As filed with the Securities and Exchange Commission on August 30, 2018

Registration No. 333-226841

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

AMENDMENT NO. 1
TO
FORM S-1
REGISTRATION STATEMENT
UNDER THE SECURITIES ACT OF 1933

Titan Pharmaceuticals, Inc.

(Exact name of Registrant as specified in its charter)

Delaware	**2836**	**94-3171940**
(State or other jurisdiction of incorporation or organization)	*(Primary Standard Industrial Classification Code Number)*	*(I.R.S. Employer Identification Number)*

400 Oyster Point Blvd., Suite 505
South San Francisco, California 94080
(650) 244-4990

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Sunil Bhonsle, Chief Executive Officer
Titan Pharmaceuticals, Inc.
400 Oyster Point Blvd., Suite 505
South San Francisco, California 94080
(650) 244-4990

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act of 1933, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act of 1933, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act of 1933, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act of 1934.

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price[1]	Amount of Registration Fee[2]
Class A Units consisting of:		
(i) Common Stock, par value $0.001 per share [2]	$ 2,587,500	$ 322.14
(ii) Warrants to purchase Common Stock [3]		
Class B Units consisting of:		
(i) Series A Convertible Preferred Stock, par value $0.001 per share	$14,662,500	$ 1,825.48
(ii) Warrants to purchase Common Stock [3]		
(iii) Common Stock issuable upon conversion of the Series A Convertible Preferred Stock[2]		
Common Stock issuable upon the exercise of the Warrants to purchase Common Stock [2]	$10,781,250	$ 1,342.27
Underwriter's Warrants to Purchase Common Stock [2]	$ 660,000	$ 82.17
Common Stock Underlying Underwriter's Warrants [3][4]		
Total	$28,691,250	$ 3,572.06[5]

(1) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(o) of the Securities Act of 1933, as amended. Includes shares and warrants to be sold upon exercise of the underwriters' option to purchase additional shares and warrants. See "Underwriting."

(2) Pursuant to Rule 416, the securities being registered hereunder include such indeterminate number of additional securities as may be issued after the date hereof as a result of stock splits, stock dividends or similar transactions.

(3) No fee pursuant to Rule 457(g) under the Securities Act of 1933, as amended.

(4) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(g) under the Securities Act. The underwriter's warrants are exercisable at a per share exercise price equal to 110% of the public offering price per share of common stock. The proposed maximum aggregate offering price of the underwriter's warrants is $660,000, which is equal to 110% of $600,000 (4% of $15,000,000).

(5) $2,229.80 was previously paid.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to Section 8(a), may determine.

The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities, nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS **SUBJECT TO COMPLETION** **DATED AUGUST 30, 2018**

3,000,000 Class A Units Consisting of Common Stock and Warrants and 12,750 Class B Units Consisting of Series A Convertible Preferred Stock and Warrants

We are offering 3,000,000 Class A Units consisting of one share of our common stock and one warrant to purchase 0.5 of a share of our common stock, at an exercise price equal to per whole share of common stock, which warrants will be exercisable upon issuance and will expire five years from date of issuance. The shares of common stock and warrants that are part of a Class A Unit are immediately separable and will be issued separately in this offering.

We are also offering to those purchasers, if any, whose purchase of Class A Units in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock immediately following the consummation of this offering, the opportunity, in lieu of purchasing Class A Units, to purchase Class B Units. Each Class B Unit will consist of one share of our newly designated Series A Convertible Preferred Stock, or the Series A Preferred, with a stated value of $1,000 and be convertible into shares of our common stock at the public offering price of the Class A Units, together with the equivalent number of warrants as would have been issued to such purchaser if they had purchased Class A Units based on the public offering price. The shares of Series A Preferred do not generally have any voting rights unless and until converted into shares of common stock. The shares of Series A Preferred and warrants that are part of a Class B Unit are immediately separable and will be issued separately in this offering.

