

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549**

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**FORM 10-Q**

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**Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the quarterly period ended September 30, 2010.

or

**Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the Transition Period From \_\_\_\_\_ to \_\_\_\_\_.

Commission file number 000-27436

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**Titan Pharmaceuticals, Inc.**

(Exact name of registrant as specified in its charter)

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**Delaware**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**94-3171940**  
(I.R.S. Employer  
Identification No.)

**400 Oyster Point Blvd., Suite 505, South San Francisco, California 94080**

(Address of Principal Executive Offices, Including Zip Code)

**(650) 244-4990**

(Registrant's Telephone Number, Including Area Code)

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

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

\* The registrant has not yet been phased into the interactive data requirements.

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

Large accelerated filer

Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company)

Smaller reporting company

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

There were 59,247,742 shares of the Registrant's Common Stock issued and outstanding on November 12, 2010.

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**Titan Pharmaceuticals, Inc.**

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Part I. Financial Information

Item 1. Financial Statements

TITAN PHARMACEUTICALS, INC.  
CONDENSED CONSOLIDATED BALANCE SHEETS  
(in thousands)

	September 30, 2010 (unaudited)	December 31, 2009 (Note 1)
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 6,401	\$ 3,300
Accounts receivable	1,904	66
Prepaid expenses and other current assets	181	250
Total current assets	8,486	3,616
Property and equipment, net	61	110
Total assets	<u>\$ 8,547</u>	<u>\$ 3,726</u>
<b>Liabilities and Stockholders' Deficit</b>		
Current liabilities		
Accounts payable	\$ 1,730	\$ 335
Accrued clinical trials expenses	1,080	123
Other accrued liabilities	382	564
Current portion of long-term debt	1,394	525
Total current liabilities	4,586	1,547
Long-term debt, net of discount	6,113	2,386
Total liabilities	10,699	3,933
Commitments and contingencies		
Stockholders' deficit		
Common stock, at amounts paid-in	256,436	256,436
Additional paid-in capital	15,617	15,027
Accumulated deficit	(275,446)	(272,911)
Total stockholders' deficit attributable to the controlling interest	(3,393)	(1,448)
Non-controlling interest	1,241	1,241
Total stockholders' deficit	(2,152)	(207)
Total liabilities and stockholders' deficit	<u>\$ 8,547</u>	<u>\$ 3,726</u>

See Notes to Condensed Consolidated Financial Statements

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**TITAN PHARMACEUTICALS, INC.**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS**  
**(unaudited)**  
**(in thousands, except per share amount)**

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2010	2009	2010	2009
Revenue				
Grant revenue	\$ 3,203	\$ —	\$ 5,251	\$ —
Royalty revenue	396	—	2,104	—
License revenue	1	—	12	52
Total revenue	<u>3,600</u>	<u>—</u>	<u>7,367</u>	<u>52</u>
Operating expenses:				
Research and development	3,044	709	6,770	1,741
General and administrative	691	876	2,638	2,723
Total operating expenses	<u>3,735</u>	<u>1,585</u>	<u>9,408</u>	<u>4,464</u>
Loss from operations	(135)	(1,585)	(2,041)	(4,412)
Other income (expense):				
Interest income (expense), net	(124)	—	(364)	2
Other expense	(125)	(8)	(130)	(8)
Other expense, net	<u>(249)</u>	<u>(8)</u>	<u>(494)</u>	<u>(6)</u>
Net loss	<u>(384)</u>	<u>(1,593)</u>	<u>(2,535)</u>	<u>(4,418)</u>
Less: net loss attributable to the non-controlling interests	—	—	—	—
Net loss attributable to the controlling interest	<u>\$ (384)</u>	<u>\$ (1,593)</u>	<u>\$ (2,535)</u>	<u>\$ (4,418)</u>
Basic and diluted net loss per share	<u>\$ (0.01)</u>	<u>\$ (0.03)</u>	<u>\$ (0.04)</u>	<u>\$ (0.08)</u>
Weighted average shares used in computing basic and diluted net loss per share	<u>59,248</u>	<u>58,297</u>	<u>59,248</u>	<u>58,291</u>

See Notes to Condensed Consolidated Financial Statements

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**TITAN PHARMACEUTICALS, INC.**  
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**(in thousands)**  
**(unaudited)**

	<b>Nine Months Ended September 30,</b>	
	<b>2010</b>	<b>2009</b>
<b>Cash flows from operating activities:</b>		
Net loss	\$(2,535)	\$(4,418)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	69	136
Amortization of loan discount	22	—
Loss on disposal of assets	—	3
Gain on sale of investments	—	(9)
Share-based compensation	336	1,233
Changes in operating assets and liabilities:		
Accounts receivable	(1,838)	(141)
Prepaid expenses and other assets	69	337
Accounts payable and other accrued liabilities	2,170	(1,565)
Net cash used in operating activities	<u>(1,707)</u>	<u>(4,424)</u>
<b>Cash flows from investing activities:</b>		
Purchases of furniture and equipment	(20)	(10)
Disposals of furniture and equipment	—	2
Proceeds from maturities of marketable securities	—	9
Net cash provided by (used in) investing activities	<u>(20)</u>	<u>1</u>
<b>Cash flows from financing activities:</b>		
Issuance of common stock, net	—	476
Proceeds from long-term debt	5,000	—
Payments on long-term debt	(172)	—
Net cash provided by financing activities	<u>4,828</u>	<u>476</u>
<b>Net increase (decrease) in cash and cash equivalents</b>	3,101	(3,947)
Cash and cash equivalents at beginning of period	<u>3,300</u>	<u>4,672</u>
<b>Cash and cash equivalents at end of period</b>	<u>\$ 6,401</u>	<u>\$ 725</u>

See Notes to Condensed Consolidated Financial Statements

**TITAN PHARMACEUTICALS, INC.**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**(unaudited)**

**1. Organization and Summary of Significant Accounting Policies**

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

(1) Fanapt® (iloperidone), an atypical antipsychotic compound approved in the U.S. for the treatment of schizophrenia and being marketed in the U.S. by Novartis Pharma AG. We are entitled to a royalty of 8-10% on U.S. net sales of Fanapt.

(2) Probuphine™, a slow release implant formulation of buprenorphine that is capable of maintaining a stable, round the clock blood level of the medicine in patients for six months following a single treatment. Probuphine is in Phase 3 clinical development for the treatment of opioid addiction, and we are currently conducting a confirmatory Phase 3 clinical study, which is expected to be completed in early second quarter 2011 with study results available by mid second quarter 2011.

The ProNeura drug delivery technology underlying Probuphine has the potential to be used in developing products for the treatment of other chronic conditions where maintaining stable, round the clock blood levels of a drug can benefit the patient and improve medical outcomes (e.g. chronic pain, Parkinson’s disease).

We are directly developing our product candidates and also utilize resources provided through partnerships with other companies and government organizations. These collaborations have helped to fund product development and have enabled us to retain significant economic interest in our products. We operate in only one business segment, the development of pharmaceutical products.

***Basis of Presentation***

The accompanying unaudited condensed consolidated financial statements include the accounts of Titan Pharmaceuticals, Inc. and its subsidiaries after elimination of all significant intercompany accounts and transactions. These financial statements have been prepared in accordance with U.S. generally accepted accounting principles for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by U.S. generally accepted accounting principles for a complete financial statement presentation. In the opinion of management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation have been included. Operating results for the three and nine month periods ended September 30, 2010 are not necessarily indicative of the results that may be expected for the year ending December 31, 2010, or any future interim periods.

The balance sheet at December 31, 2009 has been derived from the audited financial statements at that date, but does not include all of the information and footnotes required by United States generally accepted accounting principles for complete financial statements. These unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and footnotes thereto for the year ended December 31, 2009 included in the Titan Pharmaceuticals, Inc. Registration Statement on Form 10/A, as filed with the Securities and Exchange Commission (“SEC”).

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

We have evaluated events that have occurred after September 30, 2010 and through the date that the unaudited financial statements were issued.

We expect to continue to incur substantial additional operating losses from costs related to the continuation of product and technology development, clinical trials, and administrative activities. We believe that our working capital at September 30, 2010, together with proceeds available from the two grants which were awarded by the National Institutes of Health (“NIH”) and the ongoing royalty revenues from sales of Fanapt will be sufficient to support the ongoing Phase 3 clinical study of Probuphine and operations into the second quarter of 2011.

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

**TITAN PHARMACEUTICALS, INC.**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**  
**(unaudited)**

*Controlling interest in Subsidiary*

At September 30, 2010, we owned 81% of Ingenex (assuming the conversion of all preferred stock to common stock). Ingenex is not an operating company and has no assets, and it is expected that it will be dissolved by year end 2010.

*Revenue Recognition*

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

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

- Collaborative arrangements typically consist of non-refundable and/or exclusive technology access fees, cost reimbursements for specific research and development spending, and various milestone and future product royalty payments. If the delivered technology does not have stand-alone value or if we do not have objective or reliable evidence of the fair value of the undelivered component, the amount of revenue allocable to the delivered technology is deferred. Non-refundable upfront fees with stand-alone value that are not dependent on future performance under these agreements are recognized as revenue when received, and are deferred if we have continuing performance obligations and have no evidence of fair value of those obligations. Cost reimbursements for research and development spending are recognized when the related costs are incurred and when collections are reasonably expected. Payments received related to substantive, performance-based “at-risk” milestones are recognized as revenue upon achievement of the clinical success or regulatory event specified in the underlying contracts, which represent the culmination of the earnings process. Amounts received in advance are recorded as deferred revenue until the technology is transferred, costs are incurred, or a milestone is reached.
- Technology license agreements typically consist of non-refundable upfront license fees, annual minimum access fees or royalty payments. Non-refundable upfront license fees and annual minimum payments received with separable stand-alone values are recognized when the technology is transferred or accessed, provided that the technology transferred or accessed is not dependent on the outcome of our continuing research and development efforts.
- Government grants, which support our research efforts in specific projects, generally provide for reimbursement of approved costs as defined in the notices of grants. Grant revenue is recognized when associated project costs are incurred.
- Royalties earned are based on third-party sales of licensed products and are recorded in accordance with contract terms when third-party results are reliably measurable and collectibility is reasonably assured. Pursuant to certain license agreements, we earn royalties on the sale of Fanapt™ by Novartis Pharma AG in the U.S. and Canada, and by Vanda Pharmaceuticals, Inc. in the rest of the world. As described in Note 5, Commitments and Contingencies, we are obligated to pay royalties on such sales to Sanofi-Aventis. As we have no performance obligations under the license agreements, we have recorded the royalties earned, net of royalties we are obligated to pay, as revenue in our consolidated statement of operations commencing with the nine month period ended September 30, 2010.

*Research and Development Costs and Related Accrual*

Research and development expenses include internal and external costs. Internal costs include salaries and employment related expenses, facility costs, administrative expenses and allocations of corporate costs. External expenses consist primarily of costs associated with outsourced clinical research organization activities, sponsored research studies, process development and product manufacturing expenses, product registration, patent application and prosecution, and investigator sponsored trials. We also record accruals for estimated ongoing clinical trial costs. Clinical trial costs represent costs incurred by clinical research organizations, (“CROs”), and clinical sites. These costs are recorded as a component of research and development expenses. Under our agreements, progress payments are typically made to investigators, clinical sites and CROs. We analyze the progress of the clinical trials, including levels of patient enrollment, invoices received and contracted costs when evaluating the adequacy of accrued liabilities. Significant judgments and estimates must be made and used in determining the accrued balance in any accounting period. Actual results could differ from those estimates under different assumptions. Revisions are charged to expense in the period in which the facts that give rise to the revision become known.

TITAN PHARMACEUTICALS, INC.

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

**Recent Accounting Pronouncements**

In April 2010, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update No. 2010-17 (“ASU 2010-17”), *Revenue Recognition - Milestone Method*, which provides a new guidance on the use of the milestone method of recognizing revenue for research and development arrangements under which consideration to be received by the vendor is contingent upon the achievement of certain milestones. ASU 2010-17 is effective for fiscal years, and interim periods within such fiscal years, beginning on or after June 15, 2010, with early adoption permitted. We are currently evaluating the potential impact, if any, of the adoption of this guidance on our financial position, results of operations and cash flows.

In February 2010, the FASB issued Accounting Standards Update No. 2010-09 (“ASU 2010-09”), *Subsequent Events, Amendments to Certain Recognition and Disclosure Requirements*, which clarifies certain existing evaluation and disclosure requirements in ASC 855 related to subsequent events. ASU 2010-09 requires SEC filers to evaluate subsequent events through the date on which the financial statements are issued and is effective immediately. The new guidance did not have an effect on our consolidated results of operations and financial condition.

In January 2010, the FASB issued Accounting Standards Update No. 2010-06 (“ASU 2010-06”), which amends the use of fair value measures and the related disclosures. ASU 2010-06 requires new disclosures for transfers in and out of Level 1 and Level 2 fair value measurements. ASU 2010-06 is effective for the quarter ended September 30, 2010. The adoption of this new standard did not have an impact on our consolidated financial statements.

In October 2009, the FASB issued Accounting Standards Update No. 2009-13 (“ASU 2009-13”), *Multiple-Deliverable Revenue Arrangements*, which eliminates the residual method of allocation, and instead requires companies to use the relative selling price method when allocating revenue in a multiple deliverable arrangement. ASU 2009-13 shall be effective in fiscal years beginning on or after June 15, 2010, with earlier application permitted. While we do not expect the adoption of this standard to have a material impact on our financial position or results of operations, this standard may have an impact in the event we enter into future collaborative or multiple-deliverable transactions or modify existing collaborative relationships.

**2. Stock Option Plans**

The following table summarizes the share-based compensation expense recorded for awards under the stock option plans for the three and nine month periods ended September 30, 2010 and 2009:

(in thousands, except per share amounts)	Three Months Ended September 30,		Nine Months Ended September 30,	
	2010	2009	2010	2009
Research and development	\$ 45	\$ 126	\$ 15	\$ 164
General and administrative	80	160	321	1,069
Total share-based compensation expenses	\$ 125	\$ 286	\$ 336	\$ 1,233
Increase in basic and diluted net loss per share	\$ (0.00)	\$ (0.01)	\$ (0.01)	\$ (0.02)

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

We use the Black-Scholes-Merton option-pricing model with the following assumptions to estimate the share-based compensation expense for the three and nine month periods ended September 30, 2010 and 2009:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2010	2009	2010	2009
Weighted-average risk-free interest rate	0.83%	0.35%	2.3%	0.4%
Expected dividend payments	—	—	—	—
Expected holding period (years) <sup>1</sup>	4.0	4.4	4.2	4.6
Weighted-average volatility factor <sup>2</sup>	1.93	1.84	1.89	1.84
Estimated forfeiture rates for options granted to management <sup>3</sup>	23%	21%	23%	21%
Estimated forfeiture rates for options granted to non-management <sup>3</sup>	41%	42%	41%	41%

- (1) Expected holding periods are based on historical data.
- (2) Weighted average volatility is based on the historical volatility of the Company’s common stock.
- (3) Estimated forfeiture rates are based on historical data.

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**TITAN PHARMACEUTICALS, INC.**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**  
**(unaudited)**

No options to purchase common stock were granted during the three month period ended September 30, 2010. Based upon the above methodology, the weighted-average fair value of options valued during the three month period ended September 30, 2009 was \$0.98.

The following table summarizes option activity for the nine month period ended September 30, 2010:

<u>(in thousands, except per share amounts)</u>	<u>Options</u>	<u>Weighted Average Exercise Price</u>	<u>Weighted Average Remaining Option Term</u>	<u>Aggregate Intrinsic Value</u>
Outstanding at January 1, 2010	6,070	\$ 3.68	6.42	\$ 4,794
Granted	150	2.36		
Exercised	—	—		
Expired or forfeited	(1,231)	9.19		
Outstanding at September 30, 2010	<u>4,989</u>	<u>\$ 2.28</u>	<u>6.31</u>	<u>\$ 528</u>
Exercisable at September 30, 2010	<u>3,523</u>	<u>\$ 2.79</u>	<u>5.32</u>	<u>\$ 304</u>

As of September 30, 2010 there was approximately \$0.9 million of total unrecognized compensation expense related to non-vested stock options. This expense is expected to be recognized over a weighted-average period of 2.7 years.

During the three months ended September 30, 2010, 82,800 shares of restricted stock were awarded. The following table summarizes restricted stock activity for the nine month period ended September 30, 2010:

<u>(in thousands, except per share amounts)</u>	<u>Shares</u>	<u>Weighted Average Fair Value</u>	<u>Weighted Average Remaining Contractual Term</u>	<u>Aggregate Intrinsic Value</u>
Outstanding at January 1, 2010	20	\$ 0.04	9.3	\$ 45
Awarded	119	—		
Exercised	—	—		
Cancelled	—	—		
Outstanding at September 30, 2010	<u>139</u>	<u>\$ 0.01</u>	<u>9.5</u>	<u>\$ 141</u>
Vested at September 30, 2010	<u>96</u>	<u>\$ 0.01</u>	<u>9.5</u>	<u>\$ 97</u>

As of September 30, 2010 there was approximately \$41,000 of total unrecognized compensation expense related to non-vested awards. This expense is expected to be recognized over a weighted-average period of 0.3 years.

### 3. Net Loss Per Share

We calculate basic net loss per share using the weighted average common shares outstanding for the periods presented. Diluted net income per share would include the impact of other dilutive equity instruments, primarily our options and warrants. For the periods ended September 30, 2010 and 2009, options and warrants totaled 11.8 million and 13.5 million shares, respectively. We reported net losses for the periods presented and, therefore, options and warrants were excluded from the calculation of diluted net loss per share as they were anti-dilutive.

### 4. Comprehensive Loss

Comprehensive loss is comprised of net loss and other comprehensive income or loss. There were no components of other comprehensive income or loss during the three and nine month periods ended September 30, 2010 and 2009. Comprehensive losses for the three and nine month periods ended September 30, 2010 were \$0.4 million and \$2.5 million, respectively, and for the three and nine month periods ended September 30, 2009 were \$1.6 million and \$4.4 million, respectively.

**TITAN PHARMACEUTICALS, INC.**

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

**5. Commitments and Contingencies**

*Legal Proceedings*

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

*Financing Agreements*

In September 2010, we amended our loan and security agreement with Oxford Capital Financing (“Oxford”) pursuant to which we received a thirty-nine month term loan in the principal amount of \$5,000,000 that bears interest at the rate of 13% per annum. We paid Oxford an initial facility fee of \$125,000 and are obligated to make a final payment fee of \$300,000. Commencing in October 2010, the loan is repayable in monthly interest payments of \$54,167 through July 2011 followed by monthly interest and principal installments of \$196,108 commencing in August 2011 through January 2014. The loan is secured by our assets and has a provision for pre-payment. We also issued to Oxford, in connection with the loan and security agreement, five-year warrants to purchase 287,356 shares of our common stock at an exercise price of \$0.87 per share. The relative fair value attributable to the warrants of \$254,580 was recorded as a discount to the debt and corresponding credit to additional paid-in capital. The debt discount is being amortized to interest expense over the life of the debt.

