investee (approximately 44% and 43% at December 31, 1995 and 1996, respectively)		\$ (457,114)	\$ (998,972)

</TABLE>

A summary of the Company's investment in Ansan follows:

Through July 1995 as a consolidated subsidiary:	
Contributed capital	\$ 2,473,556
Less accumulated losses	(5,755,416)
	<u>(3,281,860)</u>
As an equity investee after July 1995:	
Contribution of indebtedness to capital	1,551,252
Adjustment for equitable share of initial public offering	3,777,548
Less 44% of losses August through December 31, 1995	(457,114)
	<u>1,589,826</u>
Less 43% of losses for the year ended December 31, 1996	(998,972)
	<u>\$ 590,854</u>

The units sold by Ansan in its initial public offering consisted of one share of common stock, one redeemable Class A warrant and one redeemable Class B warrant. These securities are separately but thinly traded. The Company's investment in Ansan consists solely of shares of common stock. As of December 31, 1996, the closing bid price on Ansan's common stock was \$2.00 per share. Based on this closing bid price, the fair market value of the Company's investment in Ansan's common stock on December 31, 1996 would approximate \$ 2,425,308.

TITAN PHARMACEUTICALS, INC.
(A DEVELOPMENT STAGE COMPANY)
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3. FURNITURE AND EQUIPMENT

Furniture and equipment consists of the following at December 31:

	1995	1996
	-----	-----
Furniture and office equipment	\$ 136,366	\$ 160,083
Laboratory equipment	1,062,302	1,162,415
Computer equipment	189,179	335,385
	-----	-----
	1,387,847	1,657,883
Less accumulated depreciation and amortization	(538,995)	(866,304)
	-----	-----
Furniture and equipment, net	\$ 848,852	\$ 791,579
	-----	-----

Depreciation expense was \$306,611 and \$327,309 for the years ended December 31, 1995 and 1996, respectively.

4. SPONSORED RESEARCH AND LICENSE AGREEMENTS

The Operating Companies 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. Expenses under these agreements totaled \$1,024,000 and \$1,827,000 in the years ended December 31, 1995 and 1996, respectively.

At December 31, 1996, the annual aggregate commitments the Company has under these agreements, including minimum license payments, are as follows:

1997	\$ 2,356,300
1998	481,500
1999	393,000
2000	283,000
2001	325,500

	\$ 3,839,300

After 2001, the Company must make annual payments aggregating \$325,500 per year to maintain certain of the foregoing licenses. Certain of the licenses provide for the payment of royalties by the Company on future product sales, if any. In addition, in order to maintain license and other rights during product development, the Company must comply with various conditions including the payment of patent related costs and obtaining additional equity investments.

5. DEBT OBLIGATIONS

NOTES AND ADVANCES PAYABLE TO RELATED PARTIES

In March and April 1993, the Company borrowed \$500,000 and \$700,000, respectively, from stockholders. The unsecured notes payable had an interest rate of 10% per annum and were payable upon demand. The notes and accrued interest were convertible at the option of the holders into shares of Series A preferred stock at a conversion price of \$5.11 per share. Additionally, in connection with these transactions, the stockholders were granted warrants to purchase 23,537 shares of Series A preferred stock at an exercise price of \$6.44 per share. Upon the close of the IPO these warrants became exercisable for 33,682 shares of common stock at a price of \$4.50 per share. The warrants expire in January 1999. In March 1994, the stockholders gave notice of their intention to convert the notes and \$106,329 of accrued interest at December 31, 1993 into 256,130 shares of Series A preferred stock. However, the underlying shares of preferred stock were not issued until June 1995.

From August through October 1995, entities managed by or affiliated with a director of the Company loaned the Company an aggregate of \$250,000. The notes payable bore interest at the rate of 12% per annum and were repaid upon the closing of the IPO. See "Titan Bridge Financing Notes Payable" below.

INGENEX TECHNOLOGY FINANCING AGREEMENT

In January 1995, Ingenex assigned its rights under certain of its technology license agreements to a capital management partnership in exchange for \$2,000,000. Ingenex has licensed back the technology for research and development purposes and has agreed to make monthly payments of \$25,000 through July 1995 and \$60,060 from August 1995 through January 1999. Each payment includes implicit interest at approximately 11.6% per annum. At the end of the payment term, the assigned license rights can be reacquired by Ingenex for \$1.00. As part of the financing agreement, the Company issued to the capital management partnership a warrant to purchase 112,375 shares of the Company's Common Stock at a price of \$3.56 per share. The warrant expires January 31, 2002. The capital management partnership has agreed to not sell, assign, or transfer any securities of the Company without prior written consent of the Company's underwriter. Ingenex incurred a finder's fee of \$140,000 related to this transaction which has been capitalized as deferred financing costs and is being amortized over 48 months. An additional \$45,000 of fees has also been capitalized and is being amortized over 48 months. The Company has guaranteed payment of the loan and has issued finder and director warrants to purchase an aggregate of 7,395 shares of the Company's common stock at an exercise price of \$3.25 per share. The warrants expire in January 2002.

INGENEX BRIDGE FINANCING NOTES PAYABLE

In May 1995, Ingenex completed a bridge financing pursuant to which Ingenex issued \$1,500,000 principal amount of bridge notes payable and 300,000 bridge warrants. Net proceeds from the bridge financing were approximately \$1,305,000 (after expenses of the bridge financing). The bridge notes payable were due, together with interest at the rate of 9% per annum, on December 31, 1995 and Ingenex was not able to repay the notes by that date. Therefore Ingenex and the Company negotiated an extension of the bridge notes until February 28, 1996. The bridge notes were subsequently repaid by the Company with proceeds from the IPO in January 1996. The bridge warrants entitle the holders thereof to purchase one share of Ingenex common stock until May 30, 2000 at a price of \$2.50 per share. The bridge warrants have been assigned a value of \$600,000. This amount was reflected as a discount on the bridge notes and was accreted as additional financing (interest) expense through the date of repayment of the notes payable.

TITAN BRIDGE FINANCING NOTES PAYABLE

In October 1995, the Company completed a bridge financing pursuant to which the Company issued \$3,750,000 principal amount of bridge notes payable and 1,875,000 bridge warrants. A bridge warrant entitles the holder to purchase one share of the Company's common stock at a price of \$3.00 per share. The warrants expire October 13, 2000. This amount includes the \$250,000 for loans to the Company from August through October 1995 (noted above) which were converted, in accordance with the terms of the loans, into \$250,000 principal amount of bridge notes payable and 125,000 bridge warrants. Net proceeds from the bridge financing were approximately \$3,262,500 (after expenses of the issuance). The bridge notes, together with interest at the rate of 10% per annum, were repaid upon the consummation of the IPO in January 1996. The bridge warrants were assigned a value of \$1,200,000. This amount was reflected as a discount on the bridge notes and was accreted as additional financing (interest) expense over the term of the notes until the IPO.

Expenses of the bridge financing, including \$487,500 in commissions, totaled \$577,995, which has been capitalized as deferred financing costs. Upon consummation of the IPO, the unamortized portion of the debt discount and the deferred financing costs were written off in January 1996.

FAIR VALUE OF DEBT OBLIGATIONS

The carrying amounts of the Ingenex technology financing and Ingenex bridge financing notes payable approximate fair value, which was estimated using discounted cash flow analysis, based on Ingenex's current incremental borrowing rate for similar types of borrowing arrangements. The carrying amount of the bridge financing notes payable of the Company reflects the unamortized discount. However, the fair value of these

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TITAN PHARMACEUTICALS, INC.
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instruments at December 31, 1995 would approximate \$3.7 million, as they were repaid out of the proceeds of the IPO in January 1996.

6. LEASES

The Company leases facilities under operating leases that expire at various dates through August 2001. Rent expense was \$550,015 and \$461,815 for years ended December 31, 1995 and 1996, respectively.

The Company is obligated under capital leases for certain equipment with an aggregate cost of \$1,253,441 at December 31, 1995 and 1996. Amortization expense for leased assets is included in depreciation and amortization expense. The leases require the Company to purchase all of the equipment upon expiration of the leases at 25% of the original equipment cost.

The following is a schedule of future minimum lease payments at December 31, 1996:

	OPERATING LEASES	CAPITAL LEASES
1997	\$ 569,354	\$ 365,508
1998	589,063	519,608
1999	232,443	--
2000	100,005	--
2001	50,906	--
Total minimum payments required	\$ 1,541,771	885,116
Less amount representing interest	-----	(137,978)
Present value of future lease payments	-----	747,138
Less current portion	-----	(265,462)
	-----	\$ 481,676
	-----	-----

7. STOCKHOLDERS' EQUITY

INITIAL PUBLIC OFFERING

In January 1996, the Company issued 3,200,000 units at \$5.00 per unit in its IPO. Each unit consisted of one share of common stock and one redeemable Class A warrant. The net proceeds (after underwriter's discount and expenses, and other costs associated with the IPO) totaled \$13,690,357. At the closing of the offering, all of the Company's outstanding preferred stock automatically converted into common stock. In February 1996, the Company issued an additional 480,000 units, at \$5.00 per unit, in accordance with the underwriter's over-allotment option. The net proceeds of the underwriter's over-allotment option totaled \$2,160,000.

Each share of Series A and Series B preferred stock was originally convertible into (and carried voting rights equal to) one share of common stock. In October 1995, pursuant to the terms of the Series B preferred stock agreement and in contemplation of the IPO, the board of directors and stockholders approved a change in the conversion ratio of Series A and Series B preferred stock providing that in the event of an IPO of common stock on or before March 31, 1996, each share of Series A and Series B preferred stock would automatically be converted into 1.4310444107 and 1.8993878755 shares of common stock, respectively (the "IPO Conversion Ratio"). The IPO Conversion Ratio was not higher than the ratio which otherwise would have applied in an IPO during this period. In conjunction with the IPO in January 1996 all outstanding shares of Series A and Series B preferred stock were converted into 5,521,140 shares of common stock.

The holders of the Series A and Series B preferred stock received common stock in January 1996 with an aggregate fair value (at the \$5 per unit value of the IPO) which exceeds by approximately \$5,400,000 the cost of their initial investment in the Series A and Series B preferred stock. This amount has been deemed to be the equivalent of a preferred stock dividend. The Company recorded the deemed dividend at the time of conversion by offsetting charges and credits to additional paid in capital, without any effect on total stockholders' equity (net capital deficiency). There was no effect on 1995 or 1996 net loss or pro forma net

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TITAN PHARMACEUTICALS, INC.
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loss per share from the mandatory conversion. However, the amount increased the loss allocable to common stock, in the calculation of net loss per share in 1996.

In January 1996, the Company repaid the \$3,750,000 principal and accrued interest of \$105,083 related to a bridge financing with a portion of the proceeds of the IPO. The Company also repaid \$1,500,000 of principal and accrued interest of \$87,898 of notes issued by Ingenex in a bridge financing.

PRIVATE PLACEMENT

In July and August 1996, the Company completed a private placement (the "Private Placement") of 1,536,000 units, each unit consisting of one share of

common stock and one redeemable Class A warrant, for total gross proceeds of \$16,000,000. After deducting placement agent fees and other expenses of the private placement, the net proceeds to the Company were \$13,739,628.

WARRANTS

At December 31, 1996, warrants to purchase 451,883 shares of common stock at a weighted average price of \$4.44 per share were outstanding. Such warrants expire in November 1998 and January 2001.

The warrants issued during 1996 in connection with the IPO and the Private Placement entitle the holder to purchase one share of common stock at an exercise price of \$6.20, subject to adjustment in certain circumstances, at any time for a period of five years. Commencing January 18, 1997, the warrants are subject to redemption by the Company at \$0.05 per warrant on 30 days' prior written notice if the closing bid price of the Company's common stock averages in excess of \$9.10 per share for 30 consecutive trading days ending within 15 days of the date of notice of redemption. The Company has reserved a sufficient number of authorized but unissued shares of common stock for issuance upon exercise of the warrants. As of December 31, 1996, 59,014 of these warrants had been exercised.

STOCK OPTION PLANS

Under the terms of the Company's amended and restated stock option plan (the "1993 Option Plan"), incentive stock options may be granted to employees, and nonstatutory stock options may be granted to employees, directors and consultants of the Company and Operating Companies. A total of 558,073 shares of common stock have been reserved and authorized for issuance under the 1993 Option Plan.

Options granted under the 1993 Option Plan expire no later than ten years from the date of grant, except when the grantee is a 10% shareholder of the Company or an Operating Company, in which case the maximum term is five years from the date of grant. The exercise price of incentive stock options, nonstatutory stock options and options granted to 10% shareholders of the Company (or the Operating Companies), shall be at least 100%, 85% and 110%, respectively, of the fair market value of the stock subject to the option on the grant date. The options are exercisable immediately upon grant, however, the shares issuable upon exercise of the options are subject to repurchase by the Company. Such repurchase rights will lapse over a period of up to five years from the date of grant. At December 31, 1996, 183,654 shares of common stock underlying the options would be subject to repurchase by the Company should such options be exercised and the optionees' employment or consulting relationship terminate. No further options will be granted under the 1993 Option Plan.

In November 1995, the Company adopted the 1995 Stock Option Plan (the "1995 Option Plan"). A total of 1,300,000 shares of common stock are reserved and authorized for issuance under the 1995 Option Plan. Options granted under the 1995 Option Plan expire no later than ten years from the date of grant, except when the grantee is a 10% shareholder of the Company or an Operating Company, in which case the maximum term is five years from the date of grant. The exercise price of incentive stock options, nonstatutory stock options and options granted to 10% shareholders of the Company (or the Operating Companies), shall be at least 100%, 85% and 110%, respectively, of the fair market value of the stock subject to the option on the grant date. The provisions of the 1995 Option Plan provide for the automatic grant of nonqualified stock options to purchase shares of common stock to directors of the Company who are not

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TITAN PHARMACEUTICALS, INC.
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principal (10%) stockholders of the Company ("Eligible Directors"). Each Eligible Director of the Company was granted an option to purchase 10,000 shares of common stock upon the effective date of the IPO.

Activity under the 1993 and 1995 Option Plans is summarized below:

<TABLE>
<CAPTION>

	OUTSTANDING OPTIONS			
	SHARES AVAILABLE FOR GRANT	NUMBER OF SHARES	PRICE PER SHARE	WEIGHTED AVG. EXERCISE PRICE
<S>	<C>	<C>	<C>	<C>
Balance at December 31, 1994	268,880	289,193	\$0.29 - \$1.17	\$0.78
Options granted	(218,127)	218,127	\$0.59 - \$1.35	\$1.34
Options canceled	157,243	(157,243)	\$0.29 - \$1.35	\$0.97
	-----	-----		
Balance at December 31, 1995	207,996	350,077	\$0.29 - \$1.35	\$1.04
Increase in shares reserved	1,080,118	--	--	--

Options granted	(1,080,635)	1,080,635	\$5.00 - \$11.75	\$9.93
Options exercised	--	(16,520)	\$0.29 - \$1.35	\$0.62
Options canceled	11,886	(11,886)	\$0.59 - \$1.35	\$0.66
	-----	-----		
Balance at December 31, 1996	219,365	1,402,306	\$0.59 - \$11.75	\$7.90
	-----	-----		

</TABLE>

Of the options on 350,077 shares outstanding at December 31, 1995, options on 73,499 shares were exercisable at that date. The options outstanding at December 31, 1996 have been segregated into three ranges for additional disclosure as follows:

<TABLE>
<CAPTION>

RANGE OF EXERCISE PRICES	OPTIONS OUTSTANDING	OPTIONS OUTSTANDING		OPTIONS EXERCISABLE	
		WEIGHTED AVG. REMAINING CONTRACTUAL LIFE	WEIGHTED AVG. EXERCISE PRICE	OPTIONS CURRENTLY EXERCISABLE	WEIGHTED AVG. EXERCISE PRICE
<S>	<C>	<C>	<C>	<C>	<C>
\$ 0.59 - \$ 1.35	321,671	8.18	\$ 1.08	138,017	\$ 0.89
\$ 5.00 - \$ 7.13	245,500	9.18	\$ 6.48	43,957	\$ 6.29
\$ 10.75 - \$ 11.75	835,135	9.62	\$ 10.94	80,370	\$ 10.75
	-----			-----	
	1,402,306	9.21	\$ 7.90	262,344	\$ 4.82
	-----			-----	

</TABLE>

In addition, the Operating Companies, with the exception of ProNeura, each have a stock option plan under which options to purchase common stock of the Operating Companies have been and may be granted.

STOCK COMPENSATION

The Company has elected to follow APB 25 and related interpretations in accounting for its stock options because, as discussed below, the alternative fair value accounting provided for under SFAS 123 requires use of option valuation models that were not developed for use in valuing employee stock options. Under APB 25, because the exercise price of the Company's employee stock options equals the market price of the underlying stock on the date of the grant, no compensation expense is recognized.

Pro forma information regarding the net income and earnings per share is required by SFAS 123, and has been determined as if the Company had accounted for its employee stock options granted subsequent to 1994 under the fair value method of that Statement. The fair value for these options was estimated at the date of grant using a Black-Scholes option pricing model for the multiple option approach with the following assumptions for 1996 and 1995: weighted-average volatility factor of 0.6; no expected dividend payments; weighted-average risk-free interest rates in effect of 6.38 and 6.00, respectively; and a weighted-average expected life of 4.77 and 4.41, respectively.

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TITAN PHARMACEUTICALS, INC.
(A DEVELOPMENT STAGE COMPANY)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options which have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions including the expected stock price volatility. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of the Company's employee stock options.

Based upon the above methodology, the weighted-average fair value of options granted during the years ended December 31, 1995 and 1996 was \$0.73 and \$5.71, respectively.

For purposes of pro forma disclosures, the estimated fair value of the options is amortized to pro forma net loss over the options' vesting period. The Company's pro forma information is as follows:

<TABLE>
<CAPTION>

DECEMBER 31,

	1995 -----	1996 -----
<S>	<C>	<C>
Consolidated pro forma net loss	\$(11,852,518)	\$(14,801,845)
Consolidated pro forma loss per share	\$ (5.10)	\$ (1.85)

The consolidated pro forma net loss calculated above includes the estimated fair value of the options granted by each of the operating companies in 1995 and 1996, calculated on substantially equivalent assumptions.

Because SFAS 123 is applicable only to options granted subsequent to 1994, its pro forma effect will not be fully reflected until 1998.