The number of shares of our common stock outstanding after this offering will fluctuate depending on how many Class B Units are sold in this offering and whether and to what extent holders of Series A Preferred shares convert their shares to common stock.

Our common stock is listed on The Nasdaq Capital Market under the symbol "TTNP". On August 29, 2018, the last reported sale price of our common stock on The Nasdaq Capital Market was $0.75 per share. The public offering price per Class A Unit will be determined between us and the underwriter based on the closing price of our common stock on the pricing date and market conditions at the time of pricing, and may be at a discount to the current market price. The public offering price of the Class B Units will be $1,000 per unit.

Assuming an offering price of $0.75 per Class A unit, the Series A Preferred included in the Class B Units will be convertible into an aggregate total of 17,000,000 shares of Common Stock and the warrants included in the Class B Units will be exercisable for an aggregate total of 8,500,000 shares of Common Stock.

There is no established trading market for the warrants or the Series A Preferred, and we do not expect an active trading market to develop. We do not intend to list the warrants or the Series A Preferred on any securities exchange or other trading market. Without an active trading market, the liquidity of the warrants and the Series A Preferred will be limited.

Our business and an investment in our securities involves a high degree of risk. See "Risk Factors" beginning on page 9 of this prospectus for a discussion of information that you should consider before investing in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Class A Unit	Per Class B Unit	Total
Public offering	$	$	$
Underwriting discounts and commissions[1]	$	$	$
Proceeds to us, before expenses	$	$	$

(1) The underwriters will receive compensation in addition to the underwriting discount and commissions. See "Underwriting" beginning on page 48 of this prospectus for a description of compensation payable to the underwriters.

We have granted a 45-day option to the underwriters to purchase additional shares of common stock and/or additional warrants to purchase shares of common stock, in amounts up to 15% of the common stock, warrants and/or common stock issuable upon conversion of the Series A Preferred included in the Units sold in the offering.

The underwriters expect to deliver the securities against payment therefor on or about , 2018.

Sole Book-Running Manager

A.G.P.

Co-Manager

CIM Securities, LLC

, 2018

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You should rely only on the information contained or incorporated by reference in this prospectus. Neither we nor the underwriters have authorized anyone to provide you with information different from, or in addition to, that contained or incorporated by reference in this prospectus or any free writing prospectus prepared by or on behalf of us or to which we may have referred you in connection with this offering. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. Neither we nor any of the underwriters is making an offer to sell or seeking offers to buy these securities in any jurisdiction where, or to any person to whom, the offer or sale is not permitted. The information contained or incorporated by reference in this prospectus is accurate only as of the date on the front cover of this prospectus, regardless of the time of delivery of this prospectus or of any sale of shares of our common stock, and the information in any free writing prospectus that we may provide you in connection with this offering is accurate only as of the date of that free writing prospectus. Our business, financial condition, results of operations and future growth prospects may have changed since those dates

This prospectus includes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties. The industry publications and industry data contained in this prospectus have been obtained from sources believed to be reliable.

For investors outside the United States: Neither we nor any of the underwriters have taken any action that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities covered hereby and the distribution of this prospectus outside of the United States.

PROSPECTUS SUMMARY

This summary provides an overview of selected information contained elsewhere or incorporated by reference in this prospectus and does not contain all of the information you should consider before investing in our securities. You should carefully read this prospectus and the registration statement of which this prospectus is a part in their entirety before investing in our securities, including the information discussed under "Risk Factors" and our financial statements and notes thereto that are incorporated by reference in this prospectus. Unless otherwise indicated herein, the terms "Titan," "we," "our," "us," or "the Company" refer to Titan Pharmaceuticals, Inc.

Company Overview

We are a pharmaceutical company developing proprietary therapeutics utilizing our proprietary long-term drug delivery platform for the treatment of select chronic diseases for which steady state delivery of a drug provides an efficacy and/or safety benefit. We are currently transitioning to a commercial stage enterprise having recently re-acquired Probuphine®, a product approved in the U.S. for management of opiate dependence.