In December 2009, we entered into a loan and security agreement with Oxford pursuant to which we received a three-year term loan in the principal amount of \$3,000,000 that bears interest at the rate of 13% per annum. We paid Oxford an initial facility fee of \$60,000 and are obligated to make a final payment fee of \$180,000. Commencing in January 2010, the loan is repayable in monthly interest payments of \$32,500 through June 2010 followed by monthly interest and principal installments of \$117,625 commencing in July 2010 through December 2012. The loan is secured by our assets and has a provision for pre-payment. We also issued to Oxford, in connection with the loan and security agreement, five-year warrants to purchase 42,254 shares of our common stock at an exercise price of \$2.13 per share. The relative fair value attributable to the warrants of \$88,995 was recorded as a discount to the debt and corresponding credit to additional paid-in capital. The debt discount is being amortized to interest expense over the life of the debt.

*Royalty Payments*

In 1997, we entered into an exclusive license agreement with Sanofi-Aventis SA (formerly Hoechst Marion Roussel, Inc.). The agreement gave us a worldwide license to the patent rights and know-how related to the antipsychotic agent Fanapt (iloperidone), including the ability to develop, use, sublicense, manufacture and sell products and processes claimed in the patent rights. Upon commercialization of the product, the license agreement provides that we will pay royalties based on net sales. Net sales of Fanapt by Novartis during the three month period ended September 30, 2010 were approximately \$4.9 million and we are obligated to pay royalties of approximately \$741,000 to Sanofi-Aventis which was included in Accounts Receivable and Accounts Payable on the September 30, 2010 balance sheet.

**6. Stockholders’ Equity**

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

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

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### **Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations**

*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,” “plan,” “anticipate,” “continue,” or similar terms, variations of those terms or the negative of those terms. Our actual results may differ materially from those described in these forward-looking statements due to, among other factors, the results of research and development efforts, the results of pre-clinical 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, our ability to obtain additional financing, the effect of our accounting policies, and other risks detailed in our SEC filings.*

*Probuphine™ and ProNeura™ are trademarks of Titan Pharmaceuticals, Inc. This Form 10-Q also includes trade names and trademarks of companies other than Titan Pharmaceuticals, Inc.*

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

#### **Overview**

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

- *Fanapt (iloperidone):* An atypical antipsychotic approved by the U.S. Food and Drug Administration (“FDA”) for the treatment of schizophrenia. Novartis Pharma AG (“Novartis”) has acquired the U.S. and Canadian rights to further develop and commercialize the approved oral formulation, which it launched in the U.S. in January 2010, and also further develop and potentially commercialize an injectable form of the drug, known as a depot formulation. We are entitled to a royalty of 8-10% of net sales based on intellectual property claiming iloperidone that we licensed from Sanofi-Aventis. In the U.S. the license covers all formulations of iloperidone through November 2016 (inclusive of a patent extension under the Patent Restoration Act), with a possible additional six month extension for development of pediatric indications. Vanda Pharmaceuticals, Inc. (“Vanda”) has the development and commercialization rights to the oral and depot formulations of this product for the rest of the world. Because patent coverage on the compound has now expired in most significant markets outside the U.S. and no patent term extensions are possible since the product was not approved in these countries prior to patent expiration, our royalties on any future sales in such markets will generally be limited. We will review the potential of any royalty revenue on a country by country basis at the time of application for approval of the product. Following is a list of the remaining countries where the Sanofi-Aventis patents claiming the compound iloperidone still provide patent protection:

Portugal	September 2011
Lichtenstein	November 2012
Georgia	November 2012
Korea	July 2013
Philippines	May 2014

- *Probuphine:* A slow release implant formulation of buprenorphine in Phase 3 clinical development for the treatment of opioid addiction that is capable of maintaining a round the clock stable blood level of the drug in patients for six months following a single treatment. We have previously announced positive safety and efficacy results of this product in Phase 3 studies including a placebo controlled Phase 3 study. In October 2009 we were awarded a \$7.6 million grant from the National Institutes of Health (“NIH”) that will partially fund the second Phase 3 controlled safety and efficacy study required by the FDA for product registration. We have recently provided an update on the confirmatory Phase 3 study with full patient enrollment at 20 U.S. sites completed in September 2010, almost three months ahead of schedule, and study results are expected by mid second quarter 2011.

The ProNeura long-term drug delivery technology underlying Probuphine has the potential to be used in developing products for the treatment of other chronic conditions where maintaining stable, round the clock blood levels of a drug can benefit the patient and improve medical outcomes. We were recently awarded a \$0.5 million grant by the NIH under the Small Business Innovation Research (SBIR) program to conduct non-clinical studies in a model of Parkinson’s disease using previously approved dopamine agonists and the ProNeura drug delivery technology. The first non-clinical study has just started and will provide data on the release characteristics of the product. We have also licensed certain rights from the University of Iowa to potentially use gallium maltolate for the treatment of chronic bacterial infections.

#### **Our Products**

Fanapt was approved by the FDA in May 2009 for the treatment of schizophrenia and Novartis has acquired the rights to commercialize it in the U.S. and Canada. Novartis announced that it commenced commercial launch of Fanapt in mid January 2010 and has reported net sales of approximately \$26.3 million through September 30, 2010.

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Probuphine is currently in Phase 3 clinical development and has demonstrated safety and efficacy in three Phase 3 studies, including one controlled Phase 3 study. However, additional clinical and manufacturing development is necessary prior to registration and it may still not be successfully developed or commercialized. Titan has been awarded a \$7.6 million grant by the NIH in partial support of the second controlled Phase 3 study, the total external cost of which is estimated at approximately \$14.6 million. We will also require significant further capital, currently estimated at approximately \$3.9 million, to support third party expenses related to manufacturing development and testing, and possibly an addition \$6.0 million for a long term safety study (one year treatment) prior to commercialization without giving effect to the cost of additional clinical studies, if any, that may be required by the FDA. We may experience unanticipated problems relating to product development and cannot predict whether we will successfully develop and commercialize any products.

Titan was recently awarded an SBIR grant supporting the development of a long-term, non-fluctuating dopamine agonist treatment for Parkinson's disease. The first year award in the amount of \$300,000 will be available to Titan starting August 1, 2010, and an additional \$195,000 for the second year starting August 1, 2011 has been recommended subject to availability of funds and satisfactory progress of the project. The grant will be administered by the National Institute of Neurological Disorders and Stroke ("NINDS").

### ***Results of Operations for the Three and Nine Months Ended September 30, 2010 and September 30, 2009***

Our net loss for the three month period ended September 30, 2010 was approximately \$0.4 million, or approximately \$0.01 per share, compared to our net loss of approximately \$1.6 million, or approximately \$0.03 per share, for the comparable period in 2009. Our net loss for the nine month period ended September 30, 2010 was approximately \$2.5 million, or approximately \$0.04 per share, compared to our net loss of approximately \$4.4 million, or approximately \$0.08 per share, for the comparable period in 2009.

We generated royalty revenues during the three and nine month periods ended September 30, 2010 of approximately \$0.4 million and \$2.1 million, respectively. We had no royalty revenue during the comparable periods in 2009. We generated grant revenues during the three and nine month periods ended September 30, 2010 of approximately \$3.2 million and \$5.3 million, respectively. We had no grant revenue during the comparable periods in 2009. We generated revenues of \$1,000 from licensing agreements during the three month period ended September 30, 2010 and approximately \$12,000 during the nine month period ended September 30, 2010. We generated no revenues from licensing agreements during the three month period ended September 30, 2009 and approximately \$52,000 during the nine month period ended September 30, 2009. Royalty revenues during the three and nine month periods ended September 30, 2010 consisted of royalties on sales of Fanapt. Grant revenues during the three and nine month periods ended September 30, 2010 consisted of proceeds from the NIH grant related to our Probuphine program.

Research and development expenses for the three month period ended September 30, 2010 were approximately \$3.0 million, compared to approximately \$0.7 million for the comparable period in 2009, an increase of approximately \$2.3 million, or 329%. Research and development expenses for the nine month period ended September 30, 2010 were approximately \$6.8 million, compared to approximately \$1.7 million for the comparable period in 2009, an increase of \$5.1 million, or 300%. The increase in research and development costs during the three and nine month periods ended September 30, 2010 was primarily associated with an increase in external research and development expenses associated with the initiation and ongoing expenses of the Phase 3 clinical trials related to our Probuphine product. External research and development expenses include direct expenses such as clinical research organization charges, investigator and review board fees, patient expense reimbursements and contract manufacturing expenses. During the three and nine month periods ended September 30, 2010, external research and development expenses relating to our Probuphine product development program were approximately \$2.5 million and \$5.1 million, respectively. Other research and development expenses include internal operating costs such as clinical research and development personnel-related expenses, clinical trials related travel expenses, and allocation of facility and corporate costs. As a result of the risks and uncertainties inherently associated with pharmaceutical research and development activities described elsewhere in this report, we are unable to estimate the specific timing and future costs of our clinical development programs or the timing of material cash inflows, if any, from our product candidates.

General and administrative expenses for the three month period ended September 30, 2010 were approximately \$0.7 million, compared to approximately \$0.9 million for the comparable period in 2009, a decrease of approximately \$0.2 million, or 22%. General and administrative expenses for the nine month period ended September 30, 2010 were approximately \$2.6 million, compared to approximately \$2.7 million for the comparable period in 2009, a decrease of \$0.1 million, or 4%. The decrease in general and administrative expenses during the three month period ended September 30, 2010 was primarily related to decreases in non-cash stock compensation costs of approximately \$0.1 million, consulting and professional fees of approximately \$0.1 million and facilities and other administrative costs of approximately \$0.1 million. This was offset in part by increases in legal fees of approximately \$0.1 million. The decrease in general and administrative expenses during the nine month period ended September 30, 2010 was primarily related to decreases in non-cash stock compensation costs of approximately \$0.7 million, facilities and other administrative costs of approximately \$0.3 million and depreciation expenses of approximately \$0.1 million. This was offset in part by increases in legal fees of approximately \$0.5 million and consulting and professional fees of approximately \$0.5 million.

Net other expense for the three month period ended September 30, 2010 was approximately \$249,000, compared to approximately \$8,000 in the comparable period in 2009. Net other expense for the nine month period ended September 30, 2010 was approximately \$494,000, compared to approximately \$6,000 in the comparable period in 2009. The increase in net other expense during the three months ended September 30, 2010, was primarily related to interest expense of approximately \$139,000 and loan fees of approximately \$125,000 resulting from our loans with Oxford. The increase in net other expense during the nine months ended September 30, 2010, was primarily related to interest expense of approximately \$379,000 and loan fees of approximately \$125,000 resulting from our loans with Oxford.

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### *Liquidity and Capital Resources*

We have funded our operations since inception primarily through sales of our securities, as well as with proceeds from warrant and option exercises, corporate licensing and collaborative agreements, government-sponsored research grants, royalties on sales of Fanapt and term loans. At September 30, 2010, we had approximately \$6.4 million of cash and cash equivalents compared to approximately \$3.3 million at December 31, 2009.

Our operating activities used approximately \$1.7 million during the nine months ended September 30, 2010. This consisted primarily of the net loss for the period of approximately \$2.5 million and \$1.8 million related to increases in accounts receivable, which includes approximately \$0.7 million which will have to be paid to Sanofi-Aventis for royalties earned on sales of Fanapt. This was offset in part by non-cash charges of approximately \$0.3 million related to share-based compensation expenses, approximately \$2.2 million related to increases in accounts payable and other accrued liabilities and approximately \$0.1 million related to net changes in other operating assets and liabilities. Uses of cash in operating activities were primarily to fund product development programs and administrative expenses. Our license agreements with Sanofi-Aventis and Massachusetts Institute of Technology require us to pay royalties on future product sales. In addition, in order to maintain license and other rights while products are under development, we must comply with customary licensee obligations, including the payment of patent-related costs, annual minimum license fees, meeting project-funding milestones and diligent efforts in product development. The aggregate commitments we have under these agreements, including minimum license payments, for the next 12 months is approximately \$100,000.

Net cash used by investing activities of approximately \$20,000 during the nine months ended September 30, 2010 consisted of purchases of office equipment.

Net cash provided by financing activities of approximately \$4.8 million during the nine month period ended September 30, 2010 consisted of proceeds from a new term loan of approximately \$5.0 million offset by payments on our existing term loan of approximately \$172,000.

In December 2009, we entered into a financing agreement with Oxford pursuant to which we received a three-year term loan in the principal amount of \$3.0 million that bears interest at the rate of 13% per annum. Under this agreement, we will make payments totaling approximately \$1.4 million during the next 12 months. We are obligated to make a final payment fee of \$180,000. The loan is secured by our assets and has a provision for pre-payment.

In September 2010, we amended our loan and security agreement with Oxford pursuant to which we received an additional thirty-nine month term loan in the principal amount of \$5.0 million that bears interest at the rate of 13% per annum. Under this agreement, we will make payments totaling approximately \$0.9 million during the next 12 months. We are obligated to make a final payment fee of \$300,000. The loan is secured by our assets and has a provision for pre-payment.

We expect to continue to incur substantial additional operating losses from costs related to the continuation of product and technology development, clinical trials, and administrative activities. We believe that our working capital at September 30, 2010, together with proceeds available from the two grants which were awarded by the National Institutes of Health ("NIH") and the ongoing royalty revenues from sales of Fanapt will be sufficient to support the ongoing Phase 3 clinical study of Probuphine and operations into the second quarter of 2011.

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

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**Item 3. Quantitative and Qualitative Disclosures About Market Risk**

This information has been omitted based on our status as a smaller reporting company.

**Item 4T. Controls and Procedures**

*Disclosure Controls and Procedures*

Our President, being our principal executive and financial officer, has evaluated the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934 as of September 30, 2010, the end of the period covered by this report, and has concluded that our disclosure controls and procedures were effective to ensure that the information required to be disclosed by us in reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC, and that such information is accumulated and communicated to our principal executive and principal financial officer as appropriate to allow timely decisions regarding required disclosure.

*Changes in Internal Control Over Financial Reporting*

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934) during the three months ended September 30, 2010 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

**PART II**

**Item 1A. Risk Factors**

This information has been omitted based on our status as a smaller reporting company.

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### **Item 5. Exhibits**

<u>No.</u>	<u>Description</u>
3.1	Amended and Restated Certificate of Incorporation of the Registrant, as amended <sup>9</sup>
3.2	By-laws of the Registrant <sup>1</sup>
4.1	Registration Rights Agreement dated as of December 17, 2007 <sup>2</sup>
4.2	Registration Rights Agreement dated as of December 8, 2009 <sup>9</sup>
4.3	Warrant to Purchase Common Stock dated December 23, 2009 issued to Oxford Finance Corporation <sup>9</sup>
4.4	Warrant to Purchase Common Stock dated September 27, 2010 issued to Oxford Finance Corporation
10.1	1998 Stock Option Plan <sup>3</sup>
10.2	2001 Non-Qualified Employee Stock Option Plan <sup>4</sup>
10.3	2002 Stock Option Plan <sup>5</sup>
10.4	Employment Agreement between the Registrant and Sunil Bhonsle, dated May 16, 2009, as amended by agreement dated February 17, 2010 <sup>9</sup>
10.5	Employment Agreement between the Registrant and Marc Rubin, dated May 16, 2009, as amended by agreement dated February 17, 2010 <sup>9</sup>
10.6	Lease for the Registrant's facilities, amended as of October 1, 2004 <sup>6</sup>
10.7	Amendments to lease for Registrant's facilities dated May 21, 2007 and March 12, 2009 <sup>9</sup>
10.9*	License Agreement between the Registrant and Sanofi-Aventis SA effective as of December 31, 1996 <sup>7</sup>
10.10*	Sublicense Agreement between the Registrant and Novartis Pharma AG dated November 20, 1997 <sup>8</sup>
10.11*	License Agreement between the Registrant and the Massachusetts Institute of Technology dated September 28, 1995 <sup>1</sup>
10.12	Loan and Security Agreement between the Registrant and Oxford Finance Corporation dated December 18, 2009 <sup>9</sup>
10.13	Stock Purchase Agreement between the Registrant and certain investors dated December 8, 2009 <sup>9</sup>
10.14	Amendment to Employment Agreement dated June 15, 2010 between the Registrant and Marc Rubin <sup>11</sup>
10.15	Amendment to Employment Agreement dated June 15, 2010 between the Registrant and Sunil Bhonsle <sup>11</sup>
10.16	Amendment to lease for Registrant's facilities dated June 15, 2010 <sup>12</sup>
10.17	Amended and Restated Loan and Security Agreement between the Registrant and Oxford Finance Corporation dated September 27, 2010
14.1	Code of Business Conduct and Ethics <sup>10</sup>
31.1	Certification of the Principal Executive and Financial Officer pursuant to Rule 13(a)-14(a) of the Securities Exchange of 1934
32.1	Certificate of the Principal Executive and Financial Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

(1) Incorporated by reference from the Registrant's Registration Statement on Form SB-2 (File No. 33-99386).

(2) Incorporated by reference from the Registrant's Current Report on Form 8-K dated December 27, 2007.

(3) Incorporated by reference from the Registrant's definitive Proxy Statement filed on July 28, 2000.

(4) Incorporated by reference from the Registrant's Annual Report on Form 10-K for the year ended December 31, 2001.

(5) Incorporated by reference from the Registrant's Annual Report on Form 10-K for the year ended December 31, 2002.

(6) Incorporated by reference from the Registrant's Annual Report on Form 10-K for the year ended December 31, 2005.

(7) Incorporated by reference from the Registrant's Annual Report on Form 10-KSB for the year ended December 31, 1996.

(8) Incorporated by reference from the Registrant's Registration Statement on Form S-3 (File No. 333-42367).

(9) Incorporated by reference from the Registrant's Registration Statement on Form 10 filed on January 14, 2010.

(10) Incorporated by reference from the Registrant's Annual Report on Form 10-K for the year ended December 31, 2003.

(11) Incorporated by reference from the Registrant's Current Report on Form 8-K dated June 16, 2010.

(12) Incorporated by reference from the Registrant's Quarterly Report on Form 10-Q for the period ended June 30, 2010.