SHARES RESERVED FOR FUTURE ISSUANCE

As of December 31, 1996, shares of common stock reserved by the Company for future issuance consisted of the following:

Warrants issued in connection with related party debt	33,682
Ingenex Technology Financing warrants	119,770
Bridge warrants	1,875,000
IPO and Private Placement warrants	5,156,986
Placement agent warrants	451,883
Unit purchase options	1,254,400
Stock options	1,621,671

Total	10,513,392

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TITAN PHARMACEUTICALS, INC.
(A DEVELOPMENT STAGE COMPANY)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

8. MINORITY INTEREST

The \$1,241,032 received by Ingenex upon the issuance of Series B convertible preferred stock has been classified as minority interest in the consolidated balance sheet and 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 has been apportioned between minority interest and additional paid-in capital in the consolidated balance sheets. Losses applicable to the minority interest holdings of the Operating Companies' common stock have reduced that interest.

9. INCOME TAXES

The Company and the Operating Companies have not elected to file a consolidated federal tax return.

As of December 31, 1996, the Company had federal net operating loss carryforwards of approximately \$33,300,000, of which approximately \$29,900,000 is attributable to the Operating Companies (excluding Ansan). The net operating loss carryforwards will expire at various dates beginning in 2008 through 2011, if not utilized.

Utilization of the net operating losses may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986. The annual limitation may result in the expiration of net operating losses before utilization.

As of December 31, 1996, the Company had deferred tax assets of approximately \$14,400,000, of which approximately \$13,100,000 is attributable to the Operating Companies. As of December 31, 1995 and 1996, none of the deferred tax assets were attributable to Ansan. The net deferred tax asset has been fully offset by a valuation allowance. The net valuation allowance increased by approximately \$2,400,000 during 1995.

Significant components of the Company's deferred tax assets for federal income taxes as of December 31, 1995 and 1996 are as follows:

Deferred tax assets:

DECEMBER 31,	
1995	1996
-----	-----

Net operating loss carryforwards	\$ 8,700,000	\$ 12,300,000
Research credit carryforwards	800,000	900,000
Capitalized research and development	600,000	800,000
Other - net	300,000	400,000
	-----	-----
Net deferred tax assets	10,400,000	14,400,000
Valuation allowance	(10,400,000)	(14,400,000)
	-----	-----
Net deferred tax assets	\$ --	\$ --
	-----	-----

10. RELATED PARTY TRANSACTIONS

In connection with the Company's private placement offering of Series B preferred stock in 1995, Paramount Capital, Inc. ("Paramount"), a related party, also acted as the placement agent. The Company made a cash payment of \$148,500 to Paramount out of the private placement proceeds as compensation and expense allowance related to the offering. This amount was offset against the proceeds from the offering. Additionally, Paramount received warrants to purchase 24,402 shares of Series B preferred stock (see Note 7).

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TITAN PHARMACEUTICALS, INC.
(A DEVELOPMENT STAGE COMPANY)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

11. SUBSEQUENT EVENTS

In January 1997, the Company entered into an exclusive license agreement with Hoechst Marion Roussel, Inc. ("HMR"). The license agreement gives the Company a worldwide license to HMR's patent rights and know-how related to a chemical compound known as IloperidoneTM, including the ability to develop, use, sublicense, manufacture and sell products and processes claimed in the patent rights. Under the agreement, the Company will pay HMR a license fee of \$4 million, \$2 million of which was paid in January 1997 and \$2 million of which is due in July 1997. Also in January 1997, the Company issued 594,595 shares of common stock with a fair value of \$5.5 million. As a result of this transaction, the Company incurred a charge for acquired in-process research and development of \$9.5 million. During the period from September 1997 through January 1999, the Company shall be obligated to pay to HMR the difference between \$5.5 million and the net proceeds, if any, received by HMR upon sale of the above mentioned common stock. In addition, the Company is required to make additional benchmark payments as specific milestones are met. Upon commercialization of the product, the license agreement provides that the Company will pay royalties based on net sales.

UNAUDITED

The Company's current stock price is significantly depressed, indicating a potential liability of \$3.6 million related to the HMR shares.

In March 1997, Titan and Ansan entered into an agreement for financing pursuant to which Titan advanced Ansan \$1,000,000 in return for a debenture (the "Debenture") which is convertible at any time prior to June 21, 1997 into 333,333 shares of common stock. The Debenture bears interest at prime plus 2% and is due in March 1998. In connection with the issuance of the Debenture, Ansan granted Titan an option (the "First Option") to acquire on additional 333,333 shares of Ansan common stock for an aggregate purchase price of \$1,000,000. The First Option expires on June 21, 1997.

In the event the Debenture is converted to equity, Ansan will grant Titan two additional options (respectively, the "Second Option" and the "Third Option"). The Second Option will be exercisable for two years from the date of grant to purchase up to 1,630,000 shares of Ansan common stock at an exercise price of \$3.75 per share. The Third Option will be exercisable through August 8, 2000 to purchase up to 500,000 additional shares at an exercise price of \$6.50 per share. Titan will be obligated to exercise the Second Option for the purchase of specified numbers of shares in the event Titan's outstanding Class A Warrants are exercised, provided Ansan has not completed public or private equity financings resulting in specified gross proceeds prior to the date such a purchase obligation arises.

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SIGNATURES

In accordance with Section 13 or 15(d) of the Exchange Act, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TITAN PHARMACEUTICALS, INC.

Date: March 26, 1997

By: /s/ Louis R. Bucalo

Louis R. Bucalo, M.D. President and
Chief Executive Officer

In accordance with the Exchange Act, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

/s/ Louis R. Bucalo ----- Louis R. Bucalo, M.D.	President, Chief Executive Officer and Director (Principal Executive Officer)	March 26, 1997
/s/ Robert E. Farrell ----- Robert E. Farrell	Executive Vice President Chief Financial Officer (Principal Financial and Accounting Officer)	March 26, 1997
/s/ Lindsay A. Rosenwald ----- Lindsay A. Rosenwald, M.D.	Director	March 26, 1997
/s/ Michael K. Hsu ----- Michael K. Hsu	Director	March 26, 1997
/s/ Hubert Huckel ----- Hubert Huckel, M.D.	Director	March 26, 1997
----- Marvin Jaffe, M.D.	Director	
/s/ Konrad M. Weis ----- Konrad M. Weis	Director	March 26, 1997
/s/ Kenneth J. Widder ----- Kenneth J. Widder, M.D.	Director	March 26, 1997
/s/ Ernst-Gunter Afting ----- Ernst-Gunter Afting, M.D.	Director	March 26, 1997

Portions of this Exhibit have been omitted pursuant to a request for confidential treatment. The omitted portions, marked by an * and [], have been separately filed with the Commission.

=====

WORLDWIDE LICENSE AGREEMENT -

ILOPERIDONE

BY AND BETWEEN

HOECHST MARION ROUSSEL, INC.

AND

TITAN PHARMACEUTICALS, INC.

Effective December 31, 1996

=====

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Worldwide License Agreement - Iloperidone
Hoechst Marion Roussel, Inc. - Titan Pharmaceuticals, Inc.

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APPENDIX

- A Patents and Patent Applications (per Section 1.12)
- B Major Metabolites (per Section 1.5)
- C Documents to be Delivered by HMRI to TITAN (per Section 3.1(a))

- D SEC Registration Rights Granted by TITAN to HMRI (per Section 3.3)
- E HMRI Documents and Development Activities During Transition Period (per Section 6.1)
- F HMRI Development Activity to Extend Beyond Transition Period (per Section 6.1)
- G Special Countries in TERRITORIES Regarding HMRI's PATENT Protection (per Section 8.2)

-i-

THIS LICENSE AGREEMENT, effective as of the 31st day of December, 1996, between HOECHST MARION ROUSSEL, INC., a corporation organized under the laws of the State of Delaware with offices at Route 202-206, P.O. Box 6800, Bridgewater, NJ 08807-0800 (hereinafter "HMRI") and TITAN PHARMACEUTICALS, INC., a corporation organized under the laws of the State of Delaware and having its principal office at 400 Oyster Point Blvd., Suite 505, South San Francisco, CA 94080 (hereinafter "TITAN"),

WITNESSETH THAT:

WHEREAS, HMRI is the owner of all right, title and interest in certain patents and patent applications, identified in Appendix A hereto, and know-how relating to a compound known as Iloperidone; and

WHEREAS, TITAN desires to obtain certain exclusive worldwide licenses from HMRI under the aforesaid patents and patent applications and know-how, and HMRI, is willing to grant to TITAN such licenses; NOW, THEREFORE, in consideration of the covenants and obligations expressed herein, and intending to be legally bound, the parties agree as follows:

1. DEFINITIONS

1.1 "HMRI" shall mean HOECHST MARION ROUSSEL, INC.

1.2 "TITAN" shall mean TITAN PHARMACEUTICALS, INC.

1.3 "AFFILIATE" shall mean any corporation, firm, partnership or other entity, hether DE JURE or DE FACTO, which directly or indirectly owns, is owned by or is under common ownership with a party to this License Agreement to the extent of more than fifty percent (50%) of the equity (or such lesser percentage which is the maximum allowed to be owned by a foreign corporation in a particular jurisdiction) having the power to direct the affairs of the entity and any person, firm, partnership, corporation or other entity actually controlled by, controlling or under common control with a party to this License Agreement.

1.4 "COMPETITIVE INDUSTRY STANDARD LEVEL" shall mean PRODUCT shall be marketed by or on behalf of TITAN, its AFFILIATES or SUBLICENSEES in the countries of the TERRITORY where PATENTS are issued and enforced with at least the same diligence that TITAN would use in marketing its own products in such countries, in a manner consistent with the effort devoted by the pharmaceutical industry to products having the same or similar potential value of PRODUCT in those countries when PRODUCT is launched.

1.5 "COMPOUND" shall mean the chemical compound known as Iloperidone, whose more specific chemical name is 1-[4-[3-[4-(6-fluoro-1,2-benzisoxazol-3-yl)-1-piperidinyl]propoxy]-3-methoxyphenyl]ethanone, including any salts, hydrates, solvates, and/or stereoisomers thereof, and only the metabolites listed in Appendix B hereto, including any salts, hydrates, solvates and/or stereoisomers of such metabolites.

1.6 "EEA" shall mean the European Economic Area, which consists of the EUROPEAN UNION and Iceland, Lichtenstein and Norway.

1.7 "EUROPEAN UNION" shall mean the member states of the European Union, as may exist from time to time, which as of the date hereof include Austria, Belgium, Denmark,

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Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

1.8 "EXCLUSIVE" shall have the meaning specified in Section 2.1(a) hereof.

1.9 "FDA" shall mean the United States Food and Drug Administration.

1.10 "FD&C ACT" shall mean the Federal Food, Drug and Cosmetic Act (21 U.S.C. 301ff), as amended from time to time.

1.11 "FIELD" shall mean the treatment in humans of psychiatric disorders, psychotic disorders and analgesia.

1.12 "IND" shall mean an Investigational New Drug Application.

1.13 "KNOW-HOW" shall mean all technical information and know-how presently developed and owned or controlled by HMRI and its AFFILIATES, or developed and owned or controlled by HMRI and its AFFILIATES after the date hereof and included within this definition of "KNOW-HOW" by operation of Section 2.1(c) hereof, which relates to COMPOUND or PRODUCT in the FIELD and which constitutes a proprietary "trade secret" or other valid intellectual property right under U.S. or other applicable law which is substantial, secret and identifiable, including, without limitation, all biological, chemical, pharmacological, toxicological, clinical, regulatory, analytical, quality control and manufacturing data and any other information (whether technical or commercial) relating to COMPOUND or PRODUCT that may be useful for the development, regulatory approval, manufacture and commercialization of COMPOUND or PRODUCT.

1.14 "NDA" shall mean any and all applications (New Drug Applications) submitted to the FDA under Sections 505, 507 or 512 of the FD&C ACT and applicable regulations

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related to PRODUCT, including without limitation, full NDAs, "paper" NDAs and abbreviated NDAs (ANDAs) and all amendments and supplements thereto or equivalent applications in the EUROPEAN UNION or JAPAN.

1.15 "NET SALES" shall mean the gross revenues from the first sales of COMPOUND or PRODUCT in the TERRITORY by a party, its AFFILIATES and/or its SUBLICENSEES to THIRD PARTIES, less deductions for:

(a) standard transportation charges, including insurance, consistent with custom in the industry;

(b) import, export, sales, use and excise taxes, tariffs and duties paid or allowed by a selling party and any other governmental charges imposed upon the production, importation, use or sale of COMPOUND OR PRODUCT;

(c) normal and customary quantity discounts (including volume or formulary or other positioning discounts paid or credited to any wholesaler, purchaser or THIRD PARTY payor or other contractee as a result of a contractual arrangement specific to PRODUCT), cash discounts (including discounts for prompt payment), and customary trade promotional allowances and credits, in the ordinary course of a party's, its AFFILIATES' or its SUBLICENSEES' business;

(d) discounts (including retroactive price reductions or a statutorily required reimbursement) mandated by or granted in response to state, provincial or federal law or regulation;

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(e) allowances or credits to customers on account of recalls, rejection or return (including for spoiled, damaged and outdated goods) in the ordinary course of business,

(f) rebates paid or credited to any government or agency or any THIRD PARTY payor, administrator or contractee, and

(g) wholesaler charge-backs allowed and taken in amounts customary in the trade.

The computation of NET SALES shall not include sales between or among a party and its AFFILIATES or SUBLICENSEES, except where such AFFILIATES or SUBLICENSEES are end users. For purposes of this License Agreement, sales of COMPOUND or PRODUCT to independent distributors, wholesalers or other parties who purchase and take title to COMPOUND or PRODUCT are considered to be sales to THIRD PARTIES. If COMPOUND or PRODUCT is sold through intermediaries such as agents or co-promoters who do not purchase and take title to COMPOUND or PRODUCT, royalties shall be due on NET SALES to THIRD PARTIES who purchase COMPOUND or PRODUCT through such intermediaries.

1.16 "PATENTS" shall mean all patents and patent applications set forth in Appendix A, including continuations, continuations-in-part, divisions, patents of addition, reissues, re-examinations, renewals or extensions thereof, along with supplementary protection certificates and other administrative protection of any kind in the TERRITORY owned or controlled by HMRI or its AFFILIATES which claim COMPOUND or PRODUCT, or use, formulations or manufacture thereof, for use in the FIELD, but not any other compound or use outside of the FIELD disclosed or claimed in those patents or patent applications. Any patent relating to COMPOUND or

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PRODUCT for use in the FIELD which is issued during the term of this License Agreement in any country of the TERRITORY shall automatically be deemed as of the date of such issuance to be included in PATENT, as defined hereunder.

1.17 "PRODUCT" shall mean any bulk or finished pharmaceutical composition containing COMPOUND as a pharmaceutically active ingredient (either alone or in combination with one or more other pharmaceutically active ingredients), for use in the FIELD.

1.18 "SEC" shall mean the United States Securities and Exchange Commission.

1.19 "SUBLICENSEE" shall mean a THIRD PARTY (as defined below) to whom a party sublicenses rights to manufacture and sell (or have manufactured and sold) COMPOUND under PATENTS, but shall not include any THIRD PARTIES to whom rights to manufacture COMPOUND have not been granted. Unless such party grants to such THIRD PARTY the right to manufacture COMPOUND, the following THIRD PARTIES shall not be considered SUBLICENSEES hereunder: agents, distributors, wholesalers, subcontractors, co-marketers, co-promoters, partners or joint venturers. SUBLICENSEES shall not include compulsory licensees as described in Section 4.1(a).

1.20 "TERRITORY" shall mean all countries and territories of the world provided that any country(ies) in which this License Agreement is terminated shall be removed from the scope of this definition.

1.21 "THIRD PARTY" shall mean any party other than a party to this License Agreement or an AFFILIATE thereof.

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2. GRANT

2.1(a) HMRI hereby grants to TITAN an EXCLUSIVE license in the FIELD under the PATENTS (to the extent, but only to the extent, that such patents or patent applications claim COMPOUND or PRODUCT or the manufacture, formulation, or use thereof) and KNOW-HOW to develop, have developed, make, have made, use, import, sell, offer for sale and have sold COMPOUND and PRODUCT in the TERRITORY, subject to the terms and conditions of this License Agreement. The foregoing license shall include the right to sublicense, but only upon HMRI's prior written consent, which consent shall not be unreasonably withheld. Any such sublicense(s) shall impose upon SUBLICENSEE(S) substantially the same terms and conditions as TITAN assumes in this License Agreement, except no such sublicense(s) shall be required to contain obligations on the part of the SUBLICENSEE regarding payment of an upfront license fee, milestone payments or the same or similar royalty rates. As used in this License Agreement, the term "EXCLUSIVE" shall mean neither HMRI nor its AFFILIATES shall grant any other license to, nor themselves exploit, the PATENTS and KNOW-HOW with respect to COMPOUND and PRODUCT in the FIELD (unless otherwise specified herein) and be limited as follows:

(i) With respect to all geographic areas in the TERRITORY outside of the EEA, such license shall be exclusive for the duration and validity of the intellectual property rights constituting the PATENTS and/or KNOW-HOW.

(ii) With respect to all geographic areas in the TERRITORY within the EEA, such license shall be exclusive for the following time periods:

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A. For each of the countries within the EEA where only PATENTS (and not KNOW-HOW) exist and are licensed to TITAN hereunder, the period of exclusivity for each such country shall be limited to the duration of the relevant PATENTS in such

country, PROVIDED that "PATENTS" for purposes of the interpretation of this paragraph shall be limited to patents existing, and patents issuing from patent applications existing, and patents issuing from patent applications covering inventions existing as of the date of this License Agreement;

B. For each of the countries within the EEA where PATENTS AND KNOW-HOW exist and are licensed to TITAN hereunder, the period of exclusivity for each such country shall be limited to the duration of the relevant PATENTS in such country, PROVIDED that "PATENTS" for purposes of the interpretation of this paragraph shall be limited to patents existing, and patents issuing from patent applications existing, as of the date of this License Agreement and, PROVIDED, FURTHER, that if the duration of such PATENTS is less than ten (10) years from the date of first marketing of COMPOUND or PRODUCT in the EEA but the KNOW-HOW continues to be licensed hereunder, the duration of exclusivity shall be for ten (10) years from the date of first marketing of COMPOUND or PRODUCT in the EEA; and

C. For each of the countries within the EEA where KNOW-HOW (and not PATENTS) exists and is licensed to TITAN

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hereunder, the period of exclusivity for each such country shall be limited to ten (10) years from the date of first marketing of COMPOUND or PRODUCT in the EEA;

Thereafter, such license within the EEA shall be on a non-exclusive basis.