Probuphine, our first product candidate based on our proprietary ProNeura™ platform, is a subdermal implant that provides continuous delivery of buprenorphine for six months. Probuphine was approved by the United States Food and Drug Administration, or FDA, in May 2016 for the maintenance treatment of opioid dependence in patients who are stable on low to moderate doses of daily sublingual buprenorphine treatment. We licensed development and commercialization rights of Probuphine for the U.S. and Canadian markets to Braeburn Pharmaceuticals, Inc., or Braeburn, in December 2012. Braeburn subsequently sublicensed the Canadian rights to Knight Therapeutics Inc., or Knight, in February 2016. In April 2018, Knight announced that it had received regulatory approval from Health Canada to commercialize the product for the maintenance treatment of stable patients with opioid use disorder.

In early 2018, Braeburn substantially reduced its field sales force and medical liaison personnel following its receipt of a complete response letter from the FDA for its weekly and monthly depot injection products. Anticipating a negative impact on Probuphine sales in the U.S., we began discussing with Braeburn terms for the return of the Probuphine U.S. commercialization rights to Titan. On May 25, 2018, we entered into an agreement with Braeburn under which we received a $1 million payment from Braeburn and Braeburn's undertaking to provided transition services through 2018 to assist with commercialization activities and help maintain continuity in product supply for patients and their physicians.

Since reacquiring the rights, we have begun implementation of a strategy to relaunch Probuphine to targeted market segments that we believe are best suited to benefit from this product. We intend to use a substantial portion of the proceeds of this offering to build our infrastructure, including a small sales and marketing team, which will enable us to successfully transition to a commercial enterprise and position Probuphine as a specialty product.

On March 21, 2018, we entered into an agreement, or the Purchase Agreement, with L. Molteni & C. Dei Frattelli Alitti Società Di Esercizio S.P.A., or Molteni, pursuant to which Molteni acquired the European intellectual property related to Probuphine and exclusive right to commercialize the Titan supplied product in Europe, as well as certain countries of the Commonwealth of Independent States, the Middle East and North Africa, or the Molteni Territory, in exchange for upfront, milestone and earn-out payments for up to 15 years on net sales of Probuphine in the Molteni Territory. We are working with Molteni in connection with the Marketing Authorization Application, or MAA, currently under review by the European Medicines Agency, or EMA, with the goal of receiving approval to commercialize Probuphine in the European Union, or EU, in the first half of 2019.

We believe that our ProNeura long term drug delivery platform has the potential to be used in the treatment of other chronic conditions where maintaining stable, around the clock blood levels of a medication may benefit the patient and improve medical outcomes. Our goal is to expand our product pipeline using the ProNeura implant platform, and, depending on available funds, we have been opportunistically evaluating other drugs and disease settings for use with the ProNeura platform in

potential treatment applications such as Parkinson's disease, where conventional treatment is limited by variability in blood drug levels and poor patient compliance. The pursuit of any of these programs in the short-term will depend on our ability to obtain the necessary funding through either government grants or third party collaborations.

Our Market Opportunity

Opioid Use Disorder, or OUD, is a severe, chronic, relapsing brain disease characterized by compulsive drug seeking and use, despite the harmful consequences. Sufferers experience cravings of opioids, accompanied by lack of impulse control. OUD is a progressive disease that is characterized by cycles of relapse and remission and often results in disability or death if left untreated. It is estimated that during 2016, 2.3 million people were diagnosed with OUD and close to 12 million people used opioids. According to government publications, the U.S. societal costs of opioid abuse total $78.5 billion annually and over 115 people die each day as a direct result of their addiction. The U.S. government considers OUD an epidemic and has made available substantial funds through federal and state agencies to control the spread of the epidemic and support evidence-based treatments.