\* Confidential treatment has been granted with respect to portions of this exhibit.



THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AND PURSUANT TO THE PROVISIONS OF ARTICLE 5 BELOW, MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND APPLICABLE STATE SECURITIES LAW OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS EXEMPT FROM REGISTRATION.

#### WARRANT TO PURCHASE COMMON STOCK

Company: TITAN PHARMACEUTICALS, INC., a Delaware corporation  
Number of Shares: 287,356  
Warrant Price: \$0.87 per share  
Issue Date: September 27, 2010  
Expiration Date: The 5th anniversary after the Issue Date  
Credit Facility: This Warrant is issued in connection with the Amended and Restated Loan and Security Agreement between Company and Oxford Finance Corporation dated as of the Closing Date (as defined therein), as amended from time to time (the "Loan Agreement").

THIS WARRANT CERTIFIES THAT, for good and valuable consideration, including without limitation the mutual promises contained in the Loan Agreement OXFORD FINANCE CORPORATION (together with any successor or permitted assignee or transferee of this Warrant, "Holder") is entitled to purchase the number of fully paid and nonassessable shares of the common stock (the "Shares") of the Company at the Warrant Price, all as set forth above and as adjusted pursuant to Article 2 of this Warrant, subject to the provisions and upon the terms and conditions set forth in this Warrant.

#### ARTICLE 1. EXERCISE.

1.1 Method of Exercise. Holder may exercise this Warrant by delivering the original of this Warrant together with a duly executed Notice of Exercise in substantially the form attached as Appendix 1 to the principal office of the Company. Unless Holder is exercising the conversion right set forth in Article 1.2, Holder shall also deliver to the Company a check, wire transfer (to an account designated by the Company), or other form of payment acceptable to the Company for the aggregate Warrant Price for the Shares being purchased.

1.2 Conversion Right. In lieu of exercising this Warrant as specified in Article 1.1, Holder may from time to time convert this Warrant, in whole or in part, into a number of Shares determined by dividing (a) the aggregate fair market value of the Shares or other securities otherwise issuable upon exercise of this Warrant minus the aggregate Warrant Price of such Shares by (b) the fair market value of one Share. The fair market value of the Shares shall be determined pursuant to Article 1.3.

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1.3 Fair Market Value. The fair market value of each Share shall be the closing price of a Share reported for the business day immediately before Holder delivers this Warrant together with its Notice of Exercise to the Company.

1.4 Delivery of Certificate and New Warrant. Promptly after Holder exercises or converts this Warrant and, if applicable, the Company receives payment of the aggregate Warrant Price, the Company shall deliver to Holder certificates for the Shares acquired and, if this Warrant has not been fully exercised or converted and has not expired, a new Warrant representing the Shares not so acquired.

1.5 Replacement of Warrants. On receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of loss, theft or destruction, on delivery of an indemnity agreement reasonably satisfactory in form and amount to the Company or, in the case of mutilation on surrender and cancellation of this Warrant, the Company shall execute and deliver, in lieu of this Warrant, a new warrant of like tenor.

1.6 Treatment of Warrant Upon Acquisition of Company.

1.6.1 “Acquisition”. For the purpose of this Warrant, “Acquisition” means any sale, license, or other disposition of all or substantially all of the assets of the Company, or any reorganization, consolidation, or merger of the Company where the holders of the Company’s securities before the transaction beneficially own less than 50% of the outstanding voting securities of the surviving entity after the transaction.

1.6.2 Treatment of Warrant at Acquisition.

A) Upon the written request of the Company, Holder agrees that, in the event of an Acquisition that is not an asset sale and in which the sole consideration is cash, either (a) Holder shall exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Acquisition or (b) if Holder elects not to exercise the Warrant, this Warrant will expire upon the consummation of such Acquisition. The Company shall provide the Holder with written notice of its request relating to the foregoing (together with such reasonable information as the Holder may request in connection with such contemplated Acquisition giving rise to such notice), which is to be delivered to Holder not less than ten (10) days prior to the closing of the proposed Acquisition.

B) Upon the written request of the Company, Holder agrees that, in the event of an Acquisition that is an “arms length” sale of all or substantially all of the Company’s assets (and only its assets) to a third party that is not an Affiliate (as defined below) of the Company (a “True Asset Sale”), either (a) Holder shall exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Acquisition or (b) if Holder elects not to exercise the Warrant, this Warrant will continue until the Expiration Date if the Company continues as a going concern following the closing of any such True Asset Sale. The Company shall provide the Holder with written notice of its request relating to the foregoing (together with such reasonable information as the Holder may request in connection with such contemplated Acquisition giving rise to such notice), which is to be delivered to Holder not less than ten (10) days prior to the closing of the proposed Acquisition.

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C) Upon the closing of any Acquisition other than those particularly described in subsections (A) and (B) above, the successor entity shall assume the obligations of this Warrant, and this Warrant shall be exercisable for the same securities, cash, and property as would be payable for the Shares issuable upon exercise of the unexercised portion of this Warrant as if such Shares were outstanding on the record date for the Acquisition and subsequent closing. The Warrant Price and/or number of Shares shall be adjusted accordingly.

As used herein “Affiliate” shall mean any person or entity that owns or controls directly or indirectly ten (10) percent or more of the stock of Company, any person or entity that controls or is controlled by or is under common control with such persons or entities, and each of such person’s or entity’s officers, directors, joint venturers or partners, as applicable.

## ARTICLE 2. ADJUSTMENTS TO THE SHARES.

2.1 Stock Dividends, Splits, Etc. If the Company declares or pays a dividend on the shares of its common stock payable in common stock, or other securities, then upon exercise of this Warrant, for each Share acquired, Holder shall receive, without cost to Holder, the total number and kind of securities to which Holder would have been entitled had Holder owned the Shares of record as of the date the dividend occurred. If the Company subdivides the shares of its common stock by reclassification or otherwise into a greater number of shares or takes any other action that causes the outstanding shares of its common stock to become converted into a greater number of shares of common stock, the number of Shares shall be proportionately increased and the Warrant Price shall be proportionately decreased. If the outstanding shares of the Company’s common stock are combined or consolidated, by reclassification or otherwise, into a lesser number of shares, the Warrant Price shall be proportionately increased and the number of Shares shall be proportionately decreased.

2.2 Reclassification, Exchange, Combinations or Substitution. Upon any reclassification, exchange, substitution, or other event that results in a change of the number and/or class of the securities issuable upon exercise or conversion of this Warrant, Holder shall be entitled to receive, upon exercise or conversion of this Warrant, the number and kind of securities and property that Holder would have received for the Shares if this Warrant had been exercised or converted immediately before such reclassification, exchange, substitution, or other event. The Company or its successor shall promptly issue to Holder an amendment to this Warrant setting forth the number and kind of such new securities or other property issuable upon exercise or conversion of this Warrant as a result of such reclassification, exchange, substitution or other event that results in a change of the number and/or class of securities issuable upon exercise or conversion of this Warrant and the amended Warrant Price. The amendment to this Warrant shall provide for adjustments which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Article 2 including, without limitation, adjustments to the Warrant Price and to the number of securities or property issuable upon exercise of the new Warrant. The provisions of this Article 2.2 shall similarly apply to successive reclassifications, exchanges, substitutions, or other events.

2.3 No Impairment. The Company shall not, by amendment of its Certificate of Incorporation or through a reorganization, transfer of assets, consolidation, merger, dissolution, issue, or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed under this Warrant by the Company, but shall at all times in good faith assist in carrying out of all the provisions of this Article 2 and in taking all such action as may be necessary or appropriate to protect Holder’s rights under this Article against impairment.

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2.4 Fractional Shares. No fractional Shares shall be issuable upon exercise or conversion of this Warrant and the number of Shares to be issued shall be rounded down to the nearest whole Share. If a fractional share interest arises upon any exercise or conversion of the Warrant, the Company shall eliminate such fractional share interest by paying Holder the amount computed by multiplying the fractional interest by the fair market value of a full Share computed as set forth in Article 1.3 above.

2.5 Certificate as to Adjustments. Upon each adjustment of the Warrant Price, the Company shall promptly notify Holder in writing, and, at the Company's expense, promptly compute such adjustment, and furnish Holder with a certificate of its Chief Financial Officer setting forth such adjustment and the facts upon which such adjustment is based. The Company shall, upon written request, furnish Holder a certificate setting forth the Warrant Price in effect upon the date thereof and the series of adjustments leading to such Warrant Price.

#### ARTICLE 3. REPRESENTATIONS AND COVENANTS OF THE COMPANY.

3.1 Representations and Warranties. The Company represents and warrants and covenants to the Holder as follows: all Shares which may be issued upon the exercise of the purchase right represented by this Warrant shall, upon issuance, be duly authorized, validly issued, fully paid and nonassessable, and free of any liens and encumbrances except for restrictions on transfer provided for herein or under applicable federal and state securities laws.

3.2 Notice of Certain Events. If the Company proposes at any time (a) to declare any dividend or distribution upon any of its stock, whether in cash, property, stock, or other securities and whether or not a regular cash dividend; (b) to effect any reclassification or recapitalization of any of its stock; (c) to merge or consolidate with or into any other corporation, or sell, lease, license, or convey all or substantially all of its assets, or to liquidate, dissolve or wind up, then, in connection with each such event, the Company shall give Holder: (1) at least 10 days prior written notice of the date on which a record will be taken for such dividend, distribution, or subscription rights (and specifying the date on which the holders of common stock will be entitled thereto) or for determining rights to vote, if any, in respect of the matters referred to in (a) above; and (2) in the case of the matters referred to in (b) and (c) above at least 10 days prior written notice of the date when the same will take place (and specifying the date on which the holders of common stock will be entitled to exchange their common stock for securities or other property deliverable upon the occurrence of such event). Company will also provide information requested by Holder reasonably necessary to enable the Holder to comply with the Holder's accounting or reporting requirements.

3.3 No Shareholder Rights. Except as provided in this Warrant, the Holder will not have any rights as a shareholder of the Company until the exercise of this Warrant.

#### ARTICLE 4. REPRESENTATIONS, WARRANTIES OF THE HOLDER. The Holder represents and warrants to the Company as follows:

4.1 Purchase for Own Account. This Warrant and the securities to be acquired upon exercise of this Warrant by the Holder will be acquired for investment for the Holder's account, not as a nominee or agent, and not with a view to the public resale or distribution within the meaning of the Act. Holder also represents that the Holder has not been formed for the specific purpose of acquiring this Warrant or the Shares.

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4.2 Disclosure of Information. The Holder has received or has had full access to all the information it considers necessary or appropriate to make an informed investment decision with respect to the acquisition of this Warrant and its underlying securities. The Holder further has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of this Warrant and its underlying securities and to obtain additional information (to the extent the Company possessed such information or could acquire it without unreasonable effort or expense) necessary to verify any information furnished to the Holder or to which the Holder has access.

4.3 Investment Experience. The Holder understands that the purchase of this Warrant and its underlying securities involves substantial risk. The Holder has experience as an investor in securities of companies in the development stage and acknowledges that the Holder can bear the economic risk of such Holder's investment in this Warrant and its underlying securities and has such knowledge and experience in financial or business matters that the Holder is capable of evaluating the merits and risks of its investment in this Warrant and its underlying securities and/or has a preexisting personal or business relationship with the Company and certain of its officers, directors or controlling persons of a nature and duration that enables the Holder to be aware of the character, business acumen and financial circumstances of such persons.

4.4 Accredited Investor Status. The Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

4.5 The Act. The Holder understands that this Warrant and the Shares issuable upon exercise or conversion hereof have not been registered under the Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of the Holder's investment intent as expressed herein. The Holder understands that this Warrant and the Shares issued upon any exercise or conversion hereof must be held indefinitely unless subsequently registered under the Act and qualified under applicable state securities laws, or unless exemption from such registration and qualification are otherwise available.

#### ARTICLE 5. MISCELLANEOUS.

5.1 Term. This Warrant is exercisable in whole or in part at any time and from time to time on or before the Expiration Date.

5.2 Legends. This Warrant and the Shares shall be imprinted with a legend in substantially the following form:

THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AND PURSUANT TO THE PROVISIONS OF ARTICLE 5 BELOW, MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND APPLICABLE STATE SECURITIES LAW OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS EXEMPT FROM REGISTRATION.

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5.3 Compliance with Securities Laws on Transfer. This Warrant and the Shares issuable upon exercise of this Warrant may not be transferred or assigned in whole or in part without compliance with applicable federal and state securities laws by the transferor and the transferee (including, without limitation, the delivery of investment representation letters and legal opinions reasonably satisfactory to the Company, as reasonably requested by the Company). The Company shall not require Holder to provide an opinion of counsel if the transfer is to any affiliate of Holder. Additionally, the Company shall also not require an opinion of counsel if there is no material question as to the availability of Rule 144, including, without limitation, current information as referenced in Rule 144(c), Holder represents that it has complied with Rule 144(d) and (e) in reasonable detail, the selling broker represents that it has complied with Rule 144(f), and the Company is provided with a copy of Holder's notice of proposed sale.

5.4 Transfer Procedure. After receipt by Holder of the executed Warrant, Holder may transfer this Warrant to any affiliate of Holder, by execution of an Assignment substantially in the form of Appendix 2. Subject to the provisions of Article 5.3 and upon providing Company with written notice, any subsequent Holder may transfer all or part of this Warrant or the Shares issuable upon exercise of this Warrant (or the Shares issuable directly or indirectly, upon conversion of the Shares, if any) to any transferee, provided, however, in connection with any such transfer, any subsequent Holder will give the Company notice of the portion of the Warrant being transferred with the name, address and taxpayer identification number of the transferee and Holder will surrender this Warrant to the Company for reissuance to the transferee(s) (and Holder if applicable).

5.5 Notices. All notices and other communications from the Company to the Holder, or vice versa, shall be deemed delivered and effective when given personally or mailed by first-class registered or certified mail, postage prepaid, at such address as may have been furnished to the Company or the Holder, as the case may (or on the first business day after transmission by facsimile) be, in writing by the Company or such Holder from time to time. Effective upon receipt of the fully executed Warrant and the initial transfer described in Article 5.4 above, all notices to the Holder shall be addressed as follows until the Company receives notice of a change of address in connection with a transfer or otherwise:

Oxford Finance Corporation  
133 N. Fairfax Street  
Alexandria, VA 22314  
Attn: Tim A. Lex, Chief Operating Officer  
Telephone: (703) 519-4900  
Facsimile: (703) 519-5225

Notice to the Company shall be addressed as follows until the Holder receives notice of a change in address:

Titan Pharmaceuticals, Inc.  
400 Oyster Point Blvd., Suite 505  
South San Francisco, CA 94080  
Attn: Chief Financial Officer  
Tel.: (650) 244-4990  
Fax: (650) 244-4956

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5.6 Waiver. This Warrant and any term hereof may be changed, waived, discharged or terminated only by an instrument in writing signed by the party against which enforcement of such change, waiver, discharge or termination is sought.

5.7 Attorneys' Fees. In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorneys' fees.

5.8 Automatic Conversion upon Expiration. In the event that, upon the Expiration Date, the fair market value of one Share as determined in accordance with Article 1.3 above is greater than the Warrant Price in effect on such date, then this Warrant shall automatically be deemed on and as of such date to be converted pursuant to Article 1.2 above as to all Shares (or such other securities) for which it shall not previously have been exercised or converted, and the Company shall promptly deliver a certificate representing the Shares (or such other securities) issued upon such conversion to the Holder.

5.9 Counterparts. This Warrant may be executed in counterparts, all of which together shall constitute one and the same agreement.

5.10 Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of California, without giving effect to its principles regarding conflicts of law.

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“COMPANY”

TITAN PHARMACEUTICALS, INC.

By: /s/ Sunil Bhonsle

Name: \_\_\_\_\_

Sunil Bhonsle

Title: President

“HOLDER”

OXFORD FINANCE CORPORATION

By: /s/ T.A. Lex

Name: \_\_\_\_\_

(Print)

Title: COO

*[Signature Page to Warrant to Purchase Common Stock]*

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**APPENDIX 1**

**NOTICE OF EXERCISE**

1. Holder elects to purchase \_\_\_\_\_ shares of the Common Stock of TITAN PHARMACEUTICALS, INC. pursuant to the terms of the attached Warrant, and tenders payment of the purchase price of the shares in full.

[or]

1. Holder elects to convert the attached Warrant into Shares in the manner specified in the Warrant. This conversion is exercised for of the Shares covered by the Warrant.

[Strike paragraph that does not apply.]

2. Please issue a certificate or certificates representing the shares in the name specified below:

\_\_\_\_\_  
Holders Name

\_\_\_\_\_  
\_\_\_\_\_  
(Address)

3. By its execution below and for the benefit of the Company, Holder hereby restates each of the representations and warranties in Article 4 of the Warrant as the date hereof.

HOLDER:

\_\_\_\_\_  
By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
(Date): \_\_\_\_\_

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**APPENDIX 2**

**ASSIGNMENT**

For value received, Oxford Finance Corporation hereby sells, assigns and transfers unto

Name:  
Address:  
Tax ID:

that certain Warrant to Purchase Common Stock issued by TITAN PHARMACEUTICALS, INC. (the "Company"), on September 27, 2010 (the "Warrant") together with all rights, title and interest therein.

OXFORD FINANCE CORPORATION

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

Date: \_\_\_\_\_

By its execution below, and for the benefit of the Company, \_\_\_\_\_ makes each of the representations and warranties set forth in Article 4 of the Warrant and agrees to all other provisions of the Warrant as of the date hereof.

\_\_\_\_\_  
By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**AMENDED AND RESTATED LOAN AND SECURITY AGREEMENT**

**THIS AMENDED AND RESTATED LOAN AND SECURITY AGREEMENT** (this “**Agreement**”) dated as of September 27, 2010 between OXFORD FINANCE CORPORATION (“**Lender**”), and TITAN PHARMACEUTICALS, INC., a Delaware corporation (“**Borrower**”), amends and restates the terms of that certain Loan and Security Agreement by and among Lender and Borrower, dated as of December 18, 2009 (as amended from time to time, the “**Original Agreement**”), and provides the terms on which Lender shall lend to Borrower and Borrower shall repay Lender. The parties agree as follows:

**1 ACCOUNTING AND OTHER TERMS**

Accounting terms not defined in this Agreement shall be construed following GAAP. Calculations and determinations must be made following GAAP. Capitalized terms not otherwise defined in this Agreement shall have the meanings set forth in Section 13. All other terms contained in this Agreement, unless otherwise indicated, shall have the meaning provided by the Code to the extent such terms are defined therein.