(iii) Notwithstanding the provisions of clause 2.1(a)(ii), above, in the event that the TERRITORY (for whatever reason) does not include all countries within the EEA, this License Agreement shall be deemed to be amended in a reciprocal fashion to comply with applicable competition law requirements, while preserving the EXCLUSIVE rights of the parties hereto to the extent possible.

(iv) For all purposes, such exclusivity shall be subject to Section 2.1(c) hereof.

(v) HMRI and its AFFILIATES and licensed THIRD PARTIES shall be entitled to utilize the PATENTS and KNOW-HOW in the FIELD within the TERRITORY for the development and manufacture of COMPOUND and PRODUCT for marketing, distribution and sale outside of the TERRITORY (where TITAN's rights have been terminated).

The duration of the license granted by this Section 2.1(a) shall be limited to the duration, on a country-by-country basis, of the intellectual property rights which comprise the PATENTS and KNOW-HOW with respect to a relevant country, PROVIDED that the termination of any portion of any license shall be without prejudice to the requirement of TITAN to pay royalties pursuant to the terms of this License Agreement. Notwithstanding the foregoing

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but subject to Sections 3.5 and 3.6 hereof, HMRI acknowledges and agrees that TITAN shall as a matter of law have the right to continue to use on a royalty-free, non-exclusive basis the information which constitutes the PATENTS and KNOW-HOW on a country-by-country basis in the TERRITORY for the FIELD after the PATENTS expire or cease to be valid or enforceable and/or KNOW-HOW has entered into the public domain.

(b) Subject to TITAN's right of first negotiation under Section 5.6 hereof with respect to uses or indications outside the FIELD, HMRI shall have the right for either HMRI, its AFFILIATES or SUBLICENSEES to develop, have developed, make, have made, use, import, sell, offer for sale and have sold COMPOUND and PRODUCT for uses outside the FIELD.

(c) HMRI also shall have the right to make and use COMPOUND or PRODUCT for the use in the FIELD limited solely to further study, investigation or experimentation purposes to further understand the category of compounds in the FIELD, how they work and their comparison to other compounds. The reservations stated in this provision shall be understood by the parties to comprise independent work by HMRI, its AFFILIATES, SUBLICENSEES or collaborators (who are subject to obligations of non-use and nondisclosure with respect thereto), PROVIDED that in the

event that the results of such work would be relevant to COMPOUND or PRODUCTS with respect to the FIELD and could appropriately be included within the PATENTS and KNOW-HOW licensed hereunder, and if HMRI has the legal right to do so, all as determined in the reasonable discretion of HMRI, then HMRI shall offer such results to TITAN, and TITAN shall have the option of accepting such results after reasonable review (not to exceed sixty (60) days), whereupon

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if accepted in writing by TITAN such results shall be included, as appropriate, within the PATENTS and KNOW-HOW licensed hereunder, and if declined by TITAN such results may be used, assigned or licensed by HMRI subject to provisions of the License Agreement. It is mutually understood by the parties that independent experimental use of COMPOUND or PRODUCT or of results shall not be used in any way that could be damaging or otherwise detrimental to COMPOUND or PRODUCT or their development, manufacture or commercialization by TITAN or HMRI or their respective AFFILIATES or SUBLICENSEES hereunder. Within twenty (20) days of HMRI's request, TITAN shall provide to HMRI free of charge reasonable quantities of COMPOUND or PRODUCT for such experimental use in laboratory or animal studies. This does not prevent HMRI from making COMPOUND or PRODUCT for experimental use only in laboratory or animal studies.

(d) HMRI grants to TITAN a non-exclusive, worldwide license to make or use any analytical reference standards, intermediate or metabolite of COMPOUND or PRODUCT not listed in Appendix B hereto which may be claimed in PATENTS limited solely to making or using the COMPOUND or PRODUCT. The foregoing license shall include the right to sublicense, but only upon HMRI's prior written consent, which consent shall not be unreasonably withheld. Any such sublicense shall impose upon SUBLICENSEE(s) substantially the same terms and conditions as TITAN assumes in this License Agreement, except no such sublicense(s) shall be required to contain obligations on the part of the SUBLICENSEE regarding payment of an upfront license fee, milestone payments or the same or similar royalty rates.

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The information below marked by * and [] has been omitted pursuant to a request for confidential treatment. The omitted portion has been separately filed with the Commission.

2.2 TITAN shall promote, market and sell PRODUCT under a registered TITAN trademark(s) approved by HMRI, which approval shall not be unreasonably withheld. TITAN shall be responsible for the selection and registration of such trademark(s) in all countries of the TERRITORY at its own cost. In the event the license granted hereunder is terminated in a particular country, and HMRI or its designee(s) exercises the right to promote, market or sell PRODUCT in such country then at HMRI's option (i) TITAN shall grant HMRI or its designee(s) a trademark license at a royalty to be negotiated in good faith [*] at such time to use such trademark in connection with marketing PRODUCT in such country, or (ii) HMRI or its designee(s) shall select and register at HMRI's cost a trademark of its own in connection with the marketing of PRODUCT in such country, provided such HMRI trademark is not in any way confusingly similar to TITAN'S trademark. HMRI shall use an HMRI trademark (rather than a TITAN trademark) in promoting, marketing or selling PRODUCT in any country that is a member of a free trade union or other economic grouping (e.g., the EUROPEAN UNION, EEA, NAFTA, ASEAN and ANDEAN PACT countries) where TITAN is promoting, marketing or selling PRODUCT under a TITAN trademark.

2.3 If TITAN notifies HMRI in writing, that TITAN (and/or its AFFILIATE(S)) is not willing or does not have the capability itself or cannot enter into a sublicense or other agreement (providing the necessary expertise and resources) in country(ies) outside those covered by NAFTA, EUROPEAN UNION and Japan to: (i) develop COMPOUND or PRODUCT (as the case may warrant), and (ii) manufacture and/or market COMPOUND or PRODUCT (as the case may warrant) at a COMPETITIVE INDUSTRY STANDARD LEVEL by the date of PRODUCT

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approval in such country(ies), then HMRI shall have the right to terminate the license granted by this License Agreement but only with respect to such country(ies), unless the parties agree in writing to extend such time frame.

2.4 If PRODUCT is not launched in each of the United States, France and Germany, respectively, at a COMPETITIVE INDUSTRY STANDARD LEVEL by TITAN, its AFFILIATE'S and/or SUBLICENSEE within six (6) months after the date of receiving the approvals necessary to commercialize PRODUCT in each of the United

States, Germany and France, respectively, HMRI and TITAN shall review the progress of launch efforts, it being understood the parties, at the request of either party, may review the progress of launch efforts prior to the end of such six (6) month period. TITAN shall keep HMRI informed on a regular basis of the status of its launch efforts after receiving the approvals necessary to commercialize PRODUCT in each of the United States, Germany and France, respectively, until such time that launch is achieved in the United States, Germany or France. If launch in each of the United States, France or Germany, respectively, is not achieved within one (1) year after the date of receiving the approvals necessary to commercialize PRODUCT in such country(ies) (circumstances shall not include events of force majeure as defined in Section 13), or in any event within two (2) years after PRODUCT approval then the license granted by this License Agreement shall terminate, but only with respect to the particular country where launch was not achieved within such one (1) year or two (2) year time frame, as the case may be, unless the parties agree in writing to extend such time frame.

2.5 If an NDA or equivalent ex-U.S. regulatory approval in the EUROPEAN UNION (Marketing Authorization Application via the Centralized Procedure) for PRODUCT is not obtained within three (3) years of TITAN's or its AFFILIATE's or SUBLICENSEE's filing of an NDA or such other equivalent ex-US filing, and such failure is solely due to circumstances within

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TITAN's reasonable control, then the license granted by this License Agreement shall terminate, but only with respect to the United States or the EUROPEAN UNION where such approval was not obtained, unless the parties agree in writing to extend such time frame. If, however, the parties determine that such failure is due to circumstances beyond the reasonable control of TITAN (including without limitation delays on the part of the regulatory agencies), the three (3) year period shall be extended to take into account such circumstances, the duration of any such extension to be mutually agreed.

2.6 Subject to the provisions of Section 2.6(d), HMRI shall not be obligated to refund any upfront license fees and milestone payments paid to HMRI with respect to any country(ies) which cease to be included within the TERRITORY, and in the event that (i) HMRI, its AFFILIATE(S) or SUBLICENSEE(S) elects to commercialize PRODUCT or COMPOUND in such country(ies) AND (ii) TITAN, its AFFILIATE(S) or SUBLICENSEE(S) has an NDA filing in the United States or an equivalent filing in the EUROPEAN UNION, then in consideration for use of any IND, NDA or other governmental approval or associated developmental work held or owned by TITAN related to COMPOUND or PRODUCT:

(a) At HMRI's request, and subject to Sections 6.3 and 11.5 hereof, TITAN shall license or otherwise make available under applicable law the benefit of such approvals or work to HMRI or an AFFILIATE or THIRD PARTY designated by HMRI who shall thereafter have the rights to develop, register, manufacture, market and sell COMPOUND and PRODUCT in such country(ies) utilizing such approvals or work, and HMRI shall pay to TITAN a royalty to be negotiated in good faith at the time HMRI

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exercises such option, on NET SALES in such country to equitably recognize the value added by TITAN to COMPOUND and/or PRODUCT through its development efforts. Such royalty shall not be less than [*] and no greater than [*] on NET SALES. Upon expiration of PATENT in such country, only the royalty paid to TITAN for HMRI's use of the TITAN trademark shall be paid to TITAN for a time period to be negotiated at such time. If a trademark license has not been granted to HMRI in such country, no royalty shall be paid to TITAN upon expiration of PATENT.

(b) HMRI shall share with TITAN, on a basis to be negotiated in good faith at that time, a portion of any upfront license fees, milestone payments or other payments such as prepaid royalties received from a THIRD PARTY in connection with the exercise of such option only. If TITAN has not paid to HMRI the upfront license fee and all of the milestone payments provided for in Sections 3.1(a) through (c), then TITAN's share of the amount shall be multiplied by a fraction, the numerator of which is equal to the total of the payments that have been made by TITAN to HMRI under Sections 3.1(a) through (c), and the denominator of which is equal to the total of the payments that TITAN otherwise would have been required to pay

to HMRI under Sections 3.1(a) through (c) had the license not been terminated.

(c) Notwithstanding anything contained herein to the contrary, HMRI shall not be required to pay to TITAN a royalty on sales of COMPOUND or PRODUCT that exceeds in the aggregate [*], including any royalty payments for a license under the TITAN trademark that HMRI may be required to pay to TITAN under Section 2.2.

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(d) If the circumstances leading up to the termination of the License Agreement pursuant to Section 2.5 are due to any misrepresentations, omissions (of information owned or controlled by HMRI or its AFFILIATES as of the date hereof) or falsifications with respect to such KNOW-HOW, information or data or fraud by HMRI or its AFFILIATES, then HMRI shall repay in full to TITAN, within ninety (90) days of such termination, the upfront license fee and milestone payments HMRI had received from TITAN up to the date of such termination (including in the form of TITAN common stock).

2.7 In the event TITAN or a SUBLICENSEE intends to seek a co-promotion or co-marketing partner for PRODUCT in the United States or if TITAN intends to provide exclusive rights to a THIRD PARTY to market PRODUCT in the United States, TITAN shall notify HMRI thereof in writing and HMRI shall have a right of first negotiation with TITAN or the SUBLICENSEE on such a collaboration. If HMRI exercises its right of first negotiation, then HMRI and TITAN or the SUBLICENSEE shall negotiate in good faith for a period of ninety (90) days from the date of notification by TITAN to HMRI. If the negotiating parties are unable to enter into a separate definitive written agreement regarding such collaboration by the end of such ninety (90) day period, TITAN or the SUBLICENSEE shall be free to enter into a collaboration with any THIRD PARTY subject to all other terms of this License Agreement and shall have no further obligation to negotiate with HMRI.

3. PAYMENTS AND ROYALTIES

3.1 As consideration for the licenses granted to TITAN by HMRI under this License Agreement, TITAN shall make the following payments to HMRI:

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(a) An upfront license fee of Nine Million Five Hundred Thousand Dollars (\$9,500,000) consisting of (i) Four Million Dollars (\$4,000,000) in cash payable by TITAN to HMRI as follows: (X) Two Million Dollars (\$2,000,000) due on January 20, 1997 and (Y) Two Million Dollars (\$2,000,000) due on July 18, 1997, and (ii) Five Million Five Hundred Thousand Dollars (\$5,500,000) which shall be paid in TITAN common stock issuable to HMRI on January 20, 1997 in a private placement. The number of shares to be received by HMRI in 3.1(a)(ii) shall be determined by dividing \$5,500,000 by the closing price on the NASDAQ Small Cap Market as of a date to be determined by TITAN in its sole discretion but at a closing price during the period from the date of this License Agreement and ending January 20, 1997. In connection with the issuance of such shares to HMRI, HMRI represents that it is acquiring such shares for itself and not with a view towards distribution and acknowledges that the shares have not been registered under the Securities Act of 1933, as amended, and therefore cannot be resold unless they are registered under such act or unless an exemption from registration is available. At the sole discretion of HMRI, HMRI may sell this stock (at any time after two hundred seventy (270) calendar days of receipt of such stock) in a registered offering in accordance with Appendix D to this License Agreement, conducted through a broker designated by TITAN (provided that if TITAN has not designated a broker by the effective date of the registration statement covering such shares, HMRI may select a broker for such sales). TITAN shall not be obligated to register such shares until all of the documents listed in Appendix C to this License Agreement have been delivered to TITAN to its reasonable satisfaction. For a

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period not to exceed the second anniversary after the date of issuance of TITAN common stock, TITAN, at the option of HMRI, shall pay to HMRI in cash

the difference between (A) \$5,500,000 and (B) the net proceeds (including net of any brokerage commissions), if any, received by HMRI upon sale of the TITAN common stock received by HMRI pursuant to this Section 3.1(a). To exercise such option, HMRI shall send to TITAN a written statement of the amount due on account of the foregoing provisions upon completion of the sale of such TITAN common stock or 120 days from the date of the registration statement, whichever occurs earlier. Such payment due shall be paid by TITAN within ten (10) days after written notice. If all or a portion of such shares of TITAN common stock received by HMRI pursuant to this Section 3.1(a) have not been sold, regardless of whether a registration statement covering such shares has been declared effective, and in the event there is the payment of a difference by TITAN to HMRI, HMRI shall immediately surrender to TITAN, properly endorsed for transfer, certificates representing such unsold shares of TITAN common stock received by HMRI pursuant to this Section 3.1(a).

(b) A first development milestone payment of [] *
] shall be payable by TITAN to HMRI one time only upon the first NDA Filing (based on a full and complete regulatory package and for these purposes not to include an ANDA or "Paper" NDA) for PRODUCT in the FIELD in the United States (New Drug Application) or Europe (Marketing Authorization Application via the Central Procedure) by TITAN, its AFFILIATE or SUBLICENSEE. As used in this Section, "NDA Filing" shall mean the notification in writing to TITAN from the FDA or an equivalent EUROPEAN

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UNION application via the Centralized Procedure that the NDA is sufficiently complete to permit a substantive review. HMRI shall notify TITAN of its intent to receive this milestone payment, in whole or in part, of cash and/or TITAN common stock. If HMRI elects to receive a portion of this milestone payment in the form of TITAN common stock, such portion shall be mutually agreed to by HMRI and TITAN. Any cash portion of this milestone payment shall be paid within seven (7) business days of the date of such first filing. The portion of any milestone payment in the form of TITAN common stock shall be issued to HMRI in a private placement within thirty (30) days after the date of such first filing. The number of shares to be received by HMRI shall be determined by dividing the dollar amount to be received by HMRI in the form of stock by the amount based on the closing price of the TITAN common stock on the NASDAQ Small Cap Market on a date to be determined by TITAN, in its sole discretion, but on a date within thirty (30) days of the issuance of the TITAN common stock. The registration and sale of such stock shall be in accordance with Appendix D hereto. At the sole discretion of HMRI, HMRI may sell the stock portion of the development milestone payment at any time at least ninety (90) days after such issuance date, in a registered offering pursuant to Appendix D to this License Agreement, conducted through a broker designated by TITAN (provided that if TITAN has not so designated a broker by the effective date of the registration statement, HMRI may select a broker for such sale). For a period not to exceed the first anniversary after the date of issuance of TITAN common stock, TITAN, at the option of HMRI, shall pay to HMRI in cash the difference between (A) [] *] MINUS any cash received pursuant to this

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Section 3.1(b); and (B) the net proceeds (including net of any brokerage commissions), if any, received by HMRI upon the sale of the TITAN common stock received by HMRI pursuant to this Section 3.1(b). To exercise such option, HMRI shall send to TITAN a written statement of the amount due on account of the foregoing provisions upon completion of the sale of such TITAN common stock or 120 days from the date of the registration statement, whichever occurs earlier. Such payment due shall be paid by TITAN within ten (10) days after written notice. If all or a portion of TITAN common stock received by HMRI pursuant to this Section 3.1(b) have not been sold, regardless of whether a registration statement covering such shares has been declared effective, and in the event there is the payment of a difference by TITAN to HMRI, HMRI shall immediately surrender to TITAN properly endorsed for transfer, certificates representing such unsold shares of TITAN common stock received by HMRI pursuant to this Section 3.1(b).