Current treatment approaches to OUD include abstinence-based 12-step programs, a rarely successful therapeutic approach, drug counseling and medication assisted therapies, or MAT. Cravings may persist for years even in the face of abstinence from illicit opiates, leading to a high incidence of relapse in patients not maintained on longer term MAT. The current MAT gold standard is daily treatment with sublingual buprenorphine, a medication that controls the withdrawal symptoms and cravings without inducing opioid euphoria in patients. A 30-day depot formulation was recently approved by the FDA and similar depot buprenorphine products are under FDA review in both weekly and monthly formulations. Unlike methadone, sublingual buprenorphine can be prescribed as an outpatient treatment, making it a convenient option for patients, and U.S. sales of formulations of buprenorphine are approximately $2.0 billion annually. There are challenges, however, associated with daily dosed formulations, including:

- voluntary compliance;
- potential reinforcement of drug-taking behavior;
- variable levels of medication in the blood; and
- diversion, abuse and accidental pediatric overdose.

Probuphine is a safe, effective long-term, subdermal treatment for selected patients that addresses these challenges by:

- releasing buprenorphine continuously for six months;
- providing a stable level of medication in the blood, avoiding peaks and troughs of oral dosing; and
- minimizing or eliminating the potential for diversion or accidental overdose.

Our Commercial Strategy for Probuphine Relaunch

We are currently transitioning all the Probuphine commercialization activities from Braeburn to Titan which include the supply chain and logistics functions, as well as the Medical Affairs and Risk Evaluation Mitigation Strategy, or REMS, training and reporting activities. We expect to complete most of the transition during the third quarter of 2018, and expect to commence the relaunch of Probuphine under the Titan brand in 2018. We are pursuing a targeted market strategy that focuses on establishing a beachhead in select market segments where Probuphine can provide meaningful benefit for the patient allowing for sustained market penetration and sales growth. We plan to establish a small commercial team of no more than 10 specialists with experience in product marketing and supply chain logistics, medical liaison and training functions, third party payer medical access and field sales. This team will focus initially on four key market segments, specifically:

- ***High Probuphine-prescribing physicians with long-term recovery oriented treatment programs.*** There are a substantial number of certified physicians who are currently treating OUD with Probuphine, all of whom are identified in our data base. Our plan is to initially focus

on the top tier of prescribers to facilitate the growth of their businesses through increased utilization of Probuphine. Utilizing some of the top tier providers, we will establish centers of excellence that will provide sites for referrals from other health care providers. In addition, our medical access specialists will provide resources to help lessen the complexity of the supply chain and reimbursement process. In the longer term, some top tier Probuphine providers will also engage in investigator sponsored research which can generate new and clinically meaningful data, some of which will help us assess the potential for label expansion.

- ***Residential treatment facilities.*** Historically, these facilities have mostly relied on 12-step programs with the goal of complete and sustained abstinence while avoiding any MAT. However, the success of such programs has not withstood scrutiny, as it has been increasingly recognized that a very high percentage of patients with opiate addiction ultimately relapse. Consequently, the use of MAT as part of the management of OUD has been increasing, and is expected to rise substantially in the near term. Our plan is to establish alliances with a few large programs.
- ***Academic institutions with addiction treatment and training programs.*** We plan to form alliances with institutions that already have the necessary trained personnel and equipment for doing small procedures, and facilitate the introduction and/or increased use of Probuphine for appropriate patients. This will also serve to introduce Probuphine to the next generation of addiction specialists. In the longer term, we expect that key opinion leaders, or KOLs, at some of these sites will initiate investigator sponsored studies which can generate clinically meaningful data while helping us assess the potential for label expansion.
- ***Criminal justice system.*** In recent years there has been increasing recognition that the rate of recidivism among inmates with opiate addiction is very high. In addition, the incidence of overdose and death is high for recently released inmates who have "detoxed" while incarcerated (often through abrupt withdrawal or "cold turkey"). Early data suggests the use of MAT in this population can decrease recidivism and the incidence of overdose deaths. Our plan is to initially establish pilot projects with a few select criminal justice programs, with the goal of generating meaningful data that potentially supports the use of Probuphine in this setting.