**2 LOAN AND TERMS OF PAYMENT**

**2.1 Promise to Pay.** Borrower hereby unconditionally promises to pay Lender the outstanding principal amount of the Credit Extension and accrued and unpaid interest thereon and any other amounts due hereunder as and when due in accordance with this Agreement.

**2.1.1 Growth Capital Loan Facility.****(a) Growth Capital Loan A.**

(i) **Availability.** On or about the date of the Original Agreement, Lender made an advance to Borrower in the amount of Three Million Dollars (\$3,000,000) (the “Growth Capital Loan A”).

(ii) **Repayment.** Subject to the terms and conditions of this Agreement, Borrower shall continue to make monthly payments of principal and interest on the Growth Capital Loan A in accordance with the terms and conditions of the Promissory Note dated as of December 23, 2009, issued in connection with the Growth Capital Loan A, and the amortization schedule attached hereto as Annex A. Without limiting the foregoing, all unpaid principal and accrued and unpaid interest and all other amounts due on account of the Growth Capital Loan A are due and payable in full on the Growth Capital Loan A Maturity Date. The Growth Capital Loan A may only be prepaid in accordance with Sections 2.1.1(d) and/or 2.1.1(e).

**(b) Growth Capital Loan B.**

(i) **Availability.** Subject to the terms and conditions of this Agreement, on the Closing Date Lender shall make one (1) advance to Borrower in the amount of Five Million Dollars (\$5,000,000) (the “Growth Capital Loan B”).

(ii) **Repayment.** Borrower shall make monthly payments of interest only, in arrears, commencing on the first day of the month following the month in which the Funding Date occurs and continuing thereafter on the first day of each successive calendar month during the Interest Only Period. Commencing on the Growth Capital Loan B Amortization Date, Borrower shall make thirty (30) equal monthly payments of principal and interest, in arrears, which would fully amortize the outstanding amount of the Growth Capital Loan B, in accordance with the amortization schedule attached hereto as Annex B. All unpaid principal and accrued and unpaid interest and all other amounts due on account of the Growth Capital Loan B are due and payable in full on the Growth Capital Loan B Maturity Date. The Growth Capital Loan B may only be prepaid in accordance with Sections 2.1.1(d) and/or 2.1.1(e).

(c) Final Payments.

(i) On the Growth Capital Loan A Maturity Date, Borrower shall pay, in addition to the unpaid principal and accrued interest and all other amounts due on such date with respect to the Growth Capital Loan A, an amount equal to the Growth Capital Loan A Final Payment.

(ii) On the Growth Capital Loan B Maturity Date, Borrower shall pay, in addition to the unpaid principal and accrued interest and all other amounts due on such date with respect to the Growth Capital Loan B, an amount equal to the Growth Capital Loan B Final Payment.

(d) Permitted Prepayment. Borrower shall have the option to prepay all, but not less than all, of the Growth Capital Advances made by Lender under this Agreement, provided Borrower, (i) provides written notice to Lender of its election to prepay the Growth Capital Advances at least fifteen (15) days prior to such prepayment, and (ii) pays, on the date of such prepayment (A) all outstanding principal plus accrued interest on the Growth Capital Advances, (B) the Final Payments, plus (C) all other sums that have become due and payable, including Lender Expenses, if any, and interest at the Default Rate with respect to any past due amounts.

(e) Mandatory Prepayment Upon an Acceleration. If the Growth Capital Advances are accelerated following the occurrence of an Event of Default, Borrower shall immediately pay to Lender an amount equal to the sum of: (i) all outstanding principal plus accrued and unpaid interest on the Growth Capital Advances, (ii) the Final Payments, plus (iii) all other sums, if any, that shall have become due and payable, including interest at the Default Rate with respect to any past due amounts.

**2.2 Payment of Interest on the Credit Extensions.**

(a) Interest Rate. Subject to Section 2.2(b), the principal amount outstanding under the Growth Capital Advances shall accrue interest, which interest shall be payable in arrears, at a fixed per annum rate equal to the greater of (i) 13.00% or (ii) the LIBOR Rate, as of the Funding Date, plus the LIBOR Margin, which interest shall be payable monthly, in arrears, in accordance with Section 2.2(e) below.

(b) Default Rate. Immediately upon the occurrence and during the continuance of an Event of Default, Obligations shall bear interest at a rate per annum which is five percentage points above the rate that is otherwise applicable thereto (the “**Default Rate**”). Payment or acceptance of the increased interest rate provided in this Section 2.2(b) is not a permitted alternative to timely payment and shall not constitute a waiver of any Event of Default or otherwise prejudice or limit any rights or remedies of Lender.

(c) 360-Day Year. Interest shall be computed on the basis of a 360-day year consisting of twelve (12) months of thirty (30) days.

(d) Debit of Accounts. In the event not received by Lender when due, or as Lender and Borrower may otherwise agree in writing, Lender may debit any of Borrower’s deposit accounts, including the Designated Deposit Account, through automatic debit of such accounts, Automated Clearinghouse (“ACH”) or other transfers, for principal, interest and other Obligations owing by Borrower to Lender when due. These debits shall not constitute a set-off.

(e) Payments. Unless otherwise provided, interest is payable monthly, in arrears, on the first calendar day of each month. Payments of principal and/or interest received after 12:00 p.m. Pacific time are considered received at the opening of business on the next Business Day. When a payment is due on a day that is not a Business Day, the payment is due the next Business Day and additional fees or interest, as applicable, shall continue to accrue.

**2.3 Fees.** Borrower shall pay to Lender:

(a) Facility Fee. A fully earned, non-refundable loan fee, on account of the Growth Capital Loan B, of One Hundred Twenty Five Thousand Dollars (\$125,000) (the “Facility Fee”), receipt of Twenty Five Thousand Dollars (\$25,000) of which hereby is acknowledged by Lender;

(b) Final Payments. The Final Payments when due on the Growth Capital Loan A Maturity Date or the Growth Capital Loan B Maturity Date, respectively, or pursuant to the terms of Sections 2.1.1(d) or 2.1.1(e); and

(c) Lender Expenses. All Lender Expenses (including reasonable attorneys' fees and expenses, plus reasonable expenses for documentation and negotiation of this Agreement) incurred through and after the Closing Date, when due.

### **3 CONDITIONS OF LOANS**

**3.1 Conditions Precedent to Credit Extension.** Lender's obligation to make the Credit Extension is subject to the condition precedent that Borrower shall consent to or have delivered, in form and substance satisfactory to Lender, such documents, and completion of such other matters, as Lender may reasonably deem necessary or appropriate, including, without limitation:

(a) duly executed original signatures to the Loan Documents to which it is a party;

(b) duly executed original signatures to the Control Agreement(s);

(c) duly executed original signatures to the Warrant;

(d) its Operating Documents and good standing certificates (or equivalents) of Borrower certified by the Secretary of State of the States of Delaware and California (and such other states and/or jurisdictions in which Borrower is qualified to do and or doing business) as of a date no earlier than thirty (30) days prior to the Closing Date;

(e) a duly executed original Secretary's Certificate certifying the adoption and ratification of, and completed Borrowing Resolutions for, Borrower;

(f) a landlord's consent executed in favor of Lender with respect to each of Borrower's leased locations (other than Borrower's New Jersey location);

(g) certified copies, dated as of a recent date, of financing statement searches, as Lender shall request, accompanied by written evidence (including any UCC termination statements) that the Liens indicated in any such financing statements either constitute Permitted Liens or have been or, in connection with the Credit Extension, will be terminated or released;

(h) the Perfection Certificate executed by Borrower;

(i) evidence satisfactory to Lender that the insurance policies required by Section 6.5 hereof are in full force and effect, together with appropriate evidence showing lender loss payable and/or additional insured clauses or endorsements in favor of Lender; and

(j) payment of the fees and Lender Expenses then due as specified in Section 2.3 hereof.

**3.2 Conditions Precedent to the Credit Extension.** Lender's obligation to make the Credit Extension is subject to the following:

(a) Borrower shall have duly executed and delivered to Lender the Growth Capital Loan B Promissory Note in the amount of the Growth Capital Loan B, and the Disbursement Letter;

(b) the representations and warranties in Section 5 shall be true in all material respects on the Funding Date of the Credit Extension; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date, and no Event of Default shall have occurred and be continuing or result from the Credit Extension. The Credit Extension is Borrower's representation and warranty on that date that the representations and warranties in Section 5 remain true in all material respects; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date; and

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(c) in Lender's sole discretion, there has not been a Material Adverse Change.

**3.3 Covenant to Deliver.** Borrower agrees to deliver to Lender each item required to be delivered to Lender under this Agreement as a condition to the Credit Extension. Borrower expressly agrees that a Credit Extension made prior to the receipt by Lender of any such item shall not constitute a waiver by Lender of Borrower's obligation to deliver such item, and the Credit Extension in the absence of a required item shall be made in Lender's sole discretion.

#### **4 CREATION OF SECURITY INTEREST**

**4.1 Grant of Security Interest.** Borrower hereby grants Lender, to secure the payment and performance in full of all of the Obligations, a continuing security interest in, and pledges to Lender, the Collateral, wherever located, whether now owned or hereafter acquired or arising, and all proceeds and products thereof. Borrower represents, warrants, and covenants that the security interest granted herein is and shall at all times continue to be a first priority perfected security interest in the Collateral (subject only to Permitted Liens that may have superior priority to Lender's Lien pursuant to the terms of this Agreement). If Borrower shall acquire a commercial tort claim (as defined in the Code), Borrower shall promptly notify Lender in a writing signed by Borrower of the general details thereof (and further details as may be required by Lender in the exercise of its reasonable discretion) and grant to Lender in such writing a security interest therein and in the proceeds thereof, all upon the terms of this Agreement, with such writing to be in form and substance reasonably satisfactory to Lender.

If this Agreement is terminated, Lender's Lien in the Collateral shall continue until the Obligations (other than inchoate indemnity obligations) are repaid in full in cash. Upon payment in full in cash of the Obligations (other than inchoate indemnity obligations), Lender shall, at Borrower's sole cost and expense, release its Liens in the Collateral and all rights therein shall revert to Borrower.

**4.2 Authorization to File Financing Statements.** Borrower hereby authorizes Lender to file financing statements, without notice to Borrower, with all appropriate jurisdictions to perfect or protect Lender's interest or rights hereunder, including a notice that any disposition of the Collateral, by either Borrower or any other Person, shall be deemed to violate the rights of Lender under the Code. Such financing statements may indicate the Collateral as "all assets of the Debtor" or words of similar effect, or as being of an equal or lesser scope, or with greater detail, all in Lender's discretion.

#### **5 REPRESENTATIONS AND WARRANTIES**

Borrower represents and warrants as follows:

**5.1 Due Organization, Authorization; Power and Authority.** Borrower is duly existing and in good standing in its jurisdiction of formation and is qualified and licensed to do business and is in good standing in any jurisdiction in which the conduct of its business or its ownership of property requires that it be qualified except where the failure to do so could not reasonably be expected to have a material adverse effect on Borrower's business. In connection with this Agreement, Borrower has delivered to Lender a completed certificate signed by Borrower, entitled "Perfection Certificate". Borrower represents and warrants to Lender that (a) Borrower's exact legal name is that indicated on the Perfection Certificate and on the signature page hereof; (b) Borrower is an organization of the type and is organized in the jurisdiction set forth in the Perfection Certificate; (c) the Perfection Certificate accurately sets forth Borrower's organizational identification number or accurately states that Borrower has none; (d) the Perfection Certificate accurately sets forth Borrower's place of business, or, if more than one, Borrower's chief executive office as well as Borrower's mailing address (if different than its chief executive office); (e) Borrower (and none of its predecessors) has not, in the past five (5) years, changed its jurisdiction of formation, organizational structure or type, or any organizational number assigned by its jurisdiction; and (f) all other information set forth on the Perfection Certificate pertaining to Borrower and its Subsidiaries is accurate and complete (it being understood and agreed that Borrower may from time to time update certain information in the Perfection Certificate after the Closing Date to the extent permitted by one or more specific provisions in this Agreement). If Borrower is not now a Registered Organization but later becomes one, Borrower shall promptly notify Lender of such occurrence and provide Lender with Borrower's organizational identification number.

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The execution, delivery and performance by Borrower of the Loan Documents to which it is a party have been duly authorized, and do not (i) conflict with any of Borrower's organizational documents, (ii) contravene, conflict with, constitute a default under or violate any material Requirement of Law, (iii) contravene, conflict or violate any applicable order, writ, judgment, injunction, decree, determination or award of any Governmental Authority by which Borrower or any its Subsidiaries or any of their property or assets may be bound or affected, (iv) require any action by, filing, registration, or qualification with, or Governmental Approval from, any Governmental Authority (except such Governmental Approvals which have already been obtained and are in full force and effect) or (v) constitute an event of default under any material agreement by which Borrower is bound. Borrower is not in default under any agreement to which it is a party or by which it is bound in which the default could have a material adverse effect on Borrower's business.

**5.2 Collateral.** Borrower has good title to, has rights in, and the power to grant a Lien to Lender in each item of the Collateral upon which it purports to grant a Lien under the Loan Documents to which it is a party, free and clear of any and all Liens except Permitted Liens. Borrower does not have any deposit accounts other than the deposit accounts with Silicon Valley Bank, the deposit accounts, if any, described in the Perfection Certificate delivered to Lender in connection herewith, or of which Borrower has given Lender notice and taken such actions as are necessary to give Lender a perfected security interest therein.

The Collateral is not in the possession of any third party bailee (such as a warehouse) except as otherwise provided in the Perfection Certificate; and the book value of any such Collateral does not exceed \$250,000. None of the components of the Collateral shall be maintained at locations other than as provided in the Perfection Certificate or as permitted pursuant to Section 7.2. In the event that Borrower, after the date hereof, intends to store or otherwise deliver any portion of the Collateral (having an aggregate book value in excess of \$250,000) to a bailee, then Borrower will first receive the written consent of Lender and such bailee must execute and deliver a bailee agreement in form and substance satisfactory to Lender in its sole discretion. None of the Collateral (other than office equipment and furniture having an aggregate book value not in excess of \$10,000) is now, or will at any time during the term hereof, be located at or in Borrower's leased premises in New Jersey.

Borrower is the sole owner of the Intellectual Property which it owns or purports to own except for (a) (i) non-exclusive licenses of Intellectual Property granted to third parties in the ordinary course of business, and (ii) licenses of Intellectual Property that could not result in a legal transfer of title of the licensed property that may be exclusive in respects other than territory and that may be exclusive as to territory only as to discreet geographical areas outside of the United States, (b) over-the-counter software that is commercially available to the public, and (c) Intellectual Property licensed to Borrower and, to the extent constituting material Intellectual Property, as noted on the Perfection Certificate. Each Patent which it owns or purports to own and which is material to Borrower's business is valid and enforceable, and no part of the Intellectual Property which Borrower owns or purports to own and which is material to Borrower's business has been judged invalid or unenforceable, in whole or in part. To the best of Borrower's knowledge, no claim has been made that any part of the Intellectual Property violates the rights of any third party except to the extent such claim would not reasonably be expected to have a material adverse effect on Borrower's business. Except as noted on the Perfection Certificate, Borrower is not a party to, nor is it bound by, any Restricted License.

**5.3 Litigation.** Except as set forth in the Perfection Certificate, there are no actions or proceedings pending or, to the knowledge of the Responsible Officers, threatened in writing by or against Borrower or any of its Subsidiaries involving more than \$100,000.

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**5.4 No Material Deviation in Financial Statements.** All consolidated financial statements for Borrower and its Subsidiaries delivered to Lender fairly present in all material respects the Borrower's and such Subsidiaries' consolidated financial condition and consolidated results of operations. There has not been any material deterioration in the Borrower's and its Subsidiaries' consolidated financial condition since the date of the most recent financial statements submitted to Lender.

**5.5 Solvency.** The fair salable value of Borrower's assets (including goodwill minus disposition costs) exceeds the fair value of its liabilities; Borrower is not left with unreasonably small capital after the transactions in this Agreement; and Borrower is able to pay its debts (including trade debts) as they mature.

**5.6 Regulatory Compliance.** Borrower is not an "investment company" or a company "controlled" by an "investment company" under the Investment Company Act of 1940, as amended. Borrower is not engaged as one of its important activities in extending credit for margin stock (under Regulations X, T and U of the Federal Reserve Board of Governors). Borrower has complied in all material respects with the Federal Fair Labor Standards Act. Neither Borrower nor any of its Subsidiaries is a "holding company" or an "affiliate" of a "holding company" or a "subsidiary company" of a "holding company" as each term is defined and used in the Public Utility Holding Company Act of 2005. Borrower has not violated any laws, ordinances or rules, the violation of which could reasonably be expected to have a material adverse effect on its business. None of Borrower's or any of its Subsidiaries' properties or assets has been used by Borrower or any Subsidiary or, to the best of Borrower's knowledge, by previous Persons, in disposing, producing, storing, treating, or transporting any hazardous substance other than legally. Borrower and each of its Subsidiaries have obtained all consents, approvals and authorizations of, made all declarations or filings with, and given all notices to, all Governmental Authorities that are necessary to continue their respective businesses as currently conducted.

**5.7 Subsidiaries; Investments.** Borrower does not own any stock, partnership interest or other equity securities except for Permitted Investments.

**5.8 Tax Returns and Payments; Pension Contributions.** Borrower has timely filed all required tax returns and reports, and has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower. Borrower may defer payment of any contested taxes, provided that Borrower (a) in good faith contests its obligation to pay the taxes by appropriate proceedings promptly and diligently instituted and conducted, (b) notifies Lender in writing of the commencement of, and any material development in, the proceedings, (c) posts bonds or takes any other steps required to prevent the governmental authority levying such contested taxes from obtaining a Lien upon any of the Collateral that is other than a "Permitted Lien". Borrower is unaware of any claims or adjustments proposed for any of Borrower's prior tax years which could result in additional taxes becoming due and payable by Borrower. Borrower has paid all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms, as applicable, and Borrower has not withdrawn from participation in, and has not permitted partial or complete termination of, or permitted the occurrence of any other event with respect to, any such plan which could reasonably be expected to result in any liability of Borrower, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other governmental agency, as applicable.

**5.9 Use of Proceeds.** Borrower shall use the proceeds of the Credit Extension solely as working capital and to fund its general business requirements and not for personal, family, household or agricultural purposes.

**5.10 Full Disclosure.** No written representation, warranty or other statement of Borrower in any certificate or written statement given to Lender, as of the date such representation, warranty, or other statement was made, taken together with all such written certificates and written statements given to Lender, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements contained in the certificates or statements not misleading (it being recognized by Lender that the projections and forecasts provided by Borrower in good faith and based upon reasonable assumptions are not viewed as facts and that actual results during the period or periods covered by such projections and forecasts may differ from the projected or forecasted results).