(c) A second development milestone payment of [] *
] which shall be payable one time only by TITAN to HMRI as follows:
(i) [] *

[] * consisting in whole or in part of cash and/or TITAN common stock as determined by HMRI. Any portion of this milestone payment consisting of cash shall be paid within seven (7) business days of receipt by TITAN, its AFFILIATE or SUBLICENSEE of the first notification from the FDA or the regulatory agency for the EUROPEAN UNION marketing authorization via the Centralized Procedure, that PRODUCT is approved for marketing and commercialization by TITAN, its AFFILIATE or SUBLICENSEE (or their designee) for a major indication having an approval comparable

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to the principal indication(s) of leading competing products in the FIELD;
and (ii)

[] * consisting in whole or in part of cash and/or TITAN common stock within six (6) months after receipt of such notification. HMRI shall notify TITAN in writing of its intent to receive this second milestone payment, in whole or in part, in the form of cash and/or TITAN common stock. If HMRI elects to receive a portion of this milestone payment (in this Section 3.1(c)) in the form of TITAN common stock, such portion shall be mutually agreed to by HMRI and TITAN. Any portion of the second milestone payment in the form of TITAN common stock shall be issued to HMRI in a private placement within thirty (30) days after the date of notification by HMRI. The number of shares to be received by HMRI shall be determined by dividing the dollar amount to be received by HMRI in the form of stock at the closing price listed on the NASDAQ Small Cap Market on a date to be determined by TITAN at its sole discretion but on a date within thirty (30) days of the issuance of the TITAN common stock. At the sole discretion of HMRI, HMRI may sell the stock portion of this second milestone payment at any time at least ninety (90) days after the issuance date of such stock, in a registered offering pursuant to Appendix D to this License Agreement conducted through a broker designated by TITAN (provided that if TITAN has not so designated a broker by the effective date of the registration statement, HMRI may select a broker for such sales). For a period not to exceed one (1) year after the date of issuance of such TITAN common stock, TITAN shall, at the option of HMRI, pay to HMRI in cash the difference between (A) [] *] MINUS any cash received pursuant to this Section 3.1(c); and (B) the net proceeds (including net of any brokerage commissions), if

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any, received by HMRI upon the sale of the TITAN common stock received by HMRI pursuant to this Section 3.1(c). To exercise such option, HMRI shall send to TITAN a written statement of the amount due on account of the foregoing provisions upon completion of the sale of such TITAN common stock or 120 days from the date of the registration statement, whichever occurs earlier. Such payment due shall be paid by TITAN within ten (10) days after written notice. If all or a portion of such shares of TITAN common stock received by HMRI pursuant to this Section 3.1(c) have not been sold, regardless of whether a registration statement covering such shares has been declared effective, and in the event there is the payment of a difference by TITAN to HMRI, HMRI shall immediately surrender to TITAN properly endorsed for transfer, certificates representing such unsold shares of TITAN common stock received by HMRI pursuant to this Section 3.1(c).

3.2 (a) Unless HMRI instructs TITAN in writing otherwise, all cash payments by TITAN to HMRI (including, without limitation, upfront payments, milestone payments, payments by TITAN to HMRI for shortfalls upon HMRI's sale of TITAN common stock, and royalties) shall be made by bank wire transfer as follows:

Citibank - New York

ABA #02100089

At least two (2) business days prior to the planned wire transfer to the above Citibank account, TITAN shall notify HMRI's treasurer by facsimile (816-966-3847, Attention: Cash Manager) of the amount and date the cash shall be transferred. TITAN shall also notify HMRI in writing at least two (2) business days prior to issuance of TITAN common stock.

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(b) In the event of a late payment hereunder by TITAN to HMRI, TITAN shall pay to HMRI interest (based on the prime rate as stated in The Wall Street Journal, New York edition, on the date such payment is due (or the immediately preceding business date if such payment date is not a business date) plus two percent (2%)) on the outstanding balance until such balance, including interest, is paid in full to HMRI. The acceptance of such late payment shall act as a waiver of any rights HMRI may have hereunder due to a breach by TITAN relating solely to such payment being made late.

3.3 The parties acknowledge that the TITAN common stock to be acquired by HMRI shall be "restricted securities" under SEC Rule 144 or otherwise would be subject to the volume, timing, and manner of sale requirements of SEC Rule 144. In order to facilitate the disposition of such shares by HMRI, TITAN hereby grants to HMRI the demand and piggyback rights for registration under the U.S. Securities Act of 1933, as amended, which demand and piggyback rights are set forth in the Registration Rights Agreement attached hereto and made a part here as Appendix D. If there is a conflict between the terms and conditions of Sections 3.1 through 3.3 of this License Agreement and the Registration Rights Agreement, the terms and conditions of the Registration Rights Agreement shall govern.

3.4 As consideration for the license granted to TITAN in this License Agreement, TITAN shall pay to HMRI (i) a [] * [] royalty for use of PATENTS and KNOW-HOW, and (ii) a [] * [] royalty for the KNOW-HOW to manufacture COMPOUND and PRODUCT, in each case on TITAN's, its AFFILIATES' and SUBLICENSEES' annual NET SALES in the TERRITORY. The [] * [] royalty for the KNOW-HOW to manufacture

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COMPOUND and PRODUCT shall apply only in the event TITAN, its AFFILIATES or SUBLICENSEES manufactures COMPOUND and PRODUCT itself or through a subcontract manufacturer (other than HMRI or an HMRI AFFILIATE, in which event a separate supply agreement between HMRI shall be negotiated).

3.5 Upon expiration of all PATENTS claiming a priority date of May 19, 1989 and December 29, 1989 in a particular country in the TERRITORY for which a patent had been granted validly claiming Iloperidone or the manufacture, formulation or use thereof for use in the FIELD, TITAN's obligation to pay a royalty for use of PATENTS shall cease, and the royalty for KNOW-HOW not relating to manufacturing (whether or not such KNOW-HOW continues as a valid intellectual property right or is in the public domain) shall be [] * [] on TITAN's, its AFFILIATES' and any SUBLICENSEES' annual NET SALES in such country for a period of ten (10) years after the expiration of the final remaining PATENT. After the end of such ten (10) year period, no further royalties arising from sales of COMPOUND and PRODUCT in such country shall be due to HMRI and TITAN shall be entitled to continue to use the KNOW-HOW on a fully-paid, irrevocable basis in accordance with Section 10.3.

3.6 As consideration for the license granted to TITAN under this License Agreement in those countries in the TERRITORY for which (i) a PATENT application for COMPOUND or PRODUCT is pending or (ii) no PATENT application has been filed or (iii) PATENTS have been abandoned or been held invalid or unenforceable by a decision of a court or tribunal of competent jurisdiction from which no appeal is or can be taken (collectively, "Non-Patent Countries"), TITAN shall pay to HMRI, on a country-by-country basis, a [] *

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on TITAN's, its AFFILIATES' and any SUBLICENSEES' annual NET SALES in the Non-Patent Countries for a period of five (5) years from the date of the first commercial sale of PRODUCT in each such country by TITAN, its AFFILIATES or SUBLICENSEES. After the end of such five (5) year period, no further royalties arising from sales of COMPOUND or PRODUCT in such country shall be due. However, with respect to Section 3.6(i) or (ii), if at any time during or after such five (5) year period a PATENT for COMPOUND or PRODUCT is issued in such country, subject to Section 3.5, TITAN shall pay to HMRI from the date the PATENT was issued (i) a [*] royalty for PATENT and KNOW-HOW and (ii) a [*] royalty for the KNOW-HOW to manufacture. Upon expiration of TITAN's obligation to pay a royalty under such PATENT, a [*] royalty on NET SALES shall be paid to HMRI for a period of five (5) years after which TITAN shall be entitled to continue to use the KNOW-HOW on a fully-paid, irrevocable basis in accordance with Section 10.3.

4. COMPULSORY LICENSES AND THIRD PARTY LICENSES

4.1 (a) In the event that during the term of this License Agreement a governmental agency in the TERRITORY grants or compels HMRI to grant a license to any THIRD PARTIES for COMPOUND or PRODUCT in such country(ies), TITAN shall have the benefit of any lower royalty rates granted to such THIRD PARTIES, but only to the extent that such royalty rates to THIRD PARTIES are more favorable than those granted TITAN pursuant to this License Agreement, and only during the period such THIRD PARTIES sell COMPOUND or PRODUCT in those countries of the TERRITORY where compulsory license(s) exist and have achieved for a period of at least six (6) consecutive months a

combined total sales volume of at least ten percent (10%) of TITAN's, its AFFILIATE'S and SUBLICENSEE'S sales of PRODUCTS in such country(ies).

(b) If a governmental authority in a country in the TERRITORY imposes a maximum royalty rate, such that lower royalty rates than would otherwise apply under this License Agreement are mandated in such country, then the royalty rates provided for herein shall be reduced to equal such lower rates for sales of COMPOUND or PRODUCT in such country for the period such lower royalty rate is required by any governmental authority and shall cease when TITAN's royalty payment obligations to HMRI cease under this License Agreement.

4.2 (a) If, during the term of this License Agreement, HMRI and TITAN agree that a patent(s) of a THIRD PARTY exists in the TERRITORY covering the manufacture, use or sale of COMPOUND or PRODUCT, and if it should prove, in the reasonable judgment of HMRI and TITAN, impractical or impossible for TITAN or its AFFILIATES or SUBLICENSEES to continue the activity or activities licensed hereunder in the FIELD without obtaining a royalty-bearing license from such THIRD PARTY under such patent(s) or if the parties otherwise agree it is desirable for HMRI to acquire any THIRD PARTY patent or license in connection with the development or manufacture of COMPOUND or PRODUCT covered by PATENTS in the TERRITORY, then in either case the provisions of Section 8.8(c) shall apply.

(b) If, after attempting in good faith to resolve the issue relating to licensing THIRD PARTY patents in Section 4.2(a) between themselves, the parties are unable to agree within ninety (90) days as to whether it is impracticable or impossible for TITAN, its AFFILIATES or SUBLICENSEES to continue the activity or activities licensed

hereunder without obtaining a royalty-bearing license from a THIRD PARTY, the issue shall be submitted to a disinterested, competent and experienced patent attorney reasonably acceptable to both parties for resolution. If the parties cannot agree on the selection of such patent attorney, then each party shall select a patent attorney and the selected patent attorneys shall select a mutually acceptable patent attorney who will determine whether such THIRD PARTY rights materially inhibit TITAN's ability to

manufacture, distribute or sell COMPOUND or PRODUCT. The costs of such patent attorney shall be borne equally, provided that in the event the patent attorney determines that such THIRD PARTY rights do not materially inhibit TITAN's ability to manufacture, distribute or sell COMPOUND or PRODUCT, then the costs of such patent attorney shall be borne by TITAN.

5. DEVELOPMENT

5.1 Upon the signing of this License Agreement, TITAN shall have full legal and financial responsibility for all costs that are incurred and all activities that are undertaken after the signing of this License Agreement, which are related to development, safety and required periodic reporting to the FDA and equivalent ex-U.S. regulatory agency, marketing, regulatory approvals, price registrations, and other activities required by TITAN or its SUBLICENSEE(S) (or their respective agents or distributors) to obtain appropriate government approvals for, and to commercialize, COMPOUND and PRODUCT in the TERRITORY. Other than as expressly provided for herein or in Article II.A. of the Letter of Intent, dated November 19, 1996, between the parties, TITAN shall not assume, nor shall TITAN be liable for, any costs or activities (whether scientific, financial or otherwise) relating to the COMPOUND or PRODUCT that were incurred or undertaken prior to the signing of this License Agreement (including without limitation any costs, expenses, damages, losses, fines, penalties or the like that may be awarded or assessed after the

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signing of this License Agreement, but which arise out of events and activities that occurred prior to the signing of this License Agreement).

5.2 Provided that the AFFILIATES, SUBLICENSEES and other THIRD PARTIES agree to substantially the same terms of confidentiality in Section 6.4 hereof, TITAN may appoint such AFFILIATES, SUBLICENSEE(S) and other THIRD PARTIES to perform any and all development activities necessary to obtain government approvals for PRODUCT in the TERRITORY. The appointment of any SUBLICENSEE shall require HMRI's prior written consent, which consent shall not be unreasonably withheld.

5.3 TITAN shall, in a manner consistent with the effort TITAN devotes to its own products having the same or similar potential value as PRODUCT, exercise its reasonable commercial efforts and diligence in developing and commercializing PRODUCT, and in undertaking those investigations and actions required to obtain appropriate governmental approvals to market PRODUCT in the TERRITORY. All such activity shall be undertaken at TITAN's expense. HMRI shall use reasonable efforts to assist or provide consultation at TITAN's expense in support of the development of COMPOUND or PRODUCT, but in its discretion may limit its resources and assistance.

5.4 Upon the signing of this License Agreement, TITAN shall inform HMRI in writing which of the contract research organizations ("CROs") and other organizations currently working on development activities relating to COMPOUND and/or PRODUCT which TITAN desires to retain, and those development activities on which TITAN desires to have such CROs and other organizations work. Provided (a) the contracts can be modified as may be desired by TITAN and (b) such CROs release HMRI from any liability thereunder, existing contracts between HMRI and such CROs and other organizations which TITAN wants to assume shall be assigned to TITAN

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by HMRI after the signing of this License Agreement by HMRI and TITAN entering into an assignment, release and assumption agreement with respect to each such contract, which shall provide, INTER ALIA, that HMRI shall have no legal, financial or administrative responsibilities related to such contracts as of the date of such assignment. TITAN shall endeavor in good faith to have a CRO which has a pre-existing agreement with HMRI relating to work to be performed on the COMPOUND or PRODUCT, to enter into an agreement with HMRI and TITAN releasing HMRI and TITAN from all liability under such pre-existing agreement. If such CRO is unwilling to grant such release to HMRI, then HMRI in its sole discretion may waive the requirement of a release as to a particular issue(s) raised by such CRO which HMRI in good faith deems to be meritorious. TITAN shall be solely responsible for negotiation of contracts with any other CROs and other organizations it desires to work on development activities relating to COMPOUND and/or PRODUCT and TITAN shall bear all legal and financial responsibility under such new contracts.

5.5 Any inventions or discoveries or improvements which arise from TITAN'S, its AFFILIATE'S or SUBLICENSEE'S work relating to the development and/or manufacture of the COMPOUND and/or PRODUCT shall be owned by TITAN, but shall be licensed to HMRI, at HMRI's option on a world-wide, non-exclusive,

perpetual basis, at a license fee and/or royalty to be negotiated at such time.

5.6 In the event uses or indications outside the FIELD are identified by HMRI or TITAN, TITAN shall have a right of first negotiation for a separate license from HMRI to develop and commercialize such other uses and indications under terms to be negotiated in good faith at such time. Such right of first negotiation shall mean that HMRI shall offer to TITAN the right to develop and commercialize such uses and indications under a separate license, the financial terms of which may be no less favorable than the financial terms provided for in this License

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Agreement, except that TITAN shall not be required to pay to HMRI any upfront license fees or milestone payments. If TITAN exercises its right of first negotiation, the parties shall negotiate in good faith for a period of ninety (90) days and, if the parties are unable to enter into a separate definitive written agreement regarding such license by the end of such ninety (90) day period, HMRI or an AFFILIATE shall be free to develop and commercialize such other use or indication itself or to enter into a license or other agreement with a THIRD PARTY, and shall have no further obligations to negotiate with TITAN or further license obligations with respect thereto.

5.7 TITAN shall provide to HMRI regular written reports at least every six (6) months setting forth significant developments and improvements that affect COMPOUND or PRODUCT. From the date of this License Agreement, TITAN shall provide to HMRI on an annual basis, a written report on the status and progress of the development and/or registration activities related to COMPOUND or PRODUCT.

5.8 TITAN, or its SUBLICENSEES, shall promptly advise HMRI in writing upon the submission and filing for government regulatory approval to market PRODUCT, and upon the receipt of government regulatory approval to market PRODUCT, in each case in each country in the TERRITORY, and shall commence marketing PRODUCT in such country in accordance with Section 5.3.

6. EXCHANGE OF INFORMATION AND CONFIDENTIALITY

6.1 Upon the signing of this License Agreement, HMRI shall deliver to TITAN, pursuant to Appendices C, E and F hereto, all available KNOW-HOW, documents, information and data which is owned or controlled by it and its AFFILIATES, which may be reasonably expected to assist TITAN in developing, registering, manufacturing and marketing COMPOUND and PRODUCT in the TERRITORY. After the execution of this License Agreement, there shall be a

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transition until March 31, 1997 during which HMRI shall provide, at its own cost, reasonable resources, expertise, KNOW-HOW and documents to effectively transfer the development activity to TITAN as more fully set forth in Appendix E hereto. In addition, subsequent to March 31, 1997, HMRI shall complete the activities set forth in Appendix F in a mutually agreed time frame. Upon HMRI's receipt of the upfront license fee referred to in Section 3.1(a) hereof, HMRI and TITAN each shall promptly provide written notification to the FDA that HMRI assigns and that TITAN assumes sponsorship of the U.S. IND No. 36,827 (as specified in 21 CFR 314.72). Within ten (10) days after the date of such written notification, HMRI shall transfer the U.S. IND for COMPOUND or PRODUCT to TITAN. Until such transfer is made, TITAN shall have the right to make reference to such COMPOUND or PRODUCT owned or controlled by HMRI or its AFFILIATE. At the option of TITAN, TITAN shall notify HMRI in writing by March 31, 1997 of TITAN's desire to have the sponsorship of Canadian IND Control No. 27740 transferred from Hoechst Marion Roussel Canada, Inc. ("HMRC") to TITAN, after which date, without such notification, HMRC shall have the right to terminate such IND. Upon TITAN notifying HMRI of such desire to have such sponsorship, the Canadian IND regulatory file shall be transferred to TITAN within a mutually agreed time frame and manner.

6.2 TITAN shall have EXCLUSIVE use, subject to the terms of this License Agreement and in particular Section 2.1(c), of all KNOW-HOW, documents, information, data and material for the development, registration, manufacture and marketing of COMPOUND and PRODUCT for use in the FIELD. HMRI and its AFFILIATES shall keep confidential all KNOW-HOW, documents, information and data in their possession or received from or generated by or on behalf of TITAN that is not already in the public domain relating to COMPOUND and PRODUCT regarding the use in the FIELD with the same level of care HMRI uses for its own confidential

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information. Upon HMRI's request during the term of this License Agreement, TITAN shall deliver to HMRI a copy of all such information and data in a form to be mutually agreed upon, within thirty (30) days after HMRI's request.

6.3 Subject to the confidentiality obligations of this Article 6, HMRI shall be able to freely use KNOW-HOW, documents, information and data disclosed or generated by TITAN, its AFFILIATES and SUBLICENSEES and applications for government approvals (United States or EUROPEAN UNION), reports on the status and progress of the development of COMPOUND or PRODUCT and the like in any country(ies) deleted from the TERRITORY and as to which this License Agreement has been terminated pursuant to the terms hereof.