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## 6 AFFIRMATIVE COVENANTS

Borrower shall do all of the following:

### 6.1 Government Compliance.

(a) Maintain its and all its Subsidiaries' legal existence and good standing in their respective jurisdictions of formation and maintain qualification in each jurisdiction in which the failure to so qualify would reasonably be expected to have a Material Adverse Change. Borrower shall comply, and have each Subsidiary comply, with all laws, ordinances and regulations to which it is subject, noncompliance with which could have a material adverse effect on Borrower's business.

(b) Obtain all of the Governmental Approvals necessary for the performance by Borrower of its obligations under the Loan Documents to which it is a party and the grant of a security interest to Lender in all of its property. Borrower shall promptly provide copies of any such obtained Governmental Approvals to Lender.

### 6.2 Financial Statements, Reports, Certificates. Deliver to Lender:

(a) Quarterly Financial Statements. As soon as available, but no later than forty-five (45) days after the last day of each of the first three quarters of Borrower's fiscal year, a company prepared consolidated financial statements prepared under GAAP, consistently applied, certified by a Responsible Officer and in a form reasonably acceptable to Lender;

(b) Annual Audited Financial Statements. As soon as available, but no later than one hundred twenty (120) days after the last day of Borrower's fiscal year, audited consolidated financial statements prepared under GAAP, consistently applied, together with an unqualified opinion on the financial statements from an independent certified public accounting firm acceptable to Lender in its reasonable discretion;

(c) Compliance Certificates. Concurrently with the delivery of any financial statements pursuant to clauses (a), (b) and (c), a duly completed Compliance Certificate signed by a Responsible Officer, certifying that as of the end of such period, Borrower was in full compliance with all of the terms and conditions of this Agreement, and setting forth such other information as Lender shall reasonably request;

(d) Other Statements. Within five (5) days of delivery, unless earlier posted on Borrower's website, copies of all statements, reports and notices made available to Borrower's security holders or to any holders of Subordinated Debt;

(e) SEC Filings. Within five (5) days of filing, copies of all periodic and other reports, proxy statements and other materials filed by Borrower with the SEC, any Governmental Authority succeeding to any or all of the functions of the SEC or with any national securities exchange, or distributed to its shareholders, as the case may be. Notwithstanding the foregoing, documents required to be delivered pursuant to the terms hereof (to the extent any such documents are included in materials otherwise filed with the SEC) shall be deemed to have been delivered to Lender on the date on which Borrower posts such documents, or provides a link thereto, on Borrower's website on the internet at Borrower's website address;

As to any information contained in the materials furnished pursuant to this clause (f), Borrower shall not be required separately to furnish such information under clauses (b), (c) and (e), but the foregoing shall not be in derogation of the obligation of Borrower to furnish the information and materials described in such clauses (b), (c) and (e) at the times specified therein; provided, that Borrower shall provide paper copies to Lender of the Compliance Certificates required by Section 6.2(d).

(f) Annual Financial Projections. Within 45 days after the end of each fiscal year, commencing with the fiscal year ending 2010, annual financial projections for the following fiscal year (on a quarterly basis) as approved by Borrower's board of directors, together with any related business forecasts used in the preparation of such annual financial projections;

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(g) Legal Action Notice. A prompt report of any legal actions pending or threatened in writing against Borrower or any of its Subsidiaries that could reasonably be expected to result in damages or costs to Borrower or any of its Subsidiaries of, individually or in the aggregate, \$250,000 or more;

(h) Intellectual Property Notice. Prompt written notice of (i) any material change in the composition of the Intellectual Property, (ii) the registration of any copyright, including any subsequent ownership right of Borrower in or to any copyright, patent or trademark not shown in the IP Agreement, and (iii) Borrower's knowledge of an event that could reasonably be expected to materially and adversely affect the value of the Intellectual Property; and

(i) Other Financial Information. Budgets, sales projections, operating plans and other financial information reasonably requested by Lender, including but not limited to account statements with respect to each bank, investment or similar account maintained by Borrower, within ten (10) days after the end of each month or other receipt thereof.

**6.3 Inventory; Returns.** Keep all Inventory (other than clinical inventory) in good and marketable condition, free from material defects. Returns and allowances between Borrower and its Account Debtors shall follow Borrower's customary practices as they exist at the Closing Date. Borrower must promptly notify Lender of all returns, recoveries, disputes and claims that involve more than \$100,000.

**6.4 Taxes; Pensions.** Timely file, and require each Subsidiary to timely file, all required tax returns and reports and timely pay, and require each Subsidiary to timely file, all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower, except for deferred payment of any taxes contested pursuant to the terms of Section 5.8 hereof, and shall deliver to Lender, on demand, appropriate certificates attesting to such payments, and pay all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms.

**6.5 Insurance.** Keep its, and cause each Subsidiary to keep its respective business and the Collateral insured for risks and in amounts standard for companies in Borrower's industry and locations and as Lender may reasonably request; provided that Borrower's Subsidiaries may be covered by Borrower's insurance policies. Insurance policies shall be in a form, with companies, and in amounts that are reasonably satisfactory to Lender. All property policies shall have a lender's loss payable endorsement showing Lender as lender loss payee and waive subrogation against Lender, and all liability policies shall show, or have endorsements showing, Lender as an additional insured. All policies (or the loss payable and additional insured endorsements) shall provide that the insurer shall give Lender at least twenty (20) days notice before canceling (other than cancellation based on non-payment of premium, with respect to which the insurer shall provide at least ten (10) days notice before canceling) or declining to renew its policy. At Lender's request, Borrower shall deliver certified copies of policies and evidence of all premium payments. If Borrower or any Subsidiary fails to obtain insurance as required under this Section 6.5 or to pay any amount or furnish any required proof of payment to third persons and Lender, Lender may make all or part of such payment or obtain such insurance policies required in this Section 6.5, and take any action under the policies Lender deems prudent.

#### **6.6 Operating Accounts.**

(a) Maintain all of its and all of its domestic Subsidiaries' operating and other deposit accounts and securities accounts with Silicon Valley Bank, in each case subject to Control Agreements in favor of and in form and substance reasonably acceptable to Lender.

(b) Provide Lender five (5) days prior written notice before establishing any Collateral Account at or with any bank or financial institution other than Silicon Valley Bank. For each Collateral Account that Borrower at any time maintains, Borrower shall cause the applicable bank or financial institution at or with which any Collateral Account is maintained to execute and deliver a Control Agreement or other appropriate instrument with respect to such Collateral Account to perfect Lender's Lien in such Collateral Account in accordance with the terms hereunder. The provisions of the previous sentence shall not apply to deposit accounts exclusively used for payroll, payroll taxes and other employee wage and benefit payments to or for the benefit of Borrower's employees and identified to Lender by Borrower as such.

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## 6.7 Intentionally Omitted.

## 6.8 Protection and Registration of Intellectual Property Rights.

(a) (i) Protect, defend and maintain the validity and enforceability of its Intellectual Property; (ii) promptly advise Lender in writing of material infringements of its Intellectual Property; and (iii) not allow any Intellectual Property material to Borrower's business to be abandoned, forfeited or dedicated to the public without Lender's written consent.

(b) If Borrower (i) obtains any Patent, registered Trademark, registered Copyright, registered mask work, or any pending application for any of the foregoing, whether as owner, licensee or otherwise, or (ii) applies for any Patent or the registration of any Trademark, then Borrower shall immediately provide written notice thereof to Lender and shall execute such intellectual property security agreements and other documents and take such other actions as Lender shall request in its good faith business judgment to perfect and maintain a first priority perfected security interest in favor of Lender in such property. If Borrower decides to register any Copyrights or mask works in the United States Copyright Office, Borrower shall: (x) provide Lender with at least fifteen (15) days prior written notice of Borrower's intent to register such Copyrights or mask works together with a copy of the application it intends to file with the United States Copyright Office (excluding exhibits thereto); and (y) execute an intellectual property security agreement and such other documents and take such other actions as Lender may reasonably request in its good faith business judgment to perfect and maintain a first priority perfected security interest in favor of Lender in the Copyrights or mask works intended to be registered with the United States Copyright Office, and hereby authorizes Lender to record such intellectual property security agreement with the United States Copyright Office contemporaneously with filing the Copyright or mask work application(s) with the United States Copyright Office. Borrower shall promptly provide to Lender copies of all applications that it files for Patents or for the registration of Trademarks, Copyrights or mask works, together with evidence of the recording of the intellectual property security agreement necessary for Lender to perfect and maintain a first priority perfected security interest in such property.

(c) Provide written notice to Lender within ten (10) days of entering or becoming bound by any Restricted License (other than over-the-counter software that is commercially available to the public). Borrower shall take such steps as Lender requests to obtain the consent of, or waiver by, any person whose consent or waiver is necessary for (i) any Restricted License to be deemed "Collateral" and for Lender to have a security interest in it that might otherwise be restricted or prohibited by law or by the terms of any such Restricted License, whether now existing or entered into in the future, and (ii) Lender to have the ability in the event of a liquidation of any Collateral to dispose of such Collateral in accordance with Lender's rights and remedies under this Agreement and the other Loan Documents.

**6.9 Litigation Cooperation.** From the date hereof and continuing through the termination of this Agreement, make available to Lender at reasonable times, without expense to Lender, Borrower and its officers, employees and agents and Borrower's books and records, to the extent that Lender may deem them reasonably necessary to prosecute or defend any third-party suit or proceeding instituted by or against Lender with respect to any Collateral or relating to Borrower.

**6.10 Notices of Litigation and Default.** Borrower will give prompt written notice to Lender of any litigation or governmental proceedings pending or threatened (in writing) against Borrower which would reasonably be expected to have a material adverse effect with respect to Borrower. Without limiting or contradicting any other more specific provision of this Agreement, promptly (and in any event within three (3) Business Days) upon Borrower (or any officer thereof) becoming aware of the existence of any Event of Default or event which, with the giving of notice or passage of time, or both, would constitute an Event of Default, Borrower shall give written notice to Lender of such occurrence, which such notice shall include a reasonably detailed description of such Event of Default or event which, with the giving of notice or passage of time, or both, would constitute an Event of Default.

**6.11 Formation or Acquisition of Subsidiaries.** At the time that Borrower or any Subsidiary forms any direct or indirect Subsidiary or acquires any direct or indirect Subsidiary after the Closing Date, Borrower and such Subsidiary shall (a) cause such new Subsidiary to provide to Lender a joinder to this Agreement to cause such Subsidiary to become a co-borrower hereunder, together with such appropriate financing statements and/or Control Agreements, all in form and substance satisfactory to Lender (including being sufficient to grant Lender a first priority Lien (subject to Permitted Liens) in and to the assets of such newly formed or acquired Subsidiary), (b) provide to Lender appropriate certificates and powers and financing statements, pledging all of the direct or beneficial ownership interest in such new Subsidiary, in form and substance satisfactory to Lender, and (c) provide to Lender all other documentation in form and substance satisfactory to Lender, including one or more opinions of counsel satisfactory to Lender, which in its opinion is appropriate with respect to the execution and delivery of the applicable documentation referred to above. Any document, agreement, or instrument executed or issued pursuant to this Section 6.11 shall be a Loan Document.

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**6.12 Dissolution of Ingenex.** Borrower shall cause Ingenex to be dissolved, and shall provide evidence of the same to Lender, in form and content reasonably acceptable to Lender, by no later than December 31, 2010.

**6.13 Further Assurances.** Execute any further instruments and take further action as Lender reasonably requests to perfect or continue Lender's Lien in the Collateral or to effect the purposes of this Agreement and the other Loan Documents. Deliver to Lender, within five (5) days after the same are sent or received, copies of all correspondence, reports, documents and other filings with any Governmental Authority regarding compliance with or maintenance of Governmental Approvals or Requirements of Law or that could reasonably be expected to have a material effect on any of the Governmental Approvals or otherwise on the operations of Borrower.

## **7 NEGATIVE COVENANTS**

Borrower shall not do any of the following without Lender's prior written consent, which consent may be granted or withheld in Lender's sole discretion exercised in good faith in a commercially reasonable manner:

**7.1 Dispositions.** Convey, sell, lease, transfer or otherwise dispose of (collectively, "**Transfer**"), or permit any Subsidiary to Transfer, all or any part of its business or property, except for Transfers (a) of Inventory in the ordinary course of business; (b) of worn-out or obsolete Equipment; and (c) in connection with Permitted Liens and Permitted Investments; and (d) of non-exclusive licenses for the use of the property of Borrower or its Subsidiaries (other than Ingenex) in the ordinary course of business and licenses that could not result in a legal transfer of title of the licensed property but that may be exclusive in respects other than territory and that may be exclusive as to territory only as to discreet geographical areas outside of the United States. Without limiting the foregoing, Borrower shall not Transfer any property or asset to Ingenex.

**7.2 Changes in Business, Management, Control, or Business Locations.** (a) Engage in or permit any Subsidiary to engage in any business other than the businesses currently engaged in by Borrower or such Subsidiary, as applicable, or reasonably related thereto; (b) liquidate or dissolve; or (c) (i) have a change in any Key Person, unless replaced by a Person reasonably acceptable to Lender within thirty (30) days of such change, or (ii) permit or suffer any Change in Control. Borrower shall not, without at least fifteen (15) days prior written notice to Lender: (1) add any new offices or business locations, including warehouses (unless such new offices or business locations contain less than Ten Thousand Dollars (\$10,000) in Borrower's assets or property), (2) change its jurisdiction of organization, (3) change its organizational structure or type, (4) change its legal name, or (5) change any organizational number (if any) assigned by its jurisdiction of organization.

**7.3 Mergers or Acquisitions.** Merge or consolidate, or permit any Subsidiary to merge or consolidate, with any other Person, or acquire, or permit any Subsidiary to acquire, all or substantially all of the capital stock or property of another Person. A Subsidiary may merge or consolidate into Borrower or another Subsidiary.

**7.4 Indebtedness.** Create, incur, assume, or be liable for any Indebtedness, or permit Borrower to do so, other than Permitted Indebtedness.

**7.5 Encumbrance.** Create, incur, allow, or suffer any Lien on any of the Collateral, or assign or convey any right to receive income, including the sale of any Accounts, or permit any of its Subsidiaries to do so, except for Permitted Liens, permit any Collateral not to be subject to the first priority security interest granted herein, or enter into any agreement, document, instrument or other arrangement (except with or in favor of Lender) with any Person which directly or indirectly prohibits or has the effect of prohibiting Borrower or any Subsidiary from assigning, mortgaging, pledging, granting a security interest in or upon, or encumbering any of Borrower's or any Subsidiary's Intellectual Property, except as is otherwise permitted in Section 7.1 hereof and the definition of "Permitted Liens" herein.

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**7.6 Maintenance of Collateral Accounts.** Maintain any Collateral Account except pursuant to the terms of Section 6.6 hereof.

**7.7 Distributions; Investments.** (a) Pay any dividends or make any distribution or payment in respect of any of its capital stock, or redeem, retire or purchase any of its capital stock other than in connection with Permitted Distributions; or (b) directly or indirectly acquire or own any Person, or make any Investment in any Person, other than Permitted Investments, or permit any of its Subsidiaries to do so.

**7.8 Transactions with Affiliates.** Directly or indirectly enter into or permit to exist any material transaction with any Affiliate of Borrower, except for (a) transactions that are in the ordinary course of Borrower's business, upon fair and reasonable terms (when viewed in the context of any series of transactions of which it may be a part, if applicable) that are no less favorable to Borrower than would be obtained in an arm's length transaction with a non-affiliated Person; or (b) transactions among Borrower and its Subsidiaries and among Borrower's Subsidiaries so long as no Event of Default exists or could result therefrom.

**7.9 Subordinated Debt.** (a) Make or permit any payment on any Subordinated Debt, except under the terms of the subordination, Intercreditor, or other similar agreement to which such Subordinated Debt is subject, or (b) amend any provision in any document relating to the Subordinated Debt which would increase the amount thereof or adversely affect the subordination thereof to Obligations owed to Lender.

**7.10 Compliance.** Become an "investment company" or a company controlled by an "investment company", under the Investment Company Act of 1940, as amended, or undertake as one of its important activities extending credit to purchase or carry margin stock (as defined in Regulation U of the Board of Governors of the Federal Reserve System), or use the proceeds of the Credit Extension for that purpose; fail to meet the minimum funding requirements of ERISA, permit a Reportable Event or Prohibited Transaction, as defined in ERISA, to occur; fail to comply with the Federal Fair Labor Standards Act or violate any other law or regulation, if the violation could reasonably be expected to have a material adverse effect on Borrower's business, or permit any of its Subsidiaries to do so; withdraw or permit any Subsidiary to withdraw from participation in, permit partial or complete termination of, or permit the occurrence of any other event with respect to, any present pension, profit sharing and deferred compensation plan which could reasonably be expected to result in any liability of Borrower, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other governmental agency.

**7.11 Indebtedness Payments.** (i) Prepay, redeem, purchase, defease or otherwise satisfy in any manner prior to the scheduled repayment thereof any Indebtedness for borrowed money (other than amounts due under this Agreement or due any Lender) or lease obligations, (ii) amend, modify or otherwise change the terms of any Indebtedness for borrowed money or lease obligations so as to accelerate the scheduled repayment thereof or (iii) repay any notes to officers, directors or shareholders; provided that Borrower may pay compensation to employees, deferred as of the Closing Date, not to exceed \$250,000 in the aggregate.

## **8 EVENTS OF DEFAULT**

Any one of the following shall constitute an event of default (an "**Event of Default**") under this Agreement:

**8.1 Payment Default.** Borrower fails to (a) make any payment of principal or interest on the Credit Extension on its due date, or (b) pay any other Obligations within three (3) Business Days after such Obligations are due and payable (which three (3) day grace period shall not apply to payments due on the Growth Capital Loan A Maturity Date or the Growth Capital Loan B Maturity Date, as applicable). During the cure period, the failure to cure the payment default is not an Event of Default;

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## 8.2 Covenant Default.

(a) Borrower fails or neglects to perform any obligation in Section 6.2, 6.4, 6.5, 6.6, 6.8, 6.11 or 6.12, or violates any covenant in Section 7; or

(b) Borrower fails or neglects to perform, keep, or observe any other term, provision, condition, covenant or agreement contained in this Agreement or any Loan Document to which it is a party, and as to any default (other than those specified in this Section 8) under such other term, provision, condition, covenant or agreement that can be cured, has failed to cure the default within ten (10) days after the occurrence thereof; provided, however, that if the default cannot by its nature be cured within the ten (10) day period or cannot after diligent attempts by Borrower be cured within such ten (10) day period, and such default is likely to be cured within a reasonable time, then Borrower shall have an additional period (which shall not in any case exceed thirty (30) days) to attempt to cure such default, and within such reasonable time period the failure to cure the default shall not be deemed an Event of Default. Grace periods provided under this section shall not apply, among other things, to financial covenants or any other covenants set forth in subsection (a) above;

**8.3 Material Adverse Change.** A Material Adverse Change occurs;

**8.4 Attachment; Levy; Restraint on Business.** (a) (i) The service of process seeking to attach, by trustee or similar process, any funds of Borrower or of any entity under control of Borrower (including a Subsidiary) on deposit or otherwise maintained with Silicon Valley Bank, or (ii) a notice of lien, levy, or assessment is filed against any of Borrower's assets by any government agency, and the same under subclauses (i) and (ii) hereof are not, within ten (10) days after the occurrence thereof, discharged or stayed (whether through the posting of a bond or otherwise); or (b) (i) any material portion of Borrower's assets is attached, seized, levied on, or comes into possession of a trustee or receiver, or (ii) any court order enjoins, restrains, or prevents Borrower from conducting any part of its business;

**8.5 Insolvency.** (a) Borrower is unable to pay its debts (including trade debts) as they become due or otherwise becomes insolvent; (b) Borrower begins an Insolvency Proceeding; or (c) an Insolvency Proceeding is begun against Borrower and not dismissed or stayed within thirty (30) days;

**8.6 Other Agreements.** There is a default in any agreement to which Borrower is a party with a third party or parties resulting in a right by such third party or parties, whether or not exercised, to accelerate the maturity of any Indebtedness in an amount in excess of \$100,000 or that could reasonably be expected to have a Material Adverse Change;

**8.7 Judgments.** One or more final judgments, orders, or decrees for the payment of money in an amount, individually or in the aggregate, of at least \$100,000 (not covered by independent third-party insurance as to which liability has been accepted by such insurance carrier) shall be rendered against Borrower and shall remain unsatisfied, unvacated, or unstayed for a period often (10) days after the entry thereof;

**8.8 Misrepresentations.** Borrower or any Person acting for Borrower makes any representation, warranty, or other statement now or later in this Agreement, any Loan Document or in any writing delivered to Lender or to induce Lender to enter this Agreement or any Loan Document, and such representation, warranty, or other statement is incorrect in any material respect when made;

**8.9 Subordinated Debt.** A default or breach occurs under any agreement between Borrower and any creditor of Borrower that signed a subordination, intercreditor, or other similar agreement with Lender, or any creditor that has signed such an agreement with Lender breaches any material terms of such agreement;

**8.10 Governmental Approvals.** Any Governmental Approval shall have been (a) revoked, rescinded, suspended, modified in an adverse manner or not renewed in the ordinary course for a full term or (b) subject to any decision by a Governmental Authority that designates a hearing with respect to any applications for renewal of any of such Governmental Approval or that could result in the Governmental Authority taking any of the actions described in clause (a) above, and such decision or such revocation, rescission, suspension, modification or non-renewal (i) has, or could reasonably be expected to have, a Material Adverse Change, or (ii) adversely affects the legal qualifications of Borrower to hold such Governmental Approval in any applicable jurisdiction and such revocation, rescission, suspension, modification or non-renewal could reasonably be expected to affect the status of or legal qualifications of Borrower to hold any Governmental Approval in any other jurisdiction.

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## **9 LENDER'S RIGHTS AND REMEDIES**

**9.1 Rights and Remedies.** While an Event of Default occurs and continues Lender may, without notice or demand, do any or all of the following:

- (a) declare in writing all Obligations immediately due and payable (but if an Event of Default described in Section 8.5 occurs all Obligations are immediately due and payable without any action by Lender);
- (b) stop advancing money or extending credit for Borrower's benefit under this Agreement or under any other agreement between Borrower and Lender;
- (c) settle or adjust disputes and claims directly with Account Debtors for amounts on terms and in any order that Lender considers advisable in the exercise of its commercially reasonable discretion, notify any Person owing Borrower money of Lender's security interest in such funds, and verify the amount of such account;
- (d) make any payments and do any acts it considers necessary or reasonable to protect the Collateral and/or its security interest in the Collateral. Borrower shall assemble the Collateral if Lender requests and make it available as Lender reasonably designates. Lender may enter premises where the Collateral is located, take and maintain possession of any part of the Collateral, and pay, purchase, contest, or compromise any Lien which appears to be prior or superior to its security interest and pay all expenses incurred. Borrower grants Lender a license to enter and occupy any of its premises, without charge, to exercise any of Lender's rights or remedies;
- (e) apply to the Obligations any (i) balances and deposits of Borrower it holds, or (ii) any amount held by Lender owing to or for the credit or the account of Borrower;
- (f) ship, reclaim, recover, store, finish, maintain, repair, prepare for sale, advertise for sale, and sell the Collateral. Lender is hereby granted a non-exclusive, royalty-free license or other right to use, without charge, Borrower's labels, Patents, Copyrights, mask works, rights of use of any name, trade secrets, trade names, Trademarks, service marks, and advertising matter, or any similar property as it pertains to the Collateral, in completing production of, advertising for sale, and selling any Collateral and, in connection with Lender's exercise of its rights under this Section, Borrower's rights under all licenses and all franchise agreements inure to Lender's benefit as collateral assignee;
- (g) place a "hold" on any account maintained with Lender and/or deliver a notice of exclusive control, any entitlement order, or other directions or instructions pursuant to any Control Agreement or similar agreements providing control of any Collateral;
- (h) demand and receive possession of Borrower's Books; and
- (i) exercise all rights and remedies available to Lender under the Loan Documents or at law or equity, including all remedies provided under the Code (including disposal of the Collateral pursuant to the terms thereof).

**9.2 Power of Attorney.** Borrower hereby irrevocably appoints Lender as its lawful attorney-in-fact, exercisable upon the occurrence and during the continuance of an Event of Default, to: (a) endorse Borrower's name on any checks or other forms of payment or security; (b) sign Borrower's name on any invoice or bill of lading for any Account or drafts against Account Debtors; (c) settle and adjust disputes and claims about the Accounts directly with Account Debtors, for amounts and on terms Lender determines reasonable; (d) make, settle, and adjust all claims under Borrower's insurance policies; (e) pay, contest or settle any Lien, charge, encumbrance, security interest, and adverse claim in or to the Collateral, or any judgment based thereon, or otherwise take any action to terminate or discharge the same; and (f) transfer the Collateral into the name of Lender or a third party as the Code permits. Borrower hereby appoints Lender as its lawful attorney-in-fact to sign Borrower's name on any documents necessary to perfect or continue the perfection of Lender's security interest in the Collateral regardless of whether an Event of Default has occurred until all Obligations have been satisfied in full. Lender's foregoing appointment as Borrower's attorney in fact, and all of Lender's rights and powers, coupled with an interest, are irrevocable until all Obligations have been fully repaid and performed.

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**9.3 Protective Payments.** If Borrower fails to obtain the insurance called for by Section 6.5 or fails to pay any premium thereon or fails to pay any other amount which Borrower is obligated to pay under this Agreement or any other Loan Document, Lender may obtain such insurance or make such payment, and all amounts so paid by Lender are Lender Expenses and immediately due and payable, bearing interest at the Default Rate, and secured by the Collateral. Lender will make reasonable efforts to provide Borrower with notice of Lender obtaining such insurance at the time it is obtained or within a reasonable time thereafter. No payments by Lender are deemed an agreement to make similar payments in the future or Lender's waiver of any Event of Default.

**9.4 Application of Payments and Proceeds.** Borrower shall not have any right to specify the order or the accounts to which Lender shall allocate or apply any payments required to be made by Borrower to Lender or otherwise received by Lender under this Agreement when any such allocation or application is not specified elsewhere in this Agreement. If an Event of Default has occurred and is continuing, Lender may apply any funds in its possession, whether from Borrower account balances, payments, proceeds realized as the result of any collection of Accounts or other disposition of the Collateral, or otherwise, to the Obligations in such order as Lender shall determine in its sole discretion. Any surplus shall be paid to Borrower or other Persons legally entitled thereto; Borrower shall remain liable to Lender for any deficiency. If Lender, in its good faith business judgment, directly or indirectly enters into a deferred payment or other credit transaction with any purchaser at any sale of Collateral, Lender shall have the option, exercisable at any time, of either reducing the Obligations by the principal amount of the purchase price or deferring the reduction of the Obligations until the actual receipt by Lender of cash therefor.

**9.5 Lender's Liability for Collateral.** So long as Lender complies with reasonable practices regarding the safekeeping of the Collateral in the possession or under the control of Lender, Lender shall not be liable or responsible for: (a) the safekeeping of the Collateral; (b) any loss or damage to the Collateral; (c) any diminution in the value of the Collateral; or (d) any act or default of any carrier, warehouseman, bailee, or other Person. The Credit Parties bear all risk of loss, damage or destruction of the Collateral.

**9.6 No Waiver; Remedies Cumulative.** Lender's failure, at any time or times, to require strict performance by Borrower of any provision of this Agreement or any other Loan Document shall not waive, affect, or diminish any right of Lender thereafter to demand strict performance and compliance herewith or therewith. No waiver hereunder shall be effective unless signed by Lender and then is only effective for the specific instance and purpose for which it is given. Lender's rights and remedies under this Agreement and the other Loan Documents are cumulative. Lender has all rights and remedies provided under the Code, by law, or in equity. Lender's exercise of one right or remedy is not an election, and shall not preclude Lender from exercising any other remedy under this Agreement or other remedy available at law or in equity, and Lender's waiver of any Event of Default is not a continuing waiver. Lender's delay in exercising any remedy is not a waiver, election, or acquiescence.

**9.7 Demand Waiver.** Borrower, for itself and on behalf of each Subsidiary, waives demand, notice of default or dishonor, notice of payment and nonpayment, notice of any default, nonpayment at maturity, release, compromise, settlement, extension, or renewal of accounts, documents, instruments, chattel paper, and guarantees held by Lender on which Borrower is liable.

## **10 NOTICES**

All notices, consents, requests, approvals, demands, or other communication by any party to this Agreement or any other Loan Document must be in writing and shall be deemed to have been validly served, given, or delivered: (a) upon the earlier of actual receipt and three (3) Business Days after deposit in the U.S. mail, first class, registered or certified mail return receipt requested, with proper postage prepaid; (b) upon transmission, when sent by electronic mail or facsimile transmission; (c) one (1) Business Day after deposit with a reputable overnight courier with all charges prepaid; or (d) when delivered, if hand-delivered by messenger, all of which shall be addressed to the party to be notified and sent to the address, facsimile number, or email address indicated below. Lender or Borrower may change its mailing or electronic mail address or facsimile number by giving the other party written notice thereof in accordance with the terms of this Section 10.

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If to Borrower: TITAN PHARMACEUTICALS, INC.  
400 Oyster Point Blvd., Suite 505  
South San Francisco, CA 94080  
Attn: Chief Financial Officer  
Fax: (650)244-4956  
Email: Sbhonsle@titanpharm.com

If to Lender: OXFORD FINANCE CORPORATION  
133 N. Fairfax Street  
Alexandria, VA 22314  
Attn: Tim A. Lex, Chief Operating Officer  
Fax: (703)519-5225  
Email: tlex@oxfordfinance.com

## **11 CHOICE OF LAW, VENUE, JURY TRIAL WAIVER AND JUDICIAL REFERENCE**

California law governs the Loan Documents without regard to principles of conflicts of law. Borrower and Lender each submit to the exclusive jurisdiction of the State and Federal courts in San Diego County, California; provided, however, that nothing in this Agreement shall be deemed to operate to preclude Lender from bringing suit or taking other legal action in any other jurisdiction to realize on the Collateral or any other security for the Obligations, or to enforce a judgment or other court order in favor of Lender. Borrower expressly submits and consents in advance to such jurisdiction in any action or suit commenced in any such court, and Borrower hereby waives any objection that it may have based upon lack of personal jurisdiction improper venue, or forum non conveniens and hereby consents to the granting of such legal or equitable relief as is deemed appropriate by such court. Borrower hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made by registered or certified mail addressed to Borrower at the address set forth in Section 10 of this Agreement and that service so made shall be deemed completed upon the earlier to occur of Borrower's actual receipt thereof or three (3) days after deposit in the U.S. mails, proper postage prepaid.

**TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, BORROWER AND LENDER EACH WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS AGREEMENT, THE LOAN DOCUMENTS OR ANY CONTEMPLATED TRANSACTION, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER IS A MATERIAL INDUCEMENT FOR BOTH PARTIES TO ENTER INTO THIS AGREEMENT. EACH PARTY HAS REVIEWED THIS WAIVER WITH ITS COUNSEL.**

WITHOUT INTENDING IN ANY WAY TO LIMIT THE PARTIES' AGREEMENT TO WAIVE THEIR RESPECTIVE RIGHT TO A TRIAL BY JURY, if the above waiver of the right to a trial by jury is not enforceable, the parties hereto agree that any and all disputes or controversies of any nature between them arising at any time shall be decided by a reference to a private judge, mutually selected by the parties (or, if they cannot agree, by the Presiding Judge of the San Diego County, California Superior Court) appointed in accordance with California Code of Civil Procedure Section 638 (or pursuant to comparable provisions of federal law if the dispute falls within the exclusive jurisdiction of the federal courts), sitting without a jury, in San Diego County, California; and the parties hereby submit to the jurisdiction of such court. The reference proceedings shall be conducted pursuant to and in accordance with the provisions of California Code of Civil Procedure §§ 638 through 645.1, inclusive. The private judge shall have the power, among others, to grant provisional relief, including without limitation, entering temporary restraining orders, issuing preliminary and permanent injunctions and appointing receivers. All such proceedings shall be closed to the public and confidential and all records relating thereto shall be permanently sealed. If during the course of any dispute, a party desires to seek provisional relief, but a judge has not been appointed at that point pursuant to the judicial reference procedures, then such party may apply to the San Diego County, California Superior Court for such relief. The proceeding before the private judge shall be conducted in the same manner as it would be before a court under the rules of evidence applicable to judicial proceedings. The parties shall be entitled to discovery which shall be conducted in the same manner as it would be before a court under the rules of discovery applicable to judicial proceedings. The private judge shall oversee discovery and may enforce all discovery rules and order applicable to judicial proceedings in the same manner as a trial court judge. The parties agree that the selected or appointed private judge shall have the power to decide all issues in the action or proceeding, whether of fact or of law, and shall report a statement of decision thereon pursuant to the California Code of Civil Procedure § 644(a). Nothing in this paragraph shall limit the right of any party at any time to exercise self-help remedies, foreclose against collateral, or obtain provisional remedies. The private judge shall also determine all issues relating to the applicability, interpretation, and enforceability of this paragraph.

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## 12 GENERAL PROVISIONS

**12.1 Successors and Assigns.** This Agreement binds and is for the benefit of the successors and permitted assigns of each party. Borrower may not assign this Agreement or any rights or obligations under it without Lender's prior written consent (which may be granted or withheld in Lender's discretion). Lender has the right, without the consent of or notice to Borrower, to sell, transfer, negotiate, or grant participation in all or any part of, or any interest in, Lender's obligations, rights, and benefits under this Agreement and the other Loan Documents.

**12.2 Indemnification.** Borrower agrees to indemnify, defend and hold Lender and its directors, officers, employees, agents, attorneys, or any other Person affiliated with or representing Lender (each, an "**Indemnified Person**") harmless against: (a) all obligations, demands, claims, and liabilities (collectively, "**Claims**") claimed or asserted by any other party in connection with the transactions contemplated by the Loan Documents; and (b) all losses or expenses (including Lender Expenses) in any way suffered, incurred, or paid by such Indemnified Person as a result of, following from, consequential to, or arising from transactions between Lender and Borrower (including reasonable attorneys' fees and expenses), except for Claims and/or losses directly caused by such Indemnified Person's gross negligence or willful misconduct.

**12.3 Time of Essence.** Time is of the essence for the performance of all Obligations in this Agreement.

**12.4 Severability of Provisions.** Each provision of this Agreement is severable from every other provision in determining the enforceability of any provision.

**12.5 Correction of Loan Documents.** Upon prior written notice to Borrower, Lender may correct patent errors and fill in any blanks in this Agreement and the other Loan Documents consistent with the agreement of the parties.

**12.6 Amendments in Writing; Integration.** All amendments to this Agreement must be in writing and signed by both Lender and Borrower. This Agreement and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of this Agreement and the Loan Documents merge into this Agreement and the Loan Documents.

**12.7 Counterparts.** This Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, are an original, and all taken together, constitute one Agreement.

**12.8 Survival.** All covenants, representations and warranties made in this Agreement continue in full force until this Agreement has terminated pursuant to its terms and all Obligations (other than inchoate indemnity obligations and any other obligations which, by their terms, are to survive the termination of this Agreement) have been satisfied. The obligation of Borrower in Section 12.2 to indemnify Lender shall survive until the statute of limitations with respect to such claim or cause of action shall have run.

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**12.9 Confidentiality.** In handling any confidential information, Lender shall exercise the same degree of care that it exercises for its own proprietary information, but disclosure of information may be made: (a) to Lender's Subsidiaries or Affiliates; (b) to prospective transferees or purchasers of any interest in the Credit Extension (provided, however, Lender shall use commercially reasonable efforts to obtain such prospective transferee's or purchaser's agreement to the terms of this provision); (c) as required by law, regulation, subpoena, or other order; (d) to Lender's regulators or as otherwise required in connection with Lender's examination or audit; (e) as Lender considers appropriate in exercising remedies under the Loan Documents; and (f) to third-party service providers of Lender so long as such service providers have executed a confidentiality agreement with Lender with terms no less restrictive than those contained herein. Confidential information does not include information that either: (i) is in the public domain or in Lender's possession when disclosed to Lender, or becomes part of the public domain after disclosure to Lender; or (ii) is disclosed to Lender by a third party, if Lender does not know that the third party is prohibited from disclosing the information.

Lender may use confidential information for any purpose, including, without limitation, for the development of client databases, reporting purposes, and market analysis, so long as Lender does not disclose Borrower's identity or the identity of any person associated with Borrower unless otherwise expressly permitted by this Agreement. The provisions of the immediately preceding sentence shall survive the termination of this Agreement.