6.4 During the period of time during which TITAN is obligated to pay royalties hereunder and for seven (7) years thereafter, irrespective of any termination with respect to a particular country or countries in the TERRITORY, TITAN shall not reveal or disclose to THIRD PARTIES or use for any purpose other than to perform its obligations herein any Confidential Information (as defined below) without first obtaining the written consent of HMRI, except as may be otherwise provided herein, or for securing essential or desirable authorizations, privileges, licenses, registration or rights from governmental agencies, or is required to be disclosed to a governmental agency or is necessary to file or prosecute PATENT applications concerning COMPOUND or PRODUCT or to carry out any litigation concerning COMPOUND or PRODUCT; provided, however, that TITAN notifies HMRI in writing in a reasonably sufficient time frame prior to making such disclosure that TITAN intends to make such disclosures and the details thereof, and TITAN seeks confidential treatment where available of such Confidential Information from such governmental agencies. This confidentiality obligation shall not apply to such information which is or becomes a matter of public knowledge through no fault of TITAN's, or is already in the

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possession of TITAN as evidenced by written records, or is disclosed to TITAN by a THIRD PARTY having the right to do so, or is subsequently and independently developed by employees of TITAN or AFFILIATES who had no knowledge of the Confidential Information. TITAN shall take reasonable measures to assure that no unauthorized use or disclosure is made by others to whom access to such information is granted. As used herein, "Confidential Information" means, any confidential or proprietary information of HMRI, including any present or future formulas, research project, work in process, inventions, procedures, development, scientific, engineering, manufacturing, marketing, business or financial plan or records, products, sales, suppliers, customers, or investors, whether such confidential or proprietary information is in oral, written, graphic or electronic form (including all copies in whole or in part of any of the foregoing) and which derives value from being known to the discloser or owner.

6.5 Each party shall promptly inform the other party of any information that it obtains or develops regarding the safety of COMPOUND or PRODUCT and shall promptly report to the other party any confirmed information of serious or unexpected reactions or side effects related to the utilization or medical administration of PRODUCT in accordance with the procedures that shall be agreed upon in writing by the parties by no later than March 31, 1997.

6.6 Nothing herein shall be construed as preventing TITAN from disclosing any information received from HMRI to an AFFILIATE, SUBLICENSEE, distributor, contractor, agent, consultant, legal counsel or other THIRD PARTY involved in the development, manufacture, marketing, promotion or sale of COMPOUND or PRODUCT, provided such AFFILIATE or SUBLICENSEE or other THIRD PARTY has undertaken a similar obligation of confidentiality with respect to the Confidential Information.

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6.7 In the event that a court or other legal or administrative tribunal, directly or through an appointed master, trustee or receiver, assumes partial or complete control over the assets of TITAN based on the insolvency or bankruptcy of TITAN, TITAN shall promptly notify the court or other tribunal (i) that Confidential Information received from HMRI remains the property of HMRI and (ii) of the confidentiality obligations under this License Agreement. In addition, TITAN shall, to the extent permitted by law, take all steps reasonably necessary or desirable to maintain the confidentiality of HMRI's Confidential Information and to ensure that the court, other tribunal or appointee maintains such information in confidence in accordance with the terms of this License Agreement.

6.8 No public announcement or other disclosure to THIRD PARTIES concerning the existence of or terms of this License Agreement shall be made, either directly or indirectly, by either party to this License Agreement, except as may be legally required, without first obtaining the approval of the other party, which approval shall not be unreasonably withheld, and shall be given within a reasonable time. The party desiring to make any such public announcement or other disclosure shall provide the other party with a written copy of the proposed announcement or disclosure in sufficient time prior to proposed public release, to allow such other party to comment upon the nature, text and timing of such announcement or disclosure, prior to proposed public release.

6.9 Neither party shall submit for written or oral publication any manuscript, abstract or the like which includes KNOW-HOW, data or other information generated and/or provided by HMRI or TITAN pursuant to this License Agreement without first obtaining the prior written consent of the other party, which consent shall not be unreasonably withheld. The

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contribution of each party shall be noted in all publications or presentations by acknowledgment or coauthorship, whichever is appropriate.

7. HMRI SUPPLY OF COMPOUND AND PRODUCT TO TITAN

7.1 HMRI shall supply COMPOUND and PRODUCT to TITAN under the following conditions;

(a) Upon written notice by TITAN to HMRI, HMRI shall, at its own cost (including without limitation, duties, tariffs and the like), ship to TITAN or its designee, free of charge, the quantities of COMPOUND and PRODUCT to be determined by TITAN within thirty (30) days after the date of this agreement (which quantities include COMPOUND in bulk active ingredient form and PRODUCT both in bulk tablet and packaged tablet form); provided, however, HMRI shall not be obligated to produce bulk substance beyond its existing supply.

(b) Title to, and risk of loss with respect to, all COMPOUND and PRODUCT supplied by HMRI to TITAN under this Section 7.1 shall pass to TITAN upon the receipt of such COMPOUND and PRODUCT by TITAN or its designee at their point of delivery. HMRI shall ship COMPOUND and PRODUCT to TITAN upon notification by TITAN that adequate secured storage space meeting any regulatory requirements has been designated and that the FDA has been notified by TITAN of its sponsorship of the U.S. IND No. 36,827.

(c) Any shipment of COMPOUND or PRODUCT shall include a certificate of analysis with respect thereto. Unless TITAN notifies HMRI within sixty (60) days after receipt of any shipment that COMPOUND or PRODUCT does not conform with the specifications therefor, by using the methods of analysis provided by HMRI to TITAN

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under this Section 7.1(a), then such shipment shall be deemed to be accepted by TITAN (except in the case of defects, contamination or other problems that could not have been ascertained by testing COMPOUND or PRODUCT in accordance with the methods of analysis therefor).

(d) If TITAN notifies HMRI of any non-conformance of COMPOUND or PRODUCT with specifications therefor, the parties shall discuss in good faith such non-conformance and if it cannot be resolved within ten (10) days, the parties shall have an independent reputable laboratory, reasonably acceptable to both parties, test representative samples from such shipment, and the results of such laboratory shall be final and binding on the parties. The party whose determination is not upheld by the laboratory's results shall bear the costs of such testing.

7.2 HMRI shall provide information and assistance to TITAN with respect to COMPOUND and PRODUCT as follows:

(a) Upon the signing of this License Agreement, HMRI shall deliver to TITAN any and all KNOW-HOW, documentation, data and other information owned or controlled by HMRI and its AFFILIATES, that TITAN may reasonably require for the manufacture of COMPOUND and PRODUCT. Such information shall include without limitation the specifications for COMPOUND and PRODUCT and methods of analysis for testing COMPOUND and PRODUCT, as currently described within the IND regulatory documentation including Chemistry-Manufacturing/Controls (CMC) information amendments and the technology transfer file.

(b) HMRI shall provide to TITAN or its designated THIRD PARTY assistance for the transfer of manufacturing technology, through documentation, consultation

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and face-to-face meetings, to enable TITAN or THIRD PARTY to proceed with development of commercial-scale manufacturing. If requested by TITAN or the THIRD PARTY, HMRI shall visit the designated commercial manufacturing facility, with the limitation of three (3) visits, not to exceed a total of ten (10) business days, for which TITAN shall bear all the costs of travel and other out-of-pocket expenses.

7.3 HMRI represents and warrants that:

(a) all COMPOUND and PRODUCT supplied hereunder shall meet the specifications therefor at the time COMPOUND and PRODUCT are delivered to TITAN or its designee;

(b) the specifications for COMPOUND and PRODUCT are consistent with those set out in the INDs sponsored by HMRI;

(c) all COMPOUND and PRODUCT supplied hereunder shall be manufactured, stored and shipped in accordance with GMPs and other applicable laws and regulations;

(d) none of the COMPOUND or PRODUCT supplied hereunder shall be adulterated or misbranded as provided for under applicable laws and regulations; and

(e) as of the date of this License Agreement, the raw materials for the manufacture of COMPOUND are readily available in the marketplace.

7.4 TITAN shall return to HMRI all unused COMPOUND or PRODUCT supplied by HMRI to TITAN hereunder.

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The information below marked by * and [] has been omitted pursuant to a request for confidential treatment. The omitted portion has been separately filed with the Commission.

8. PATENT PROSECUTION, MAINTENANCE AND EXTENSION; INFRINGEMENT

8.1 HMRI shall be responsible for the filing, prosecution (including oppositions) and maintenance of the PATENTS at HMRI's expense. For so long as the license grants set forth in Article 2 remain in effect, HMRI agrees to file and prosecute and maintain the PATENTS in the TERRITORY, provided that the foregoing is subject to HMRI's reasonable business judgment. HMRI shall keep TITAN informed of important issues relating to the preparation, filing, prosecution and maintenance of such patent applications and patents. TITAN shall have the right to comment on HMRI's preparation, filing, prosecution and maintenance of patent applications and PATENTS, and HMRI shall give due consideration to TITAN's comments, but HMRI shall make all decisions regarding same.

8.2 If HMRI elects not to seek patent protection in countries listed in Appendix G or to maintain patent protection on PATENTS listed in Appendix A in any country in the TERRITORY to the extent that PATENTS claim COMPOUNDS or PRODUCT (or formulations, use or manufacture thereof), TITAN shall have the right, at its option and at HMRI's expense, which expense must be approved in advance by HMRI (approval which shall not be unreasonably withheld), to file, prosecute (including oppositions) and maintain any such patent applications and patents in HMRI's name, and any patent issued therefrom shall be owned by HMRI. HMRI shall advise TITAN of its decision not to seek or maintain patent protection in a reasonably timely manner. In the event that a PATENT is issued covering COMPOUND or PRODUCT in any country in the TERRITORY under the conditions of this Section 8.2, TITAN shall pay HMRI a [*] royalty on NET SALES for five (5) years from the date of such patent issuance in such country in

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recognition of HMRI's KNOW-HOW and manufacturing rights and the right to make and sell COMPOUND or PRODUCT in such country. Legal fees and expenses, as confirmed by HMRI, incurred by TITAN shall be deducted from the royalty paid to HMRI.

8.3 Each party shall make available to the other party its employees, agents, subcontractors or consultants (including its authorized attorneys) to the extent reasonably necessary or appropriate to enable the appropriate party to file, prosecute and maintain patent applications and resulting patents subject to this License Agreement to the extent that PATENTS claim COMPOUND or PRODUCT (or formulations, use or manufacture thereof). Where appropriate, each party shall sign or cause to have signed all documents relating to said patent applications or patents at no charge to the other party.

8.4 HMRI shall promptly notify TITAN in writing of (i) the issuance of each PATENT giving the date of issue and patent number for each patent, and (ii) each notice pertaining to any PATENT which it receives as patent owner pursuant to the Drug Price Competition and Patent Term Restoration Act of 1984, or other similar laws now or hereafter in effect which extend the PATENT life, or pursuant to comparable laws or regulations in other countries in the TERRITORY. At HMRI's expense, the parties shall cooperate with each other in applying for patent term extensions (including Supplementary Protection Certificate in EUROPEAN UNION member states) where applicable in any country of the TERRITORY. HMRI shall have full responsibility and authority in the decisions regarding filing for the foregoing PATENT extensions at its own expense although TITAN shall be consulted and its opinions given due consideration in such decision-making process. If HMRI elects not to pursue extension of any PATENTS, TITAN shall have the right (but not the obligation) to apply for such extension in HMRI's name and at TITAN's expense and HMRI shall reasonably cooperate in the filing and procurement thereof.

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8.5 Except as otherwise expressly provided in this License Agreement, under no circumstances shall a party hereto, as a result of this License Agreement, obtain any ownership interest in or other right to any technology, KNOW-HOW, patents, pending patent applications, products, or biological material of the other party, including items owned, controlled, discovered, invented or developed by the other party, or transferred by the other party to said party, at any time pursuant to this License Agreement which is not a direct result of the study, KNOW-HOW and experimentation of COMPOUND and PRODUCT. It is understood and agreed that this License Agreement does not grant TITAN any license to other uses for COMPOUND or PRODUCT outside the FIELD.

8.6 TITAN and HMRI shall each promptly, but in any event no later than ten (10) business days after receipt of notice of such action, notify the other in writing of any PATENT nullity actions, any declaratory judgment actions or an alleged or threatened infringement of PATENTS or PATENT applications or misappropriation of intellectual property comprising PATENTS, or if either party, or any of their respective AFFILIATES or SUBLICENSEES, shall be individually named as a defendant in a legal proceeding by a THIRD PARTY alleging infringement of a patent or other intellectual property right of such THIRD PARTY as a result of the manufacture, production, use, development, marketing, selling or distribution of COMPOUND or PRODUCT, or of any information or notification regarding the PATENTS.

8.7 HMRI shall have the first right to respond to, defend or prosecute any actions, challenges, infringements, misappropriations or proceedings by a THIRD PARTY alleging infringement described in Section 8.6. In the event HMRI elects to do so, TITAN will cooperate with HMRI and its legal counsel, join in such suits as may be brought by HMRI, and be available at HMRI's reasonable request to be an expert witness or otherwise to assist in such proceedings and

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at HMRI's expense. HMRI will cooperate with TITAN and its legal counsel and keep TITAN and its counsel reasonably informed at all times as to the status of HMRI's response or defense.

8.8 In the event that HMRI elects to respond to, defend or prosecute any actions, challenges, infringements, misappropriations or proceedings by a THIRD PARTY claiming infringement described in Section 8.6 hereof, then:

(a) legal fees and other costs and expenses of HMRI associated with such response or defense shall be paid by HMRI;

(b) legal fees and other costs and expenses associated with such response or defense incurred by TITAN at HMRI's request, shall be paid by HMRI;

(c) costs of acquiring THIRD PARTY patents or licenses and any settlement, court award, judgment or other damages shall be paid by HMRI to such THIRD PARTIES out of royalties projected to be received from TITAN; provided, however, HMRI shall not be obligated to pay for any patents or licenses for uses of COMPOUND or PRODUCTS not disclosed in PATENTS as of the date of the execution of this License Agreement; and

(d) any amounts recovered from THIRD PARTIES in connection with such response or defense shall be applied [*] to TITAN and [*] to HMRI, subject first to reimbursement of both parties for expenses.

8.9 In the event that HMRI elects not to respond to, defend or prosecute any actions challenges, infringements, misappropriations or proceedings by a THIRD PARTY alleging infringement described in Section 8.6 hereof or HMRI abandons any such action, HMRI shall notify

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The information below marked by * and [] has been omitted pursuant to a request for confidential treatment. The omitted portion has been included herein.

TITAN in writing within thirty (30) days after becoming aware or notified of such actions, challenges, infringements, misappropriations, proceeding or upon HMRI's decision to abandon any such action. In such event, TITAN shall have the option to respond, defend or prosecute such action at TITAN's sole cost, provided that HMRI shall cooperate with and provide assistance to TITAN at HMRI's expense. All amounts recovered from any THIRD PARTY shall be applied [*] to TITAN and [*] to HMRI, subject first to reimbursement of both parties for expenses.

8.10 In the event that the parties mutually agree that it is desirable for HMRI to acquire any THIRD PARTY patent or license in connection with the development or manufacture of COMPOUND or PRODUCT covered by PATENTS in the TERRITORY, then the costs of acquiring such THIRD PARTY patent or license shall be paid by HMRI to such THIRD PARTIES out of royalties received from TITAN. HMRI shall not be obligated to pay for any patents or licenses for uses of COMPOUND or PRODUCTS not disclosed in PATENTS as of the date of the execution of this License Agreement.

8.11 TITAN recognizes that HMRI has reserved certain rights in the patents set forth in Appendix A and that there may be a legitimate dispute between the parties whether a legal action should be brought against a THIRD PARTY which could effect HMRI's reserved rights under those patents and TITAN's license rights under this License Agreement. In the event that there is a dispute between the parties regarding whether there is an infringement of PATENTS by a THIRD PARTY and therefore whether a legal action should be initiated, the parties shall submit the issue to a disinterested, competent and experienced patent attorney reasonably acceptable to the

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parties to determine whether or not there is an infringement and legal actions should be taken. If the parties cannot agree on the selection of such a patent attorney, then each party shall select a patent attorney and those selected patent attorneys shall select a mutually acceptable patent attorney. That selected patent attorney shall determine whether or not there is an infringement and legal action should be taken and then each party may decide whether or not to initiate a legal action as described by this Article 8. The compensation to, and expenses of, such patent attorney shall be borne by the losing party.

9. STATEMENTS AND REMITTANCES

9.1 TITAN shall keep, and require its AFFILIATES and SUBLICENSEES to keep complete and accurate records of all NET SALES of PRODUCT under the licenses granted herein. HMRI shall have the right, at HMRI's expense, through a certified public accountant or like independent person reasonably acceptable to TITAN, and following reasonable notice, to examine such records under conditions of confidentiality during regular business hours during the period of time during which royalties are due and payable hereunder and for two (2) years thereafter; provided, however, that such examination shall not take place more often than once a year and shall not cover such records for more than the preceding two (2) years; and provided further, that such accountant shall report to HMRI only as to the accuracy of the NET SALES computation and royalty statements and payments. It is agreed that if this License Agreement is

terminated with respect to a particular country(ies), then HMRI's examination rights shall continue with respect to sales of PRODUCT in such country(ies) only for a period of two (2) years after the termination of license rights in that country. Copies of all such accountant's reports shall be supplied to TITAN.

9.2 Within sixty (60) days after the close of each calendar quarter, TITAN shall deliver to HMRI a true accounting of all PRODUCT sold by TITAN, its AFFILIATES and

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SUBLICENSEES during such quarter and shall at the same time pay all earned royalties due. Such accounting shall show NET SALES of PRODUCT on a country-by-country and product-by-product basis and such other particulars as are reasonably necessary for accounting of the royalties payable hereunder.

9.3 Any tax paid or required to be withheld by TITAN on account of royalties payable by TITAN to HMRI under this License Agreement shall be indicated on the accounting described in Section 9.2 hereof and deducted from the amount of royalties otherwise due. TITAN shall secure and send to HMRI proof of any such taxes withheld and paid by TITAN. Any withholding or other tax arising on or following permitted assignment of this License Agreement by TITAN or a SUBLICENSEE shall be for the account of and paid by TITAN.

9.4 Unless otherwise indicated herein, and subject to foreign exchange regulations then prevailing, to the extent free conversion from local currency to United States dollars is permitted, all payments and royalties payable under this License Agreement shall be paid in cash in U.S. dollars by wire transfer in accordance with Section 3.2 hereof. If governmental regulations prevent remittances from a foreign country with respect to sales made in that country, the obligation of TITAN to pay royalties on sales in that country shall be suspended until such remittances are possible but such royalties shall accrue as an accounts payable by TITAN to HMRI. HMRI shall have the right, upon giving written notice to TITAN, to receive payment in that country in local currency.

9.5 Monetary conversions from the currency of a foreign country, in which PRODUCT is sold, into United States currency shall be made by using the exchange rates published in the Foreign Exchange column of The Wall Street Journal, New York edition, or other qualified

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source mutually acceptable to the parties on the last business day of the calendar quarter for which the royalties are being paid.