**12.10 Attorneys' Fees, Costs and Expenses.** In any action or proceeding between Borrower and Lender arising out of or relating to the Loan Documents, the prevailing party shall be entitled to recover its reasonable attorneys' fees and other costs and expenses incurred, in addition to any other relief to which it may be entitled.

**12.11 Electronic Execution of Documents.** The words "execution," "signed," "signature" and words of like import in any Loan Document shall be deemed to include electronic signatures or the keeping of records in electronic form, each of which shall be of the same legal effect, validity and enforceability as a manually executed signature or the use of a paper-based recordkeeping systems, as the case may be, to the extent and as provided for in any applicable law, including, without limitation, any state law based on the Uniform Electronic Transactions Act.

**12.12 Captions.** The headings used in this Agreement are for convenience only and shall not affect the interpretation of this Agreement.

**12.13 Construction of Agreement.** The parties mutually acknowledge that they and their attorneys have participated in the preparation and negotiation of this Agreement. In cases of uncertainty this Agreement shall be construed without regard to which of the parties caused the uncertainty to exist.

**12.14 Relationship.** The relationship of the parties to this Agreement is determined solely by the provisions of this Agreement. The parties do not intend to create any agency, partnership, joint venture, trust, fiduciary or other relationship with duties or incidents different from those of parties to an arm's-length contract.

**12.15 Third Parties.** Nothing in this Agreement, whether express or implied, is intended to: (a) confer any benefits, rights or remedies under or by reason of this Agreement on any persons other than the express parties to it and their respective permitted successors and assigns; (b) relieve or discharge the obligation or liability of any person not an express party to this Agreement; or (c) give any person not an express party to this Agreement any right of subrogation or action against any party to this Agreement.

**12.16 Effect of Amendment and Restatement.** Except as otherwise set forth herein, this Agreement is intended to and does completely amend and restate, without novation, the Original Agreement. All security interests granted under the Original Agreement are hereby confirmed and ratified and shall continue to secure all Obligations under this Agreement.

## **13 DEFINITIONS**

**13.1 Definitions.** As used in the Loan Documents, the word "shall" is mandatory, the word "may" is permissive, the word "or" is not exclusive, the words "includes" and "including" are not limiting, the singular includes the plural, and numbers denoting amounts that are set off in brackets are negative. As used in this Agreement, the following capitalized terms have the following meaning:

**"Account"** is any "account" as defined in the Code with such additions to such term as may hereafter be made, and includes, without limitation, all accounts receivable and other sums owing to Borrower.

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**“Account Debtor”** is any “account debtor” as defined in the Code with such additions to such term as may hereafter be made.

**“Affiliate”** is, with respect to any Person, each other Person that owns or controls directly or indirectly the Person, any Person that controls or is controlled by or is under common control with the Person, and each of that Person’s senior executive officers, directors, partners and, for any Person that is a limited liability company, that Person’s managers and members.

**“Agreement”** is defined in the preamble hereof.

**“Borrower”** is defined in the preamble hereof.

**“Borrower’s Books”** are all Borrower’s books and records including ledgers, federal and state tax returns, records regarding Borrower’s assets or liabilities, the Collateral, business operations or financial condition, and all computer programs or storage or any equipment containing such information.

**“Borrowing Resolutions”** are, with respect to any Person, those resolutions adopted by such Person’s Board of Directors and delivered by such Person to Lender approving the Loan Documents to which such Person is a party and the transactions contemplated thereby, together with a certificate executed by its secretary on behalf of such Person certifying that (a) such Person has the authority to execute, deliver, and perform its obligations under each of the Loan Documents to which it is a party, (b) that attached as Exhibit A to such certificate is a true, correct, and complete copy of the resolutions then in full force and effect authorizing and ratifying the execution, delivery, and performance by such Person of the Loan Documents to which it is a party, (c) the name(s) of the Person(s) authorized to execute the Loan Documents on behalf of such Person, together with a sample of the true signature(s) of such Person(s), and (d) that Lender may conclusively rely on such certificate unless and until such Person shall have delivered to Lender a further certificate canceling or amending such prior certificate.

**“Business Day”** is any day that is not a Saturday, Sunday or a day on which Lender is closed.

**“Cash Equivalents”** means (a) marketable direct obligations issued or unconditionally guaranteed by the United States or any agency or any State thereof having maturities of not more than one (1) year from the date of acquisition; (b) commercial paper maturing no more than one (1) year after its creation and having the highest rating from either Standard & Poor’s Ratings Group or Moody’s Investors Service, Inc.; (c) Lender’s certificates of deposit issued maturing no more than one (1) year after issue; and (d) money market funds at least ninety-five percent (95%) of the assets of which constitute Cash Equivalents of the kinds described in clauses (a) through (c) of this definition.

**“Change in Control”** is a transaction in which any **“person”** or **“group”** (within the meaning of Section 13(d) and 14(d)(2) of the Securities Exchange Act of 1934, as amended) becomes the **“beneficial owner”** (as defined in Rule 13d-3 under the Securities Exchange Act of 1934, as amended), directly or indirectly, of greater than 49% of the shares of all classes of stock then outstanding of Borrower ordinarily entitled to vote in the election of directors.

**“Closing Date”** is the date on which all of the conditions of Section 3 of this Agreement have been satisfied or waived by Lender.

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**“Code”** is the Uniform Commercial Code, as the same may, from time to time, be enacted and in effect in the State of California; provided, that, to the extent that the Code is used to define any term herein or in any Loan Document and such term is defined differently in different Articles or Divisions of the Code, the definition of such term contained in Article or Division 9 shall govern; provided further, that in the event that, by reason of mandatory provisions of law, any or all of the attachment, perfection, or priority of, or remedies with respect to, Lender’s Lien on any Collateral is governed by the Uniform Commercial Code in effect in a jurisdiction other than the State of California, the term **“Code”** shall mean the Uniform Commercial Code as enacted and in effect in such other jurisdiction solely for purposes on the provisions thereof relating to such attachment, perfection, priority, or remedies and for purposes of definitions relating to such provisions.

**“Collateral”** is any and all properties, rights and assets of Borrower described on Exhibit A.

**“Collateral Account”** is any Deposit Account, Securities Account, or Commodity Account.

**“Commodity Account”** is any “commodity account” as defined in the Code with such additions to such term as may hereafter be made.

**“Compliance Certificate”** is that certain certificate in the form attached hereto as Exhibit B.

**“Contingent Obligation”** is, for any Person, any direct or indirect liability, contingent or not, of that Person for (a) any indebtedness, lease, dividend, letter of credit or other obligation of another such as an obligation directly or indirectly guaranteed, endorsed, co-made, discounted or sold with recourse by that Person, or for which that Person is directly or indirectly liable; (b) any obligations for undrawn letters of credit for the account of that Person; and (c) all obligations from any interest rate, currency or commodity swap agreement, interest rate cap or collar agreement, or other agreement or arrangement designated to protect a Person against fluctuation in interest rates, currency exchange rates or commodity prices; but “Contingent Obligation” does not include endorsements in the ordinary course of business. The amount of a Contingent Obligation is the stated or determined amount of the primary obligation for which the Contingent Obligation is made or, if not determinable, the maximum reasonably anticipated liability for it determined by the Person in good faith; but the amount may not exceed the maximum of the obligations under any guarantee or other support arrangement.

**“Control Agreement”** is any control agreement entered into among the depository institution at which Borrower maintains a Deposit Account or the securities intermediary or commodity intermediary at which Borrower maintains a Securities Account or a Commodity Account, Borrower, and Lender pursuant to which Lender obtains control (within the meaning of the Code) over such Deposit Account, Securities Account, or Commodity Account; provided that, Lender shall not exercise control under any such Control Agreement unless an Event of Default occurs.

**“Copyrights”** are any and all copyright rights, copyright applications, copyright registrations and like protections in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret.

**“Credit Extension”** is the Growth Capital Advances.

**“Default Rate”** is defined in Section 2.2(b).

**“Deposit Account”** is any “deposit account” as defined in the Code with such additions to such term as may hereafter be made.

**“Designated Deposit Account”** is any of Borrower’s deposit accounts, including account numbers 3300680880 and 3300680895, maintained with Silicon Valley Bank.

**“Disbursement Letter”** is that certain form attached hereto as Exhibit D.

**“Dollars,” “dollars”** and **“\$”** each mean lawful money of the United States.

**“Equipment”** is all “equipment” as defined in the Code with such additions to such term as may hereafter be made, and includes without limitation all machinery, fixtures, goods, vehicles (including motor vehicles and trailers), and any interest in any of the foregoing.

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**“ERISA”** is the Employee Retirement Income Security Act of 1974, and its regulations.

**“Event of Default”** is defined in Section 8.

**“Final Payments”** means, collectively, the Growth Capital Loan A Final Payment and the Growth Capital Loan B Final Payment.

**“Funding Date”** is the date on which the Growth Capital Loan B is made to or on account of Borrower.

**“GAAP”** is generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other Person as may be approved by a significant segment of the accounting profession, which are applicable to the circumstances as of the date of determination.

**“General Intangibles”** is all “general intangibles” as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation, all Intellectual Property, claims, income and other tax refunds, security and other deposits, payment intangibles, contract rights, options to purchase or sell real or personal property, rights in all litigation presently or hereafter pending (whether in contract, tort or otherwise), insurance policies (including without limitation key man, property damage, and business interruption insurance), payments of insurance and rights to payment of any kind.

**“Governmental Approval”** is any consent, authorization, approval, order, license, franchise, permit, certificate, accreditation, registration, filing or notice, of, issued by, from or to, or other act by or in respect of, any Governmental Authority.

**“Governmental Authority”** is any nation or government, any state or other political subdivision thereof, any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative functions of or pertaining to government, any securities exchange and any self-regulatory organization.

**“Growth Capital Advance”** or **“Growth Capital Advances”** means, individually or collectively, as the context dictates, the Growth Capital Loan A and or the Growth Capital Loan B.

**“Growth Capital Loan A”** is defined in Section 2.1.1(a).

**“Growth Capital Loan A Final Payment”** means a fee (in addition to and not a substitution for any other payment due hereunder) in the amount of One Hundred Eighty Thousand Dollars (\$180,000).

**“Growth Capital Loan A Maturity Date”** is January 1, 2013, or such earlier date as the Growth Capital Loan A or any portion of the Obligations is accelerated, whether by prepayment or otherwise.

**“Growth Capital Loan B”** is defined in Section 2.1.1(b).

**“Growth Capital Loan B Amortization Date”** means August 1, 2011.

**“Growth Capital Loan B Final Payment”** means a fee (in addition to and not a substitution for any other payment due hereunder) in the amount of Three Hundred Thousand Dollars (\$300,000); provided that, if the Obligations are repaid prior to the first anniversary of the Closing Date solely as a result of a Royalty Monetization Deal, the “Growth Capital Loan B Final Payment” shall be reduced to One Hundred Seventy Five Thousand Dollars (\$175,000); provided further that, if a Royalty Monetization Deal (and prepayment as a result thereof) does not occur within the first anniversary of the Closing Date, the “Growth Capital Loan B Final Payment” shall revert to Three Hundred Thousand Dollars (\$300,000).

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**“Growth Capital Loan B Maturity Date”** is January 1, 2014, or such earlier date as the Growth Capital Loan B or any portion of the Obligations is accelerated, whether by prepayment or otherwise.

**“Indebtedness”** is (a) indebtedness for borrowed money or the deferred price of property or services, such as reimbursement and other obligations for surety bonds and letters of credit, (b) obligations evidenced by notes, bonds, debentures or similar instruments, (c) capital lease obligations, and (d) Contingent Obligations.

**“Indemnified Person”** is defined in Section 12.2.

**“Ingenex”** is Ingenex, Inc., a majority-owned Subsidiary of Borrower.

**“Insolvency Proceeding”** is any proceeding by or against any Person under the United States Bankruptcy Code, or any other bankruptcy or insolvency law, including assignments for the benefit of creditors, compositions, extensions generally with its creditors, or proceedings seeking reorganization, arrangement, or other relief.

**“Intellectual Property”** means all of Borrower’s right, title, and interest in and to the following:

- (a) its Copyrights, Trademarks and Patents;
- (b) any and all trade secrets and trade secret rights, including, without limitation, any rights to unpatented inventions, know-how, operating manuals;
- (c) any and all source code;
- (d) any and all design rights which may be available to Borrower;
- (e) any and all claims for damages by way of past, present and future infringement of any of the foregoing, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the Intellectual Property rights identified above; and
- (f) all amendments, renewals and extensions of any of the Copyrights, Trademarks or Patents.

**“Interest Only Period”** means the period of time commencing on the Funding Date through the day before the Growth Capital Loan B Amortization Date.

**“Inventory”** is all “inventory” as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all merchandise, raw materials, parts, supplies, packing and shipping materials, work in process and finished products, including without limitation such inventory as is temporarily out of Borrower’s custody or possession or in transit and including any returned goods and any documents of title representing any of the above.

**“Investment”** is any beneficial ownership interest in any Person (including stock, partnership interest or other securities), and any loan, advance or capital contribution to any Person.

**“IP Agreement”** is that certain Amended and Restated Intellectual Property Security Agreement executed and delivered by Borrower to Lender dated as of the Closing Date.

**“Key Person”** is any of the President or Executive Chairman of the Board of Borrower.

**“Lender”** is defined in the preamble hereof.

**“Lender Expenses”** are all audit fees (provided that Borrower shall not be responsible to reimburse Lender for audit fees incurred by Lender for more than one (1) audit per fiscal year unless such additional audit is conducted following the occurrence of an Event of Default) and reasonable expenses, costs, and expenses (including reasonable attorneys’ fees and expenses) for preparing, amending, negotiating, administering, defending and enforcing the Loan Documents (including, without limitation, those incurred in connection with appeals or Insolvency Proceedings) or otherwise incurred with respect to Borrower in connection with the transactions contemplated hereby.

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**“LIBOR Rate”** means, an interest rate *per annum* (rounded upward, if necessary, to the nearest 1/10,000th of one percent (0.0001%)) equal to LIBOR on the applicable Funding Date.

**“LIBOR Margin”** is, with respect to the Growth Capital Loan A, 12.72%; and, with respect to the Growth Capital Loan B, 12.71%.

**“LIBOR”** means the rate of interest per annum determined by Lender to be the per annum rate of interest at which deposits in United States Dollars are offered to Lender in the London interbank market (rounded upward, if necessary, to the nearest 1/10,000th of one percent (0.0001%)) in which Lender customarily participates at 11:00 a.m. (local time in such interbank market) for a 3-month period and published in The Wall Street Journal two (2) Business Days prior to the making of any Growth Capital Advance and in an amount approximately equal to the amount of such Growth Capital Advance.

**“Lien”** is a claim, mortgage, deed of trust, levy, charge, pledge, security interest or other encumbrance of any kind, whether voluntarily incurred or arising by operation of law or otherwise against any property.

**“Loan Documents”** are, collectively, this Agreement, the IP Agreement, the Perfection Certificate, the Promissory Notes, the Disbursement Letter, any other note, or notes or guaranties executed by Borrower or any Subsidiary, and any other present or future agreement between Borrower and/or any Subsidiary and/or for the benefit of Lender in connection with this Agreement, all as amended, restated, or otherwise modified.

**“Material Adverse Change”** is (a) a material impairment in the perfection or priority of Lender’s Lien in the Collateral or in the value of such Collateral; (b) a material adverse change in the business, operations, or condition (financial or otherwise) of Borrower; or (c) a material impairment of the prospect of repayment of any portion of the Obligations.

**“Obligations”** are Borrower’s obligation to pay when due any debts, principal, interest, Lender Expenses and other amounts Borrower owes Lender now or later, whether under this Agreement, the Loan Documents, or otherwise, including, without limitation, all obligations relating to letters of credit (including reimbursement obligations for drawn and undrawn letters of credit), cash management services, and foreign exchange contracts, if any, and including interest accruing after Insolvency Proceedings begin and debts, liabilities, or obligations of Borrower assigned to Lender, and the performance of Borrower’s duties under the Loan Documents.

**“Operating Documents”** are, for any Person, such Person’s formation documents, as certified with the Secretary of State of such Person’s state of formation on a date that is no earlier than 30 days prior to the Closing Date, and, (a) if such Person is a corporation, its bylaws in current form, (b) if such Person is a limited liability company, its limited liability company agreement (or similar agreement), and (c) if such Person is a partnership, its partnership agreement (or similar agreement), each of the foregoing with all current amendments or modifications thereto.

**“Patents”** means all patents, patent applications and like protections including without limitation improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same.

**“Perfection Certificate”** is defined in Section 5.1.

**“Permitted Distributions”** means:

(a) purchases of capital stock from former employees, consultants and directors pursuant to repurchase agreements or other similar agreements in an aggregate amount not to exceed \$100,000 in any fiscal year, provided that at the time of such purchase no Event of Default has occurred and is continuing;

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- (b) distributions or dividends consisting solely of Borrower's capital stock;
  - (c) purchases for value of any rights distributed in connection with any stockholder rights plan;
  - (d) purchases of capital stock or options to acquire such capital stock with the proceeds received from a substantially concurrent issuance of capital stock or convertible securities;
  - (e) purchases of capital stock pledged as collateral for loans to employees; and
  - (f) purchases of capital stock in connection with the exercise of stock options or stock appreciation rights by way of cashless exercise or in connection with the satisfaction of withholding tax obligations.

**“Permitted Indebtedness” is:**

- (a) Borrower's Indebtedness to Lender under this Agreement and any other Loan Document;
- (b) (i) any Indebtedness that does not exceed \$100,000 in principal amount existing on the Closing Date, and (ii) any Indebtedness in excess of \$100,000 in principal amount existing on the Closing Date and shown on the Perfection Certificate;
- (c) Subordinated Debt;
- (d) unsecured Indebtedness to trade creditors incurred in the ordinary course of business;
- (e) capitalized leases and purchase money Indebtedness not to exceed \$100,000 in the aggregate in any fiscal year secured by Permitted Liens;
- (f) Indebtedness for deferred compensation in accordance with, and subject to the terms and conditions of, Section 7.1 l(iii); and
- (g) refinanced Permitted Indebtedness, provided that the amount of such Indebtedness is not increased except by an amount equal to a reasonable premium or other reasonable amount paid in connection with such refinancing and by an amount equal to any existing, but unutilized, commitment thereunder.