10. TERM AND TERMINATION

10.1 In the event the development of COMPOUND and PRODUCT is terminated altogether by TITAN for reasons of toxicology, safety, efficacy, product stability or the like deemed unacceptable by the FDA or its equivalent ex-U.S. regulatory agency in the EUROPEAN UNION or Japan to commercialize PRODUCT, then this License Agreement shall terminate in its entirety and the license granted hereunder shall revert back to HMRI. HMRI shall retain all upfront license fees and milestone payments it had received up to the date of termination if, and only if, termination was not due to any misrepresentations, omissions (of information owned or controlled by HMRI or its AFFILIATES as of the date hereof) or falsifications with respect to such KNOW-HOW, information or data or fraud by HMRI or its AFFILIATES, which case HMRI shall repay in full to TITAN within ninety (90) days of such termination, the upfront license fee and milestone payments HMRI had received from TITAN up to the date of such termination (including in the form of TITAN common stock).

10.2 In the event the development of COMPOUND and PRODUCT is terminated altogether by TITAN within one (1) year of the date this License Agreement for reasons other than toxicology, safety, efficacy, product stability or like issues deemed unacceptable by the FDA or its equivalent ex-U.S. regulatory agency in the EUROPEAN UNION or Japan to commercialize PRODUCT, then this License Agreement shall terminate in its entirety and the license granted hereunder shall revert back to HMRI. HMRI shall retain all upfront license fees it had received up

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to the date of termination and TITAN shall also pay [

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] penalty payment to HMRI if, and only if, termination was not due to any misrepresentations, omissions (of information owned or controlled by HMRI or its AFFILIATES as of the date hereof) or falsifications with respect to KNOW-HOW, information or data or fraud by HMRI or its AFFILIATES, in which case HMRI shall repay in full to TITAN, within ninety (90) days of such termination, the upfront license fee and milestone payments HMRI had received from TITAN up to the date of such termination (including in the form of TITAN common stock).

10.3 Unless otherwise terminated, this License Agreement shall expire on a country-by-country basis upon the expiration of TITAN'S obligation to pay royalties under this License Agreement in each such country. Expiration of this License Agreement under this provision shall not preclude TITAN, its AFFILIATES and SUBLICENSEES from continuing directly or indirectly to manufacture, market and sell COMPOUND and PRODUCT and to use KNOW-HOW without further royalty payments.

10.4 In the event there is a change in the control of TITAN, TITAN shall give HMRI thirty (30) days' written notice of such event and that the development and commercialization of COMPOUND and PRODUCT will continue per the terms of this License Agreement.

10.5 (a) If either party materially defaults in its performance of this License Agreement and if such default is not corrected or if the party in default is not exercising reasonably diligent efforts to cure such default within ninety (90) days after receiving written notice from the other party with respect to such default, or if such default is not correctable within ninety (90) days then such other party shall have the right to terminate this License

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Agreement at the end of such period in its entirety by giving written notice to the party in default.

(b) In the event TITAN materially defaults in its performance under this License Agreement with respect to a particular country, then, subject to Section 11.4 hereof, HMRI's right to terminate shall be limited to termination of the license granted hereunder in such country only.

10.6 (a) Subject to applicable bankruptcy laws, either party may terminate this License Agreement if, at any time, the other party shall file in any court pursuant to any statute of the United States or of any individual state or foreign country, a petition in bankruptcy or insolvency or for reorganization in bankruptcy or for an arrangement or for the appointment of a receiver or trustee of the party or of its assets, or if the other party shall be served with an involuntary petition against it, filed in any insolvency proceeding, and such petition shall not be dismissed within ninety (90) days after the filing thereof, or if the other party shall propose or be a party to any dissolution, or if the other party shall make an assignment for the benefit of creditors.

(b) Without limitation, TITAN's rights under this License Agreement shall include those rights afforded by 11 U.S.C. Section 365 (n) of the United States Bankruptcy Code and any successor thereto (the "Code"). If the bankruptcy trustee of HMRI as a debtor or debtor-in-possession rejects this License Agreement under 11 U.S.C. Section 365 (n) of the Code, TITAN may elect to retain its rights licensed from HMRI hereunder (and any other supplementary agreements hereto) for the duration of this License Agreement and avail itself of all rights and remedies to the full extent contemplated by this

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License Agreement and 11 U.S.C. Section 365 (n) of the Code, and any other relevant sections of the Code and other relevant non-bankruptcy law.

11. RIGHTS AND DUTIES UPON TERMINATION

11.1 Upon termination of this License Agreement, HMRI shall have the right to retain any sums already paid by TITAN hereunder, and TITAN shall pay all sums accrued hereunder which are then due except as otherwise defined in this License Agreement.

11.2 Upon early termination of this License Agreement in its entirety under Sections 10.2 or 11.6 or with respect to any country, or due to a breach hereof by TITAN, TITAN shall notify HMRI of the amount of COMPOUND and PRODUCT that TITAN, its AFFILIATES and SUBLICENSEES then have on hand for sale in each country, the sale of which would, but for the termination, be subject to

royalty, and TITAN, its AFFILIATES and SUBLICENSEES shall thereupon be permitted to sell that amount of COMPOUND and PRODUCT, provided that TITAN shall pay the royalty thereon to HMRI at the time herein provided for.

11.3 Expiration or termination of this License Agreement or termination on a country-by-country basis shall terminate all outstanding obligations and liabilities between the parties arising from this License Agreement except those described in Sections 6.2 (with sole respect to HMRI confidentiality), 6.3, 6.4, 6.5, 6.6, 6.8, 9.1, 9.2, 10.3, 11.1, 11.2, 11.4, 11.5, 11.6, 12.5, 12.6, 12.7, 14.1 and 14.2, and the terms of Appendix D, which sections and appendix shall survive such termination. In addition, any other provision required to interpret and enforce the parties' rights and obligations under this License Agreement shall also survive, but only to the extent required for the full observation and performance of the surviving obligations under this License Agreement.

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11.4 Except as otherwise specifically provided for herein, termination, in whole or in part, of the License Agreement in accordance with the provisions hereof shall not limit remedies to the parties which may be otherwise available in law or equity, including consequential, incidental or indirect damages (such as loss of sales, profits, or goodwill) arising out of a party's performance or non-performance under this License Agreement.

11.5 Subject to Section 11.2 and other express provisions hereof, upon early termination of this License Agreement in its entirety due to breach hereof by TITAN and pursuant to Sections 10.1, 10.2 or 11.6, TITAN's rights in COMPOUND and PRODUCT shall cease, TITAN, its AFFILIATES and SUBLICENSEES shall cease manufacture, development, marketing and sale of COMPOUND and PRODUCT in the TERRITORY, and all originals and copies of KNOW-HOW, data, results and other information collected and/or generated by TITAN, its AFFILIATES and SUBLICENSEES relating to COMPOUND or PRODUCT prior to termination shall be delivered to HMRI within thirty (30) days thereafter, except for one copy thereof which may be retained in TITAN's legal files solely for the purpose of establishing the extent of its obligations hereunder. Any IND or other regulatory filing effected prior to termination shall be assigned by TITAN to HMRI (or its designee(s)), at HMRI's request and expense, if not already assigned to HMRI. TITAN shall provide to HMRI, within one (1) month of HMRI's request, copies of all regulatory correspondence, including, but not limited to, IND Information Amendments, IND Reports, IND Safety Reports, NDA submission, NDA Postmarketing Reports, and reports of written/phone contacts to/from regulatory agencies, as well as the safety database for PRODUCT.

11.6 If (a) TITAN is precluded from selling COMPOUND or PRODUCT in a particular country(ies) in the TERRITORY by virtue of infringement of THIRD PARTY patent rights, or (b) there is a holding of invalidity or unenforceability of any PATENT, from which no

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further appeal can be taken, that materially affects TITAN's ability to commercialize COMPOUND or PRODUCT in a particular country(ies) in the TERRITORY, TITAN shall have the right (but not the obligation) to terminate this License Agreement in such country(ies). At TITAN's option, this License Agreement may be terminated in its entirety if the events described in subsection (a) or (b) of this Section 11.6 occur in the United States, the EUROPEAN UNION and/or Japan. Within ninety (90) days of any such termination, HMRI shall repay to TITAN: (i) if the License Agreement has been terminated in its entirety, all upfront license fees and milestone payments (including in the form of TITAN common stock) it has received from TITAN up to the date of termination and (ii) if the License Agreement has been terminated only with respect to certain country(ies), the parties shall negotiate in good faith what portion of the upfront license fees and milestone payments HMRI has received from TITAN up to such date shall be repaid to TITAN. If the parties are unable to agree on such portion within ninety (90) days, the issue shall be submitted for determination by arbitration in accordance with Section 14.2.

12. WARRANTIES, INDEMNIFICATIONS AND REPRESENTATIONS

12.1 (a) HMRI represents and warrants that to the best of its knowledge at the date of this License Agreement, all currently issued or pending patents and patent applications owned or controlled by HMRI or its AFFILIATES claiming the COMPOUND or PRODUCT are listed in Appendix A. If HMRI becomes aware of any patents or patent applications owned or controlled by HMRI or its AFFILIATES claiming COMPOUND or PRODUCT or manufacture, formulation or use thereof not listed in Appendix A and is within the rights granted to TITAN in this License Agreement, such patents

and patent applications shall be added to Appendix A at no cost to TITAN. HMRI further represents and warrants that HMRI owns or controls the entire right, title and interest in PATENTS and

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KNOW-HOW, and HMRI has the legal power, right and authority to enter into this License Agreement.

(b) TITAN represents and warrants that (i) TITAN has the legal power, right and authority to issue its common stock to HMRI and when issued, such stock shall be validly issued, fully paid and nonassessable, and (ii) TITAN has the legal power, right and authority to enter into this License Agreement.

12.2 Nothing in this License Agreement shall be construed as a warranty that PATENTS are valid or enforceable or that their exercise does not infringe any patent rights of THIRD PARTIES. HMRI hereby represents and warrants that it has no present knowledge that (i) PATENTS are invalid or unenforceable, (ii) the exercise of PATENTS infringes any patent rights of THIRD PARTIES, and (iii) THIRD PARTY licenses are necessary for the development, manufacture or commercialization of COMPOUND or PRODUCT. A holding of invalidity or unenforceability of any PATENT, from which no further appeal is or can be taken, shall not affect any obligation already accrued hereunder, but shall only eliminate future royalties otherwise due under such PATENT from the date such holding becomes final.

12.3 Each party represents to the other that it is not currently debarred, suspended or otherwise excluded by any U.S. Government agencies from receiving federal contracts.

12.4 TITAN agrees that during the term of this License Agreement TITAN or an AFFILIATE or SUBLICENSEE shall not license, develop, have developed, manufacture, have manufactured, sell or have sold any of the following compounds or products classified as an atypical antipsychotic: (i.e. Olanzapine, Sertindole, Seroquel, Ziprasadone, Risperidone); PROVIDED that such restriction shall not apply within the EEA. In the event that TITAN or an AFFILIATE or SUBLICENSEE undertakes any of the foregoing actions within the EEA, then HMRI may not

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terminate this License Agreement or seek damages or equitable remedies for such actions, but may at its option by notice to TITAN (i) terminate the EXCLUSIVE nature of the licenses granted pursuant to Article 2 hereof in the EEA, so that all use of PATENTS and KNOW-HOW in the EEA will thereafter be on a non-exclusive basis at a reduced royalty rate to be negotiated at such time of change in exclusivity, (ii) cease providing improvements to TITAN pursuant to Section 2.1(c); and/or (iii) require TITAN to prove to HMRI's reasonable satisfaction that the KNOW-HOW is not being used for such activities.

12.5 TITAN shall indemnify, defend and hold HMRI and its AFFILIATES harmless from and against any and all liabilities, claims, demands, damages, costs, expenses, fines, penalties or money judgments including without limitation court costs and reasonable attorney's fees (hereinafter referred to as "Liabilities"), during the term of this License Agreement and after its expiration or termination, incurred by or rendered against HMRI and its AFFILIATES which arise out of the clinical testing, use or labeling, or the manufacture, processing, packaging, sale or distribution of COMPOUND or PRODUCT (as the case may be) by TITAN its AFFILIATES and SUBLICENSEES, or the breach of this License Agreement by TITAN (including without limitation any breach of TITAN's representations and warranties under this License Agreement) or any negligence or misconduct of TITAN, except to the extent that such Liabilities are directly attributable to the breach of this License Agreement by HMRI (including without limitation any breach of HMRI's representations or warranties under this License Agreement) or any negligence or misconduct by HMRI. TITAN shall also indemnify, defend and hold HMRI and its AFFILIATES harmless from and against any and all Liabilities incurred by or rendered against HMRI and its AFFILIATES which arise out of the COMPOUND or PRODUCT supplied by TITAN to HMRI and for use pursuant to Section 2.1(c).

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12.6 HMRI shall indemnify, defend and hold TITAN, its AFFILIATES and SUBLICENSEES harmless from and against any and all Liabilities (as defined in Section 12.5 hereof), incurred by or rendered against TITAN, its AFFILIATES and SUBLICENSEES, which arise out of the breach of this License Agreement by HMRI (including without limitation any breach of HMRI's representations or warranties under this License Agreement), or any negligence or misconduct by HMRI, except

to the extent that such Liabilities are directly attributable to the breach of this License Agreement by TITAN (including without limitation any breach of TITAN's representations and warranties under this License Agreement), or any negligence or misconduct by TITAN. HMRI shall also indemnify, defend and hold TITAN, its AFFILIATES and SUBLICENSEES harmless from and against any and all Liabilities incurred by or rendered against TITAN and its AFFILIATES and SUBLICENSEES which arise out of the manufacture, use or sale of COMPOUND and PRODUCT that has been manufactured or sold by or on behalf of HMRI and its AFFILIATES or SUBLICENSEES in those countries where TITAN's license rights hereunder have been terminated (including the clinical testing, use and labeling of PRODUCT and the manufacture, processing, packaging, sale or distribution of PRODUCT by HMRI and its AFFILIATES and SUBLICENSEES); the manufacture, use or sale of COMPOUND and PRODUCT that has been manufactured or sold by or on behalf of HMRI and its AFFILIATES or SUBLICENSEES for uses outside the FIELD; human, clinical studies (Phase I/II) conducted by or on behalf of HMRI and its AFFILIATES prior to this License Agreement; the COMPOUND or PRODUCT supplied by HMRI to TITAN under Article 7 hereof; use of COMPOUND or PRODUCT pursuant to Section 2.1(c) other than for in vitro and lab animal studies.

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12.7 Each party shall give the other prompt notice in writing of any claim or demand referred to in Sections 12.5 or 12.6. In addition, the obligations of any indemnifying party shall be subject to the indemnified party fulfilling the following obligations:

(a) With respect to third party claims, indemnified party shall fully cooperate with the indemnifying party in the defense of such claim or demand which defense shall be controlled by the indemnifying party; and

(b) With respect to third party claims, indemnified party shall not, except at its own cost, voluntarily make any payment or incur any expense with respect to any claim, demand or suit (including without limitation retaining its own counsel) without the prior written consent of the indemnifying party, which such party shall not be required to give.

13. FORCE MAJEURE

13.1 If the performance of any part of this License Agreement by either party, or if any obligation under this License Agreement, is prevented, restricted, interfered with or delayed by reason of any cause beyond the reasonable control of the party required to perform, , the party so affected, upon giving written notice and written evidence of such force majeure to the other party, shall be excused from such performance to the extent of such prevention, restriction, interference or delay, provided that the affected party shall use its reasonable commercial efforts to avoid or remove such causes of non-performance and shall continue performance with the utmost dispatch whenever the force majeure is removed. In the event of a force majeure, the parties shall also discuss whether modification of the terms of this License Agreement are necessary to alleviate the hardship or loss caused by the force majeure.

14. GOVERNING LAW AND ARBITRATION

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14.1 This License Agreement shall be deemed to have been made in the State of New York and its form, execution, validity, construction and effect shall be determined in accordance with the laws of the State of New York (without regard to New York's or any other jurisdiction's choice of law principles).

14.2 In the event of any controversy or claim arising out of or relating to any provision of this License Agreement, the parties shall try to settle their differences amicably between themselves. Any unresolved disputes arising between the parties relating to, arising out of or in any way connected with this License Agreement or any term or condition hereof, or the performance by either party of its obligations hereunder, whether before or after termination of this License Agreement, shall be resolved by final and binding arbitration. Whenever a party shall decide to institute arbitration proceedings, it shall give written notice to that effect to the other party. Except in the case of a determination to be made where payments are to be made to by one party to the other, the party giving such notice shall refrain from instituting the arbitration proceedings for a period of sixty (60) days following such notice to allow the parties time to further attempt to come to an amicable resolution of the dispute. Arbitration shall be held in New York City, New York according to the commercial rules of the American Arbitration Association ("AAA"). The arbitration will be conducted by a panel of three arbitrators appointed in accordance with AAA rules; provided, however, that each party shall within thirty (30) days after the institution of the arbitration

proceedings appoint a party arbitrator, and the party-arbitrators shall select a neutral arbitrator, to be chairman of the arbitration panel, within thirty (30) days thereafter. If the party-arbitrators are unable to select a neutral within such period, the neutral shall be appointed in accordance with AAA rules. All arbitrator(s) eligible to conduct the arbitration must agree to render their opinion(s) within thirty (30) days of the final arbitration hearing. No arbitrator (nor the panel

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of arbitrators) shall have the power to award punitive damages under this License Agreement and such award is expressly prohibited. Decisions of the arbitrator(s) shall be final and binding on all of the parties. Judgment on the award so rendered may be entered in a court having jurisdiction thereof. In any arbitration pursuant to this License Agreement, the arbitrators shall interpret the express terms hereof and apply the laws of the State of New York. The losing party to the arbitration as determined by the arbitrators shall pay the costs of arbitration.

15. SEPARABILITY

15.1 In the event any portion of this License Agreement not material to the remaining portions shall be held illegal, void or ineffective, the remaining portions hereof shall remain in full force and effect.

15.2 If any of the terms or provisions of this License Agreement are in conflict with any applicable statute or rule of law, then such terms or provisions shall be deemed inoperative to the extent that they may conflict therewith and shall be deemed to be modified to conform with such statute or rule of law.

15.3 In the event that the terms and conditions of this License Agreement are materially altered as a result of Sections 15.1 or 15.2, the parties shall renegotiate the terms and conditions of this License Agreement so as to accomplish as nearly as possible the original intentions of the parties.