**“Permitted Investments” are:**

- (a) Investments shown on the Perfection Certificate and existing on the Closing Date;
- (b) Investments permitted by Borrower's investment policy, as amended from time to time, provided that such investment policy (and any amendment thereto) has been approved by Lender;
- (c) Investments (i) by Borrower in Subsidiaries not to exceed \$100,000 in the aggregate in any fiscal year and (ii) by Subsidiaries in other Subsidiaries not to exceed \$100,000 in the aggregate in any fiscal year or in Borrower; provided that neither Borrower nor any Subsidiary shall make any investment in Ingenex, provided that Borrower may make investments in or for the benefit of Ingenex not to exceed \$60,000 per year on account of the license arrangement between Ingenex and Pfizer;
- (d) Investments consisting of Collateral Accounts in the name of Borrower or any Subsidiary so long as Lender has a first priority, perfected security interest in such Collateral Accounts;
- (e) Investments (including debt obligations) received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the ordinary course of business;

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(f) Investments permitted by Section 7.3; and

(g) joint ventures or strategic alliances in the ordinary course of Borrower's business consisting of (A) (i) non-exclusive licenses of Intellectual Property granted to third parties in the ordinary course of business, and (ii) licenses of Intellectual Property that could not result in a legal transfer of title of the licensed property that may be exclusive in respects other than territory and that may be exclusive as to territory only as to discreet geographical areas outside of the United States; (B) the development of such Intellectual Property; or (C) the providing of technical support; provided that any cash investments by Borrower do not exceed \$100,000 in the aggregate in any fiscal year; provided further that the foregoing dollar limitation shall not be applicable in connection with any joint venture or strategic alliance entered into for the development of Probuphine, provided that (x) Borrower at all times maintains all ownership and title to the Probuphine product line and the underlying Intellectual Property related thereto, and (y) Borrower does not transfer any cash or other Collateral to any joint venture counterparty or strategic alliance counterparty in connection with any such joint venture or strategic alliance.

Notwithstanding the foregoing, Permitted Investments shall not include, and Borrower and each Subsidiary is prohibited from purchasing, purchasing participations in, entering into any type of swap or other equivalent derivative transaction, or otherwise holding or engaging in any ownership interest in any type of debt instrument, including, without limitation, any corporate or municipal bonds with a long-term nominal maturity for which the interest rate is reset through a dutch auction and more commonly referred to as an "auction rate security."

**"Permitted Liens" are:**

(a) (i) Liens securing Permitted Indebtedness described under clause (b) of the definition of "Permitted Indebtedness" or (ii) Liens arising under this Agreement or other Loan Documents;

(b) Liens for taxes, fees, assessments or other government charges or levies, either not delinquent or being contested in good faith and for which Borrower maintains adequate reserves on its Books, provided that no notice of any such Lien has been filed or recorded under the Internal Revenue Code of 1986, as amended, and the Treasury Regulations adopted thereunder, if such Lien would be superior to any of Lender's Liens securing the Obligations;

(c) Liens (including with respect to capital leases) (i) on property (including accessions, additions, parts, replacements, fixtures, improvements and attachments thereto, and the proceeds thereof) acquired or held by Borrower or its Subsidiaries (other than Ingenex) incurred for financing such property (including accessions, additions, parts, replacements, fixtures, improvements and attachments thereto, and the proceeds thereof) other than Accounts, or (ii) existing on property (and accessions, additions, parts, replacements, fixtures, improvements and attachments thereto, and the proceeds thereof) when acquired other than Accounts, if the Lien is confined to such property (including accessions, additions, parts, replacements, fixtures, improvements and attachments thereto, and the proceeds thereof);

(d) Liens incurred in the extension, renewal or refinancing of the indebtedness secured by Liens described in (a) through (c), but any extension, renewal or replacement Lien must be limited to the property encumbered by the existing Lien and the principal amount of the indebtedness it secures may not increase;

(e) leases or subleases of real property granted in the ordinary course of Borrower's business, and leases, subleases, non-exclusive licenses or sublicenses of personal property (other than Intellectual Property) granted in the ordinary course of Borrower's business, if the leases, subleases, licenses and sublicenses do not prohibit granting Lender a security interest therein;

(f) (i) non-exclusive licenses of Intellectual Property granted to third parties in the ordinary course of business, and (ii) licenses of Intellectual Property that could not result in a legal transfer of title of the licensed property that may be exclusive in respects other than territory and that may be exclusive as to territory only as to discreet geographical areas outside of the United States;

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(g) leases or subleases granted in the ordinary course of Borrower's business, including in connection with Borrower's leased premises or leased property;

(h) Liens in favor of other financial institutions arising in connection with Borrower's deposit or securities accounts held at such institutions;

(i) Liens of carriers, warehousemen, suppliers, or other Persons that are possessory in nature arising in the ordinary course of business so long as such Liens attach only to Inventory, securing liabilities in the aggregate amount not to exceed \$100,000 and which are not delinquent or remain payable without penalty or which are being contested in good faith and by appropriate proceedings which proceedings have the effect of preventing the forfeiture or sale of the property subject thereto;

(j) Liens to secure payment of workers' compensation, employment insurance, old-age pensions, social security and other like obligations incurred in the ordinary course of business (other than Liens imposed by ERISA); and

(k) Liens other than those described above which do not at any time exceed \$25,000 in the aggregate.

**"Person"** is any individual, sole proprietorship, partnership, limited liability company, joint venture, company, trust, unincorporated organization, association, corporation, institution, public benefit corporation, firm, joint stock company, estate, entity or government agency.

**"Promissory Note"** or **"Promissory Notes"** means the Secured Promissory Note issued under the Original Agreement in connection with the Growth Capital Loan A or, as the context dictates, the Growth Capital Loan B Secured Promissory Note in substantially the form attached hereto as Exhibit C.

**"Registered Organization"** is any "registered organization" as defined in the Code with such additions to such term as may hereafter be made

**"Requirement of Law"** is as to any Person, the organizational or governing documents of such Person, and any law (statutory or common), treaty, rule or regulation or determination of an arbitrator or a court or other Governmental Authority, in each case applicable to or binding upon such Person or any of its property or to which such Person or any of its property is subject.

**"Responsible Officer"** is any of the Executive Chairman, President, Chief Financial Officer and Controller of Borrower.

**"Restricted License"** is any material license or other material agreement with respect to which Borrower is the licensee (a) that prohibits or otherwise restricts Borrower from granting a security interest in Borrower's interest in such license or agreement or any other property, or (b) for which a default under or termination of could interfere with the Lender's right to sell any Collateral.

**"Royalty Monetization Deal"** means an arm's-length, bona fide transaction involving the sale, licensing or other transfer of all or a substantial portion of the Borrower's rights in Fanapt (iloperidone) together with the related intellectual property, which transaction may be structured as a loan provided such loan is repayable only from royalties from Fanapt, is non-recourse to the Borrower and the proceeds of such transaction are utilized to repay in full the Obligations.

**"Securities Account"** is any "securities account" as defined in the Code with such additions to such term as may hereafter be made.

**"Subordinated Debt"** is (a) Indebtedness incurred by Borrower subordinated to Borrower's Indebtedness owed to Lender and which is reflected in a written agreement in a manner and form reasonably acceptable to Lender and approved by Lender in writing, and (b) to the extent the terms of subordination do not change adversely to Lender, refinancings, refundings, renewals, amendments or extensions of any of the foregoing.

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**“Subsidiary”** is, as to any Person, a corporation, partnership, limited liability company or other entity of which shares of stock or other ownership interests having ordinary voting power (other than stock or such other ownership interests having such power only by reason of the happening of a contingency) to elect a majority of the board of directors or other managers of such corporation, partnership or other entity are at the time owned, or the management of which is otherwise controlled, directly or indirectly through one or more intermediaries, or both, by such Person. Unless the context otherwise requires, each reference to a Subsidiary herein shall be a reference to a Subsidiary of Borrower.

**“Trademarks”** means any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Borrower connected with and symbolized by such trademarks.

**“Transfer”** is defined in Section 7.1.

**“Warrant”** is that certain Warrant to Purchase Stock dated as of the Closing Date executed by Borrower in favor of Lender.

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the Closing Date.

BORROWER:

TITAN PHARMACEUTICALS, INC.

By /s/ Sunil Bhonsle

Name: Sunil Bhonsle

Title: President

LENDER:

OXFORD FINANCE CORPORATION

By /s/ T.A. Lex

Name: T.A. Lex

Title: COO

*[Signature Page to Amended and Restated Loan and Security Agreement]*

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**EXHIBIT A – COLLATERAL DESCRIPTION**

The Collateral consists of all of Borrower's right, title and interest in and to the following personal property:

All goods, Accounts (including health-care receivables), Equipment, Inventory, contract rights or rights to payment of money (including but not limited to any royalty or similar rights to payment arising under or related to that certain Sublicense Agreement among Borrower and Novartis Pharma A.G. (and its successors and assigns, "Novartis") dated as of November 20, 1997 and that certain Sublicense Agreement among Novartis and Vanda Pharmaceuticals, Inc. (and its successors and assigns) dated as of June 4, 2004; each as amended from time to time), leases, license agreements, franchise agreements, General Intangibles, commercial tort claims, documents, instruments (including any promissory notes), chattel paper (whether tangible or electronic), cash, deposit accounts, fixtures, letters of credit rights (whether or not the letter of credit is evidenced by a writing), securities, and all other investment property, supporting obligations, and financial assets, whether now owned or hereafter acquired, wherever located; and

All Borrower's Books relating to the foregoing, and any and all claims, rights and interests in any of the above and all substitutions for, additions, attachments, accessories, accessions and improvements to and replacements, products, proceeds and insurance proceeds of any or all of the foregoing.

**EXHIBIT B – COMPLIANCE CERTIFICATE**

TO: OXFORD FINANCE CORPORATION  
FROM: TITAN PHARMACEUTICALS, INC.

Date: \_\_\_\_\_

The undersigned authorized officer of TITAN PHARMACEUTICALS, INC. (“Borrower”) certifies that under the terms and conditions of the Amended and Restated Loan and Security Agreement between Borrower and Oxford Finance Corporation (the “Agreement”):

(1) Borrower is in complete compliance for the period ending with all required covenants except as noted below; (2) there are no Events of Default; (3) all representations and warranties in the Agreement are true and correct in all material respects on this date except as noted below; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date; (4) Borrower, and each of its Subsidiaries, has timely filed all required tax returns and reports, and Borrower has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower except as otherwise permitted pursuant to the terms of Section 5.8 of the Agreement; and (5) no Liens have been levied or claims made against Borrower (or any of its Subsidiaries) relating to unpaid employee payroll or benefits of which Borrower has not previously provided written notification to Lender.

Attached are the required documents supporting the certification. The undersigned certifies that these are prepared in accordance with GAAP consistently applied from one period to the next except as explained in an accompanying letter or footnotes. The undersigned acknowledges that no borrowings may be requested at any time or date of determination that Borrower is not in compliance with any of the terms of the Agreement, and that compliance is determined not just at the date this certificate is delivered. Capitalized terms used but not otherwise defined herein shall have the meanings given them in the Agreement.

**Please indicate compliance status by circling Yes/No under “Complies” column.**

<u>Reporting Covenant</u>	<u>Required</u>	<u>Complies</u>	
Quarterly financial statements with Compliance Certificate	Quarterly within 45 days	Yes	No
Annual financial statement (CPA Audited) + CC	FYE within 120 days	Yes	No
10-Q, 10-K and 8-K	Within 5 days after filing with SEC*	Yes	No
Account statements (bank, investment, etc.)	Monthly (and/or upon receipt) within 10 days	Yes	No

\* deemed delivered when posted on Borrower’s website

The following Intellectual Property was registered (or a registration application submitted) after the Closing Date (if no registrations, state “None”)

<u>Financial Covenant</u>	<u>Required</u>	<u>Actual</u>	<u>Complies</u>
None			

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The following are the exceptions with respect to the certification above: (If no exceptions exist, state "No exceptions to note.")

TITAN PHARMACEUTICALS, INC.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**LENDER USE ONLY**

Received by: \_\_\_\_\_  
AUTHORIZED SIGNER

Date: \_\_\_\_\_

Verified: \_\_\_\_\_  
AUTHORIZED SIGNER

Date:

Compliance Status:    Yes   No

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**EXHIBIT C**

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**GROWTH CAPITAL LOAN B  
SECURED PROMISSORY NOTE**

\$5,000,000

Dated: September 27, 2010

FOR VALUE RECEIVED, the undersigned, TITAN PHARMACEUTICALS, INC., a Delaware corporation ("Borrower"), HEREBY PROMISES TO PAY to the order of OXFORD FINANCE CORPORATION ("Lender") the principal amount of Five Million Dollars (\$5,000,000) or such lesser amount as shall equal the outstanding principal balance of the Growth Capital Loan B made to Borrower by Lender pursuant to the Loan Agreement (defined below), and to pay all other amounts due with respect to the Growth Capital Loan B on the dates and in the amounts set forth in the Loan Agreement. Capitalized terms, unless defined in this Growth Capital Loan B Secured Promissory Note (this "Note"), shall have the meaning given such capitalized term in the Loan Agreement.

Interest on the principal amount of this Note from the date of this Note shall accrue at 13% per annum based on a 360-day year of twelve 30-day months or, if applicable, the Default Rate. Commencing on August 1, 2011, and continuing on the first day of each successive calendar month thereafter, Borrower shall make to Lender thirty (30) equal payments of principal and accrued interest on the then outstanding principal amount. Any and all remaining principal and interest shall be due and payable on the Growth Capital Loan B Maturity Date. In addition to the foregoing payments, on the Growth Capital Loan B Maturity Date (or upon earlier repayment, whether as a result of acceleration or otherwise) the Growth Capital Loan B Final Payment (as defined in and subject to the terms and conditions of the Loan Agreement) shall be due and payable by Borrower to Lender.

Principal, interest and all other amounts due with respect to the Growth Capital Loan B, are payable in lawful money of the United States of America to Lender as set forth in the Loan Agreement. The principal amount of this Note and the interest rate applicable thereto, and all payments made with respect thereto, shall be recorded by Lender and, prior to any transfer hereof, endorsed on the grid attached hereto which is part of this Note.

This Note is the Note referred to in, and is entitled to the benefits of, the Amended and Restated Loan and Security Agreement, dated as of the Closing Date (as defined therein), to which Borrower and Lender are parties (as amended from time to time, the "Loan Agreement"). The Loan Agreement, among other things, (a) provides for the making of this secured Growth Capital Loan B to Borrower, and (b) contains provisions for acceleration of the maturity hereof upon the happening of certain stated events.

This Note may not be prepaid except as provided in the Loan Agreement. This Note and the obligation of Borrower to repay the unpaid principal amount of the Growth Capital Loan B, interest on the Growth Capital Loan B and all other amounts due Lender under the Loan Agreement is secured under the Loan Agreement.

Presentment for payment, demand, notice of protest and all other demands and notices of any kind in connection with the execution, delivery, performance and enforcement of this Note are hereby waived.

Borrower shall pay all reasonable fees and expenses, including, without limitation, reasonable attorneys' fees and costs, incurred by Lender in the enforcement or attempt to enforce any of Borrower's obligations hereunder not performed when due. This Note shall be governed by, and construed and interpreted in accordance with, the laws of the State of California.

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IN WITNESS WHEREOF, the parties hereto have caused this Note to be executed as of the Closing Date.

**TITAN PHARMACEUTICALS, INC.**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title \_\_\_\_\_

*[Signature Page to Growth Capital Loan B Secured Promissory Note]*

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**LOAN INTEREST RATE AND PAYMENTS OF PRINCIPAL**

Date

Principal  
Amount

Interest Rate

Scheduled  
Payment Amount

Notation By

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**EXHIBIT D**

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**DISBURSEMENT LETTER**

The undersigned, being the duly elected and acting President of **TITAN PHARMACEUTICALS, INC.**, a Delaware corporation ("**Borrower**"), does hereby certify to **OXFORD FINANCE CORPORATION** ("**Lender**"), in connection with that certain Amended and Restated Loan and Security Agreement dated as of September 27, 2010 by and between Borrower and Lender (the "Loan Agreement"; with other capitalized terms used below having the meanings ascribed thereto in the Loan Agreement) that:

1. The representations and warranties made by Borrower in Section 5 of the Loan Agreement and in the other Loan Documents are true, correct and complete in all material respects on the date hereof; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, correct and complete in all material respects as of such date.
2. No event or condition has occurred that would constitute an Event of Default under the Loan Agreement or any other Loan Document.
3. Borrower is in compliance with the covenants and requirements contained in Sections 4, 6 and 7 of the Loan Agreement.
4. All conditions referred to in Section 3 of the Loan Agreement to the making of the Credit Extension to be made on or about the date hereof have been satisfied.
5. No Material Adverse Change has occurred.
6. The proceeds of the Growth Capital Loan B shall be disbursed as follows:

<u>Disbursement from Lender:</u>	
Growth Capital Loan B Amount	\$5,000,000.00
<u>Plus:</u>	
Deposit	\$ 25,000.00
<u>Less:</u>	
Legal Fees and costs	(\$ [TBD])
Facility Fee	(\$125,000.00)
<u>Less:</u>	
Legal Fees and costs	\$ [TBD]
Balance of Facility Fee	\$ 100,000.00
Net proceeds due from Lender to Borrower:	<u>\$</u>

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7. The aggregate proceeds shall be wired to the Borrower as follows:

Account Name: Titan Pharmaceuticals, Inc.  
Bank Name: Silicon Valley Bank  
Bank Address: 3003 Tasman Drive  
Santa Clara, CA 95054  
Account Number: 3300680880  
ABA Number: 121140399

Dated as of the date first set forth above.

**BORROWER:**

**TITAN PHARMACEUTICALS, INC.**

By \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**LENDER:**

**OXFORD FINANCE CORPORATION**

By \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

*[Signature Page to Disbursement Letter]*

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**ANNEX A**

**(Amortization Schedule – Growth Capital Loan A)**

[hardcopy to be attached]

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**ANNEX B**

**(Amortization Schedule – Growth Capital Loan B)**

[hardcopy to be attached]

## CERTIFICATION

I, Sunil Bhonsle, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Titan Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. I am responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f) for the registrant and have:

- (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under my supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to me by others within those entities, particularly during the period in which this report is being prepared;
- (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under my supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
- (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
- (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. I have disclosed, based on my most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

- (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
- (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 15, 2010

/s/ Sunil Bhonsle

Name: Sunil Bhonsle

Title: President

(Principal Executive Officer and Principal  
Financial Officer)

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO SECTION 906  
OF THE SARBANES-OXLEY ACT OF 2002**

In connection with this quarterly report on Form 10-Q of Titan Pharmaceuticals, Inc. (the "Company") for the period ended September 30, 2010, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned officer of the Company hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of his knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 15, 2010

/s/ Sunil Bhonsle

Name: Sunil Bhonsle

Title: President

(Principal Executive Officer and Principal  
Financial Officer)