16. ENTIRE AGREEMENT

16.1 This License Agreement and the Appendices attached hereto, entered into as of the date written above, constitutes the entire agreement between the parties relating to the subject matter hereof and supersedes all previous writings and understandings, including without limitation the Letter of Intent between the parties, dated November 19, 1995 (except for Article II.A. thereof,

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which shall remain in effect), and the Confidential Disclosure Agreement between the parties, dated June 26, 1996. No terms or provisions of this License Agreement shall be varied or modified by any prior or subsequent statement, conduct or act of either of the parties, except that the parties may amend this License Agreement by written instruments specifically referring to and executed in the same manner as this License Agreement.

17. NOTICES

17.1 Any notice required or permitted under this License Agreement shall be in writing and in English and shall be sent by airmail, postage pre-paid, or facsimile or courier to the following address of each party or to such other address as may be designated in writing by the respective parties:

If to HMRI: Hoechst Marion Roussel, Inc.
Route 202-206
P.O. Box 6800
Bridgewater, NJ 08807-0800
Attention: Andrew J. Gorman
Director, Licensing and Alliances
Telephone: (908) 231-3166
Facsimile: (908) 231-3730

With copies to: Hoechst Marion Roussel, Inc.
10236 Marion Park Drive
Kansas City, Missouri
Attention: Vice President, General
Counsel, North America
Telephone: (816) 966-4072
Facsimile: (816) 966-2756

and

Hoechst Marion Roussel, Inc.
Bridgewater Center
Route 202-206
Bridgewater, New Jersey 08807-0800
Attention: Vice President, General Counsel
Telephone: (908) 231-3537
Facsimile: (908) 231-2243

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If to TITAN: Titan Pharmaceuticals, Inc.
400 Oyster Point Blvd., Suite 505
South San Francisco, CA 94080
Attention: Dr. Louis R. Bucalo, M.D.
President & CEO
Telephone: (415) 244-4990
Facsimile: (415) 244-4956

With copies to: Titan Pharmaceuticals, Inc.
400 Oyster Point Blvd., Suite 505
South San Francisco, CA 94080
Attention: Sunil R. Bhonsle
Executive V.P. & COO
Telephone: (415) 244-4990
Facsimile: (415) 244-4956

and

Heller Ehrman White & McAuliffe
525 University Avenue
Palo Alto, CA 94301-1900
Attention: Neil Flanzraich, Esq.
Telephone: (415) 324-7118
Facsimile: (415) 324-0638

17.2 Any notice required or permitted to be given concerning this License Agreement shall be effective upon receipt by the party to whom it is addressed.

18. ASSIGNMENT

18.1 This License Agreement or any portions thereof and the licenses herein granted shall be binding upon and inure to the benefit of the successors in interest and assignees of the respective parties.

18.2 TITAN may assign this License Agreement to an AFFILIATE and in such event TITAN will continue to guarantee the obligations of such AFFILIATE hereunder, unless otherwise approved by HMRI, which approval shall not be unreasonably withheld. TITAN may also assign this License Agreement to a special purpose accelerated research corporation (SPARC), or

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similar entity in which TITAN retains rights to reacquire all or a majority of the special purpose corporation or rights provided for under the License Agreement or retains the primary responsibility for completing the development and/or commercialization of COMPOUND and/or PRODUCT.

18.3 In the event of a consolidation, merger or acquisition which involves a change in the control of TITAN, the License Agreement shall remain in full force and effect, and TITAN agrees to notify HMRI pursuant to Section 10.4. Consolidation, mergers and/or acquisitions to which TITAN is a party which do not involve a change in control of TITAN shall not require such notice.

18.4 In order for any assignment by TITAN of this License Agreement (which is permitted by this License Agreement) to be valid, the assignee of such assignment shall assume and agree to be bound by the provisions hereof.

19. FAILURE TO ENFORCE

19.1 The failure of either party to enforce at any time any provisions hereof shall not be construed to be a waiver of such provision nor of the right of such party thereafter to enforce each and every such provision.

20. NO AGENCY

20.1 Except as expressly set forth in this License Agreement, nothing in this License Agreement authorizes either party to act as agent for the other

or, as to any third party, to indicate or imply the existence of any such agency relationship. The relationship between the parties is that of independent contractors.

21. FURTHER ASSURANCES

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21.1 Each party hereto agrees to execute, acknowledge and deliver such further instruments, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of this License Agreement.

22. CAPTIONS

22.1 Captions are inserted for convenience only and in no way are to be construed to define, limit or affect the construction or interpretation hereof.

23. MISCELLANEOUS

23.1 Both parties agree to discuss matters arising during the term of this License Agreement in the spirit of cooperation and good faith and endeavor to resolve any differences by mutual agreement whenever possible. If the parties fail to reach agreement, either party may submit the matter for resolution pursuant to Section 14.2.

23.2 TITAN covenants to HMRI that during the term of this License Agreement TITAN, its AFFILIATES and SUBLICENSEES shall not violate the Federal Foreign Corrupt Practices Act in the performance of its negotiations hereunder.

IN WITNESS WHEREOF, the parties, through their authorized officers, have executed this License Agreement as of the date first written above.

HOECHST MARION ROUSSEL INC.

TITAN PHARMACEUTICALS, INC.

By: /s/

By: /s/

Name: Michael A. Yeomans, Ph.D.
Title: Vice President, Licensing
and Alliances

Name: Louis R. Bucalo, M.D.
Title: President & CEO

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Appendix A
PATENTS AND PATENT APPLICATIONS (PER SECTION 1.12)

<TABLE>
<CAPTION>

COUNTRY	PATENT APPL. NO.	FILING DATE	TYPE	STATUS	PATENT NO.	ISSUE DATE	EXPIRATION DATE
<S> US	<C> 07/354,411	<C> 05/19/89	<C>	<C> abandoned	<C>	<C>	<C>
US	07/456,790	12/29/89	CIP +	abandoned			
EP	90/09208.0	05/16/90		granted	0 402 644 B1	08/16/95	05/16/2010
Austria	55770/90	05/22/90		issued	640,653	09/02/93	05/22/2010
Canada	2,017,193-6	05/18/90					
China	90103721.4	05/19/90					
Czech Republic	2425-90	05/17/90					
Finland	902449	05/17/90					
Hungary	3090/90	05/18/90					
Israel	94425	05/17/90					
Japan	127090/90	05/18/90		issued	1931594	02/16/95	05/18/2010

Korea	90/7102	05/18/90					
Mexico	20787	05/18/90					
Norway	P902214	05/18/90		177301	08/23/95		05/18/2010
Philippines	40530	05/17/90					
Poland	P-285247	05/18/90		163965	12/09/93		
Russia	4743876/04	05/18/90					

US	07/619,825	11/29/90	continuation	abandoned			
US	07/944,705	09/05/91	continuation	abandoned			
US	07/788,269	11/05/91	CIP	abandoned			
US	07/969,383	10/30/92	CIP	issued	5,364,866	11/15/94	11/15/2011
PCT	92/09276	11/04/92		WO/93/09102			
EP	92/924151.1	11/04/92					
EP (PT)	92/118992.5	11/05/92					
Austria	30570/92	11/04/92					
Belarus	1715	11/04/92					
Canada	2,121,253	11/04/92					
Czech Republic	PV 1102-94	11/04/92					
Finland	942052	11/04/92					

</TABLE>
<TABLE>
<CAPTION>

COUNTRY	PATENT APPL. NO.	FILING DATE	TYPE	STATUS	PATENT NO.	ISSUE DATE	EXPIRATION DATE
<S> Georgia	<C> 001977	<C> 11/04/92	<C>	<C>	<C>	<C>	<C>
Hungary	P9401316	11/04/92					
Israel	103622	11/03/92					
Japan	5-508591	11/04/92					
Korea	94-701524	11/04/92					
Kazakhstan	941593.1	11/04/92					
Mexico	926370	11/05/92					
Norway	941647	11/04/92					
New Zealand	245006	11/03/92			245006	05/17/96	11/03/2012
Philippines	45259	11/12/92					
Poland	P-303452	11/04/92					
Romania	9400761	11/04/92					
Russia	94028105.04	11/04/92					
Slovak Republic	PV 0456-94	11/04/92					
Taiwan	81108831	11/05/92					
Uzbekistan	9500706.1	11/04/92					

US	08/144,265	10/28/93	CIP	abandoned			
US	08/309,395	09/20/94	CIP**	pending			
US	08/329,000*	10/25/94	CIP**	allowed			
US	08/468,611	06/06/95	DIV**	pending			
PCT	94/12054	10/27/94			WO95/11680		
Canada	94/12054	10/27/94					
China	94194302.X	10/27/94					
Czech Republic	PV 1238-96	10/27/94					
Hungary	P/P 00576	06/29/95			211,853	11/05/95	06/29/2015
Indonesia	951058	06/08/95					
Ireland	94/12054	10/27/94					
Israel	111,498	10/27/94					
Japan	512724/1995	10/27/94					

</TABLE>

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<TABLE>

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COUNTRY	PATENT APPL. NO.	FILING DATE	TYPE	STATUS	PATENT NO.	ISSUE DATE	EXPIRATION DATE
<S>	<C>	<C>	<C>	<C>	<C>	<C>	<C>
Korea	96-702162	10/27/94					
Mexico	94 8405	10/27/94					
Norway	p961686	10/27/94					
New Zealand	275941	10/27/94					
Poland	P314135	10/27/94					
Romania	96-00888	10/27/94					
Russia	96110214	10/27/94					
Taiwan	83110396	11/10/94					
South Africa	95/2653	10/28/94					

</TABLE>

*subject to a 60 way restriction requirement; 329,000 survived as one to the 60 divisionals

**pending as one of the 60 divisionals

+ CIP (Continuation-in-part)

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APPENDIX B

MAJOR METABOLITES (PER SECTION 1.5)

<TABLE>

<CAPTION>

COMPOUND NO.	NAME	R1	R2	R3
<S>	<C>	<C>	<C>	<C>
P88 8991	4-[3-[4-(6-fluoro-1,2-benzisoxazol-3-yl)-1-piperidinyl]propoxy]-3-methoxy- A-methyl-benzenemethanol	H	CH(OH)CH3	OCH3
P89 9124	1-[4-[3-[4-(6-fluoro-1,2-benzisoxazol-3-yl)-1-piperidinyl]propoxy]-3-hydroxyphenyl]-ethanone	H	C(O)CH3	OH

P94 11840	1-[4-[3-[4-(6-fluoro-1,2-benzisoxazol-3-yl)-1-piperidinyl]propoxy]-3-methoxyphenyl]-2-hydroxyethanone	H	C(O)CH2OH	OCH3
P89 9430	4-[3-[4-(6-fluoro-1,2-benzisoxazol-3-yl)-1-piperidinyl]propoxy]-3-hydroxy-a-methylbenzenemethanol	H	CH(OH)CH3	OH
P94 11677	4-[3-[4-(6-fluoro-1,2-benzisoxazol-3-yl)-1-piperidinyl]propoxy]-2-hydroxy-5-methoxy-a-methylbenzenemethanol	OH	CH(OH)CH3	OCH3
P94 11679	1-[4-[3-[4-(6-fluoro-1,2-benzisoxazol-3-yl)-1-piperidinyl]propoxy]-2-hydroxy-5-methoxyphenyl]ethanone	OH	C(O)CH3	OCH3
P94 11702	1-[4-[3-[4-(6-fluoro-1,2-benzisoxazol-3-yl)-1-piperidinyl]propoxy]-2,5-dihydroxyphenyl]-ethanone	OH	C(O)CH3	OH

</TABLE>

The information below marked by * and [] has been omitted pursuant to a request for confidential treatment. The omitted portion has been separately filed with the Commission.

APPENDIX C

[*]

APPENDIX D

STOCK REGISTRATION RIGHTS GRANTED BY TITAN TO HMRI (PER SECTION 3.1)

1. DEFINITIONS.

As used in this Appendix D:

- (a) "SECURITIES ACT" means the Securities Act of 1933, as amended.
- (b) "EXCHANGE ACT" means the Securities Exchange Act of 1934, as amended.
- (c) "HMRI" means Hoechst Marion Roussel, Inc.
- (d) "LICENSE AGREEMENT" means the Worldwide License Agreement between Hoechst Marion Roussel, Inc., and Titan Pharmaceuticals, Inc., effective December 31, 1996.
- (e) "REGISTRABLE SECURITIES" means the Common Stock of TITAN issuable or issued to HMRI pursuant to the LICENSE AGREEMENT or in exchange for or in replacement of any of such shares.
- (f) "SEC" means the United States Securities and Exchange Commission.
- (g) "TITAN" means Titan Pharmaceuticals, Inc.

2. DEMAND REGISTRATION

If at any time at least eight (8) months after the date HMRI becomes entitled to receive any REGISTRABLE SECURITIES pursuant to the License Agreement, HMRI requests in writing that any shares of such REGISTRABLE SECURITIES be registered under the SECURITIES ACT for resale to the public by HMRI, TITAN shall take all necessary action to effect such registration in accordance with the provisions of this Appendix; provided, however, that TITAN shall not be required to cause any such registration to become effective as to any specific REGISTRABLE SECURITIES sooner than nine (9) months after the date HMRI becomes entitled to receive such REGISTRABLE SECURITIES.

TITAN's obligation to effect a registration pursuant to this Section 2 shall be limited to a total of three occasions, once for each payment by TITAN of a license fee under the License Agreement, which is comprised, in part, of REGISTRABLE SECURITIES.

APPENDIX D (Cont.)

3. TITAN REGISTRATION

If (but without any obligation to do so) TITAN proposes to register (including for this purpose a registration effected by TITAN for stockholders other than HMRI) any of its stock or other securities under the SECURITIES ACT in connection with the public offering of such securities (other than a

registration relating solely to the sale of securities to participants in a Company plan for employees, a registration relating solely to a Rule 145 transaction, a registration on any form which does not include substantially the same information as would be required to be included in a registration statement for the sale of the REGISTRABLE SECURITIES or a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities which are also being registered), TITAN shall, at such time, promptly give HMRI written notice of such registration. Upon HMRI's request given within twenty (20) days after mailing of such notice by TITAN, TITAN shall, subject to the provisions of Section 8, cause to be registered under the SECURITIES ACT all of the REGISTRABLE SECURITIES that HMRI requests be included in such registration.

4. OBLIGATIONS OF TITAN

Whenever required under this Appendix to effect the registration of any REGISTRABLE SECURITIES, TITAN shall, as expeditiously as reasonably possible:

(a) Not more than 30 days after receiving a registration request under Section 2 hereof, prepare and file with the SEC a registration statement on Form S-3 (or another applicable Form if TITAN is ineligible to use Form S-3) to register the offering and sale of such REGISTRABLE SECURITIES on a delayed or continuous basis under SEC Rule 415 and to use its best efforts to cause such registration statement to become effective as promptly as possible and to remain effective until all shares registered thereby either have been sold or surrendered to TITAN pursuant to Section 3.1 of the License Agreement, or have become eligible for sale within a three-month period pursuant to the provisions of SEC Rule 144.

Notwithstanding the foregoing, TITAN may defer for an additional thirty (30) days the filing of any registration statement provided for under Section 2 hereof if the Board of Directors of TITAN, in its good faith judgment made after receipt of HMRI's request for registration, determines that it would be seriously detrimental to TITAN and its shareholders to effect the registration at that time. In any such case, TITAN shall furnish to HMRI a certificate signed by the President of TITAN setting forth the Board's determination. The Company shall not utilize this deferral right more than once annually, and any exercise of this right by TITAN shall not extend the time period during which the proceeds of sales of REGISTRABLE SECURITIES are offset against TITAN's obligations to make cash payments to HMRI under Section 3.1 of the LICENSE AGREEMENT.

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APPENDIX D (Cont.)

(b) Prepare and file with the SEC such amendments and supplements to any registration statement hereunder and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the SECURITIES ACT with respect to the disposition of all securities covered by such registration statement.

(c) Furnish to HMRI such numbers of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the SECURITIES ACT, and such other documents as HMRI may reasonably request in order to facilitate the disposition of the REGISTRABLE SECURITIES.

(d) Use its best efforts to register and qualify the securities covered by such registration statement under such other securities or blue sky laws of such jurisdictions as shall be reasonably requested by HMRI; provided that TITAN shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service a process in any such states or jurisdictions, unless TITAN is already subject to service in such jurisdiction and except as may be required by the SECURITIES ACT.

(e) In the event of any underwritten public offering under Section 3, enter into and perform its obligations under an underwriting agreement, in the usual and customary form, with the managing underwriter of the offering. HMRI shall also enter into and perform its obligations under such an agreement.

(f) During any period when a prospectus relating thereto is required to be delivered under the SECURITIES ACT, notify HMRI promptly of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes any untrue statement of a material fact or omits to state a material fact required to be stated therein or any fact necessary to make the statements therein not misleading in the light of the circumstances then existing. Upon receipt of such notification, HMRI shall forthwith discontinue disposition of REGISTRABLE SECURITIES pursuant to the registration statement covering the same until receipt of a supplemental or

amended prospectus from TITAN, and, if so directed by TITAN, deliver to TITAN at TITAN's expense all copies in HMRI's possession of the prospectus covering REGISTRABLE SECURITIES that was in effect prior to the amendment or supplementation.

(g) Cause all REGISTRABLE SECURITIES registered pursuant hereto to be listed on each securities exchange (or listed for quotation on each automated quotation system such as the NASDAQ Stock Market) on which similar securities issued by TITAN are then listed.

(h) Provide a stock transfer agent and registrar for all REGISTRABLE SECURITIES registered hereunder and a CUSIP number for all such REGISTRABLE SECURITIES, in each case not later than the effective date of such registration.

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APPENDIX D (Cont.)

5. FURNISH INFORMATION

It shall be a condition precedent to the obligations of TITAN to take any action pursuant to this Appendix with respect to any REGISTRABLE SECURITIES that HMRI shall furnish to TITAN in writing (and stated to be specifically for inclusion in the related registration statement or prospectus) such information regarding itself, the REGISTRABLE SECURITIES, and the intended method of disposition of such securities as shall be required to effect the registration of such REGISTRABLE SECURITIES and to permit TITAN to comply with all applicable requirements of the SEC, any blue sky laws or other applicable legal requirements.

6. EXPENSES OF REQUESTED REGISTRATION

All expenses other than brokerage commissions incurred in connection with registrations, filings or qualifications pursuant to Section 2 hereof, including (without limitation) all registration, filing and qualification fees, printing and accounting fees, and the fees and disbursements of counsel for TITAN, shall be borne by TITAN; provided, however, that TITAN shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 2 if the registration request is subsequently withdrawn at the request of HMRI, in which case HMRI shall bear such expenses unless such withdrawal is based upon material adverse information relating to TITAN that is different from information known or available (upon request from TITAN or otherwise) to HMRI at the time of HMRI's request for registration.

7. EXPENSES OF COMPANY REGISTRATION

The Company shall bear and pay all expenses incurred in connection with any registration, filing or qualification of REGISTRABLE SECURITIES pursuant to Section 3 hereof, including (without limitation) all registration, filing, and qualification fees, printing and accounting fees relating or apportionable thereto and the reasonable fees and disbursements of outside counsel for HMRI, but excluding underwriting discounts and commissions relating to REGISTRABLE SECURITIES.

8. UNDERWRITING REQUIREMENTS

In connection with any offering under Section 3 hereof involving an underwriting of shares of TITAN's capital stock, TITAN shall not be required to include any of HMRI's REGISTRABLE SECURITIES in such underwriting unless HMRI accepts the terms of the underwriting as agreed upon between TITAN and the underwriters selected by it (or by other persons entitled to select the underwriters), and then only in such quantity as the underwriters determine in their sole discretion will not jeopardize the success of the offering by TITAN. If the total amount of securities, including REGISTRABLE SECURITIES, requested by stockholders to be included in such offering exceeds the amount of securities sold other than by TITAN that the underwriters determine in their sole discretion is compatible with the success of the offering, then TITAN shall be required to include

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APPENDIX D (Cont.)

in the offering only that number of such securities, including REGISTRABLE SECURITIES, that the underwriters determine in their sole discretion will not jeopardize the success of the offering (the securities so included to be apportioned pro rata among the selling stockholders according to the total amount of securities entitled to be included therein owned by each selling stockholder or in such other proportions as shall mutually be agreed to by

such selling stockholders). For purposes of the preceding parenthetical concerning apportionment, for any selling stockholder that is a partnership or corporation, the partners, retired partners and stockholders of such holder, or the estates and family members of any such partners and retired partners and any trusts for the benefit of any of the foregoing persons shall be deemed a single "selling stockholder", and any pro-rata reduction with respect to such "selling stockholder" shall be based upon the aggregate amount of shares carrying registration rights owned by all entities and individuals included in such "selling stockholder", as defined in this sentence.

9. DELAY OF REGISTRATION

HMRI shall not have any right to obtain or seek an injunction restraining or otherwise delaying any registration under Section 3 hereof as the result of any controversy that might arise with respect to the interpretation or implementation of this Appendix.

10. INDEMNIFICATION

In the event any REGISTRABLE SECURITIES are included in a registration statement under this Appendix:

(a) To the extent permitted by law, TITAN will indemnify and hold harmless HMRI and each person, if any, who controls HMRI within the meaning of the SECURITIES ACT or the EXCHANGE ACT, against any losses, claims, damages, or liabilities (joint or several) to which they may become subject under the SECURITIES ACT or the EXCHANGE ACT, insofar as such losses, claims, damages, or liabilities (or actions in respect thereof) arise out of or are based upon any of the following statements, omissions or violations (collectively a "Violation"): (i) any untrue statement or alleged untrue statement of a material fact contained in such registration statement, including any preliminary prospectus or final prospectus contained therein and any amendments and supplements thereto, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or a fact necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by TITAN of the SECURITIES ACT, the EXCHANGE ACT, or any rule or regulation promulgated under the SECURITIES ACT or the EXCHANGE ACT, and TITAN will pay to HMRI and any such controlling person, as incurred, any legal or other expenses reasonably incurred by any of them in connection with investigating or defending any such loss, claim, damage, liability, or action; provided, however, that the indemnity agreement contained in this Section 10 shall not apply to amounts paid in settlement of any such loss, claim, damage, liability, or action if such settlement is effected without the consent of TITAN (which consent shall

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APPENDIX D (Cont.)

not be unreasonably withheld), nor shall TITAN be liable in any such case for any such loss, claim damage, liability, or action to the extent that it arises out of or is based upon a violation that occurs in reliance upon and in conformity with written information furnished expressly for use in connection with such registration by HMRI or any such controlling person.

(b) To the extent permitted by law, HMRI will indemnify and hold harmless TITAN, each of its directors, each of its officers who has signed the registration statement, each person, if any, who controls TITAN within the meaning of the SECURITIES ACT or the EXCHANGE ACT, any underwriter, any other stockholder selling securities under such registration statement, and any controlling person of any such underwriter or other stockholder, against any losses, claims, damages, or liabilities (joint or several) to which any of the foregoing persons may become subject under the SECURITIES ACT or the EXCHANGE ACT insofar as such losses, claims, damages, or liability (or actions in respect thereto) arise out of or are based upon any Violation, in each case to the extent (and only to the extent) that such Violation occurs in reliance upon and in conformity with written information furnished by HMRI expressly for use in connection with such registration; and HMRI will pay, as incurred, any legal or other expenses reasonably incurred by any person intended be indemnified pursuant to this subsection 10(b) in connection with investigating or defending any such loss, claim, damage, liability or action; provided, however, that the indemnity agreement contained in this subsection 10(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability, or action if such settlement is effected without the consent of HMRI, which consent shall not be unreasonably withheld; provided, that, in no event shall HMRI's liability under this subsection 10(b) exceed the gross proceeds from the offering received by HMRI.

(c) Promptly after receipt by an indemnified party under this Section 10

of notice of the commencement of any action including any governmental action), such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 10, deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties who may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interest between such indemnified party and any other party represented by such counsel in such proceeding. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action, if prejudicial to its ability to defend such action, shall relieve such indemnifying party of any liability to the indemnified party under this Section 10, but the omission so to deliver written notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 10.

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APPENDIX D (Cont.)

(d) If the indemnification provided for in this Section 10 is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any loss, liability, claim, damage, or expense referred to therein, then the indemnifying party, in lieu of indemnifying such indemnified party hereunder, shall contribute to the amount paid or payable by such indemnified party as a result of such loss, liability, claim, damage, or expense in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other in connection with the statements or omissions that resulted in such loss, liability, claim, damage, or expense as well as any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with any underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) The obligations of TITAN and HMRI under this Section 10 shall survive the completion of any offering of REGISTRABLE SECURITIES in a registration statement under this Appendix, and otherwise.

11. ASSIGNMENT OF REGISTRATION RIGHTS

The rights to cause TITAN to register REGISTRABLE SECURITIES pursuant to this Appendix may be assigned (but only with all related obligations) by HMRI to a transferee or assignee of such securities who, after such assignment or transfer, holds at least 500,000 shares of REGISTRABLE SECURITIES (subject to appropriate adjustment for stock splits, stock dividends, combinations and other recapitalizations), provided: (a) TITAN is, within a reasonable time after such transfer, 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 assigned; (b) such transferee or assignee agrees in writing to be bound by and subject to the terms and conditions of this Appendix, including without limitation the provisions of Section 12 below; and (c) such assignment shall be effective only if immediately following such transfer the further disposition of such securities by the transferee or assignee is restricted under the SECURITIES ACT.

12. MARKET STANDOFF AGREEMENT

HMRI hereby agrees that, during the period of duration specified by TITAN and an underwriter of common stock or other securities of TITAN, following the effective date of a registration

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statement of TITAN filed under the SECURITIES ACT, HMRI shall not, to the extent requested by TITAN and such underwriter, directly or indirectly sell,

offer to sell, contract to sell (including without limitation, any short sale), grant any option to purchase, or otherwise transfer or dispose of (other than to donees who agree to be similarly bound) any securities of TITAN held by HMRI at any time during such period except common stock included in such registration; provided, however:

(a) that such market stand-off time period shall not exceed 90 days following the effective date of TITAN's registration statement to which it relates; and

(b) all officers and directors of TITAN and all five percent (5%) or greater stockholders of TITAN enter into substantially similar agreements.

In order to enforce the foregoing covenant, TITAN may impose stop-transfer instructions with respect to the REGISTRABLE SECURITIES (and the shares or securities of every other person subject to the foregoing restriction) until the end of such period.

Notwithstanding the foregoing, the obligations described in this Section 12 shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to an SEC Rule 145 transaction on Form S-4 or similar forms that may be promulgated in the future.

13. TERMINATION OF REGISTRATION RIGHTS

The right of HMRI to request registration or inclusion in any registration pursuant to this Appendix shall terminate when all payments required to be made under Section 3.1 of the LICENSE AGREEMENT have been made by TITAN and all shares of REGISTRABLE SECURITIES held by HMRI may be sold immediately under SEC Rule 144 during any three-month period.

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The information below marked by * and [] has been omitted pursuant to a request for confidential treatment. The omitted portion has been separately filed with the Commission.

APPENDIX E

[*]

APPENDIX F

HMRI DEVELOPMENT ACTIVITY TO EXTEND BEYOND THE TRANSITION PERIOD (PER SECTION 6.1)

1. HMRI Review of Final Toxicology Report(s) as Noted:

<u>Title / Description</u>	<u>Estimated Target Date</u>
Oral 24-month carcinogenicity study in mouse	4th Quarter 1997
Oral 24-month carcinogenicity study in rat	3rd Quarter 1997

2. HMRI Assisting TITAN's Production and Manufacturing (pursuant to Article 7):

- A. HMRI production and manufacturing staff shall be available to meet with TITAN and its THIRD PARTY contract manufacturer to discuss the efficient transfer of technology and KNOW-HOW necessary for the manufacture of COMPOUND and PRODUCT (pursuant to Section 7.1).
- B. By a time frame to be determined by January 30, 1997 (and agreed to by TITAN), HMRI shall carry out, in accordance with FDA standards, activities to qualify the HMR-Frankfurt production site as a GMP production site to allow for commercial use of the currently available bulk substance. HMRI and TITAN will meet to define together those technical activities necessary to qualify the bulk substance for commercial use and to develop a plan to complete those activities.
- C. HMRI shall provide the necessary C/M/C, production and manufacturing documents to support the NDA or an equivalent foreign submission by TITAN or its SUBLICENSEE.

3. Transfer of Supplies of Drug Substance, Bulk Tablets and Packaged Tablets of Product (pursuant to Article 7).

Supplies of drug substance, bulk tablets and packaged tablets of PRODUCT as specified by TITAN (Section 7.1(a)) shall be made available and transferred by HMRI to TITAN or to a THIRD PARTY, as specified by TITAN. The physical shipment of these supplies shall occur once TITAN has notified HMRI in writing that TITAN has contracted with a THIRD PARTY manufacturer, has secured adequate storage space for storing tablets and has notified the FDA that TITAN will be the sponsor of the IND.

APPENDIX F (Continued)

4. Exchange of Information (pursuant to Section 6.1).

HMRI shall promptly notify all HMRI (and/or AFFILIATES) employees to retain and make available to TITAN existing reports, files and information directly related and deemed necessary for the development of COMPOUND or PRODUCT.

5. HMRI shall archive all non-clinical drug screening documentation not transferred to TITAN.

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APPENDIX G

SPECIAL COUNTRIES IN TERRITORY REGARDING
HMRI'S PATENT PROTECTION (PER SECTION 8.2)

	United States		
PCT	Australia	Brazil	
	Canada	Bulgari	
	China	Kazakhstan	
	Czech Republic		
	EPO		
	Austria	Belgium	Iceland
	Denmark	Finland	
	France	Germany	
	Great Britain	Greece	
	Ireland	Italy	
	Latvia	Lithuania	
	Luxembourg	Monaco	
	Netherlands	Portugal	
	Slovenia	Spain	
	Sweden	Switzerland with Liechtenstein	
	Estonia	Turkey	
	Hungary	Romania	
	Israel	Singapore	
	Japan	Ukraine	
	Mexico		
	New Zealand		
	Norway		
	Poland		
	Russian		
	Slovakia		
	South Korea		
Non-PCT	Argentina		
	South Africa		
	Taiwan		
	Egypt		
	Chile		
	Venezuela		
	Indonesia		
	Saudi Arabia		
	Philippines		

APPENDIX G (Continued)

Thailand
India
Hong Kong
Malaysia

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August 9, 1996

PERSONAL AND CONFIDENTIAL

Mr. Robert E. Farrell
41 Thunderbird Drive
Novato, CA 94949

Dear Bob:

It is with great pleasure that I would like to offer you the position of Executive Vice President and Chief Financial Officer of Titan Pharmaceuticals, Inc. This letter will serve to confirm the terms of your employment with Titan, such employment to begin September 16, 1996. If the terms discussed below are acceptable to you, please sign this confirmation letter where indicated and return it to me, retaining a copy for your records. As used herein, the term "Company" refers to Titan Pharmaceuticals, Inc.

1. COMPENSATION.

(a) SALARY. You will be paid a monthly salary of \$15,416.67, less applicable withholdings (\$185,000.00 annually) with a performance bonus of 0-20% based upon company performance and an annual review. All reasonable business expenses will be reimbursed so long as they are incurred in the ordinary course of business. You will be entitled to annual increases in your salary in accordance with Company policies at such time, in addition to an automatic cost of living increase based upon the rate of increase of the consumer price index. If any profit sharing plan is implemented for employees, you will be appropriately included in such plan.

(b) STOCK OPTIONS. Effective September 16, 1996, you will receive stock options to acquire 150,000 shares of Titan's Common Stock. All options granted will vest monthly over a five (5) year period, at a rate of twenty percent (20%) per year, subject to a requirement of at least 12 months of employment for vesting of any options. The option price will be the fair market price at the starting date of your employment. You will also be eligible for additional stock option bonuses based upon outstanding performance, as determined by the Board of Directors.

1 of 4

Robert E. Farrell
August 9, 1996

In the event of sale or transfer of substantially all of the assets of Titan, your options will automatically accelerate immediately prior to such event such that 100% of the option shares will be exercisable.

(c) HEALTH BENEFITS. Health insurance coverage for you and your family will be provided under the Company's group health plan. You will be entitled to all health and medical benefits as are provided to other employees. In addition, you will be entitled to participate in the Company's 401k plan and all other sponsored employee benefit plans as they are adopted by Titan.

(d) VACATION, HOLIDAYS AND SICK LEAVE. You will receive two (2) weeks of paid vacation per year. Sick leave and holidays will be provided in accordance with the Company's established policies.

2. TERMINATION. You or the Company may terminate the employment relationship at any time, for any reason, with or without good cause. However, if the Company terminates your employment without good cause, prior to twelve months from your start date, the Company will continue to provide the benefits described above in section 1.c., and pay your monthly salary on the regular bi-monthly basis for six (6) months from the date of your

termination, less all applicable withholdings. For any such termination without good cause occurring after twelve months from your start date, the Company will continue to provide the benefits described in section 1.c., and pay your monthly salary on a regular bi-monthly basis for nine (9) months from the date of termination, less all applicable withholdings, provided, however, that the employment salary received during this nine month period shall be subject to offset by other employment salary received during such period. For purposes of this Agreement, "good cause" means gross misconduct, wrongful acts or omissions that may materially adversely affect the Company's business, neglect of duties, breach of any material terms or conditions of this Agreement or the Company's Proprietary Information Agreement, death, or any disability that renders you incapable of diligently or expeditiously performing all of your essential duties and obligations to the Company for any period of three (3) consecutive months or four (4) months in any twelve (12) month period. However, in the event the Company terminates you at any time for good cause due to your death or disability as discussed above, the Company will continue to pay your monthly salary on the regular bi-monthly basis for six (6) months from the date of such termination, less all applicable withholdings.

2 of 4

Robert E. Farrell
August 9, 1996

3. **NON-COMPETE AND OUTSIDE ACTIVITIES.** You agree that, while serving as an employee of the Company, you will not engage in any activity which is competitive with the Company and will give your sole and only loyalty to the Company. It is understood that buying and selling of securities of any public company does not constitute a violation of this agreement.

4. **PROPRIETARY INFORMATION AND INVENTIONS AGREEMENT.** Your acceptance of this offer is contingent upon the execution of the Company's Proprietary Information and Inventions Agreements, copies of which are enclosed for your review and execution.

5. **ARBITRATION.** Any controversy between the parties hereto involving the construction or application of any terms, covenants or conditions of this Agreement, or any claims arising out of or relating to this Agreement or the breach thereof or with your employment with the Company or any termination of that employment, except with respect to prejudgment remedies, will be submitted to and settled by final and binding arbitration in San Francisco, California, in accordance with the Model Employment Dispute Resolution Rules of the American Arbitration Association (the "Rules") then in effect, any arbitrator shall be selected pursuant to such Rules and judgment upon the award rendered by the arbitrators may be entered in any court having jurisdiction thereof.

6. The Company will make no public announcement regarding your employment prior to September 16, 1996.

To accept this offer, please sign in the space below, indicating your acceptance and agreement to the terms contained herein. No amendment or modification of the terms of this letter will be valid unless made in writing and signed by you and an authorized officer of the Company.

3 of 4

Robert E. Farrell
August 9, 1996

Bob, on a personal note, I have enjoyed our interactions tremendously and look forward to working with you to make Titan a continued success. We would appreciate your response to this offer by August 14, 1996.

Sincerely,

/s/ Louis R. Bucalo
Louis R. Bucalo, M.D.
President and CEO

Titan Pharmaceuticals, Inc.

I accept this offer:

/s/ Robert E. Farrell

Robert E. Farrell

Date: 8/13/96

STATEMENT OF COMPUTATION OF NET LOSS PER SHARE

YEAR ENDED DECEMBER 31,

1995

1996

<i>Net loss</i>	\$ (11,693,454)	\$ (12,855,646)
<i>Deemed dividend upon conversion of preferred stock</i>	-	(5,431,871)
<i>Net loss applicable to common stock</i>	(11,693,454)	(18,287,517)
<i>Weighted average shares of common stock outstanding</i>	1,426,049	10,936,046
<i>Shares related to Staff Accounting Bulletin topic 4D:</i>		
<i>Stock options and warrants</i>	897,836	-
<i>Shares used in computing net loss per share</i>	2,323,885	10,936,046
<i>Net loss per share</i>	\$ (5.03)	\$ (1.67)

PRO FORMA

<i>Net loss applicable to common stock</i>	\$ (11,693,454)
<i>Calculation of shares outstanding for computing pro forma net loss per share:</i>	
<i>Shares used in computing net loss per share</i>	2,323,885
<i>Adjusted to reflect the effect of the assumed conversion of preferred stock</i>	5,293,585
<i>Shares used in computing pro forma net loss per share</i>	7,617,470
<i>Pro forma net loss per share</i>	\$ (1.54)

Exhibit 21

List of Significant Subsidiaries

Ansan Pharmaceuticals, Inc.

Ingenex, Inc.

ProNeura, Inc.

Theracell, Inc.

Trilex Pharmaceuticals, Inc.

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