We expect that demonstration of early success in these market segments will serve to increase partnering opportunities, which will then sustain and accelerate future growth of Probuphine.

Risks Related to Our Business

- We may not be successful in transitioning from a research and development company to a commercial enterprise.
- If Probuphine does not achieve broad market acceptance by physicians, patients or others in the medical community or coverage by third-party payors, our business will be suffer.
- We must comply with extensive government regulations.
- The Probuphine REMS program has adversely impacted sales and marketing efforts to date and may continue to do so, which could materially adversely impact our business prospects.
- The FDA-approved product labeling for Probuphine allows prescribing for a limited patient population.
- Probuphine is a controlled substance subject to DEA regulations and failure to comply with these regulations, or the cost of compliance with these regulations, may adversely affect our business.
- We may be subject to enforcement action if we engage in improper marketing or promotion of Probuphine.
- We rely on third parties to provide services in connection with the manufacture and distribution of Probuphine, and these third parties may not perform satisfactorily.
- We are solely reliant on the efforts of third parties to commercialize Probuphine outside of the United States.

- Our current ProNeura programs are at a very early stage and we may not be able to successfully develop these products or any other product based on our ProNeura drug delivery technology.
- Clinical trials required for new product candidates are expensive and time-consuming, and their outcome is uncertain.
- We face risks associated with third parties conducting preclinical studies and clinical trials of our products.
- We face risks associated with product liability lawsuits that could be brought against us.
- We may be unable to protect our patents and proprietary rights.
- We face intense competition.
- Health care reform measures and changes in policies, funding, staffing and leadership at the FDA and other agencies could hinder or prevent the commercial success of our products.
- We may not be able to implement our business plan if we are unable to attract and retain key personnel and consultants.

Corporate Information

We were incorporated under the laws of the State of Delaware on February 7, 1992. Our principal executive offices are located 400 Oyster Point Boulevard, Suite 505, South San Francisco, CA 94080. Our telephone number is (650) 244-4990. Our website address is www.titanpharm.com. We make our periodic and current reports that are filed with the SEC available, free of charge, on our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained in, and that can be accessed through, our website is not incorporated into and is not a part of this prospectus.

This prospectus may contain references to our trademark and to trademarks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus, including logos, artwork and other visual displays, may appear without the ® or TM symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other companies' trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other company.

THE OFFERING

Class A Units offered	3,000,000 Class A Units with each Class A Unit consisting of one share of our common stock and a warrant to purchase 0.5 of a share of our common stock at an exercise price equal to per whole share of common stock. The Class A Units will not be certificated and the share of common stock and warrant that are part of such unit will be immediately separable and will be issued separately in this offering.
Class B Units offered	12,750 Class B Units are also being offered to those purchasers, if any, whose purchase of Class A Units in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock immediately following the consummation of this offering. Each Class B Unit will consist of one share of our Series A Preferred, with a stated value of $1,000 and convertible into shares of our common stock, at the public offering price of the Class A Units, together with the equivalent number of warrants as would have been issued to such purchaser if they had purchased Class A units based on the public offering price. The shares of Series A Preferred generally do not have any voting rights but are convertible into shares of common stock. The Class B Units will not be certificated and the shares of Series A Preferred and warrants that are part of such unit are immediately separable and will be issued separately in this offering.
Warrants	Each warrant included in the Units will have an exercise price equal to per whole share of common stock, will be exercisable upon issuance, and will expire five years from the date of issuance.
Underwriters' option to purchase additional securities	We have granted a 45-day option to the underwriters to purchase additional shares of common stock and/or additional warrants to purchase shares of common stock, in amounts up to 15% of the common stock, warrants and/or common stock issuable upon conversion of the Series A Preferred included in the Units sold in the offering.
Common stock to be outstanding immediately after this offering	24,203,744 shares. If the underwriters' option to purchase additional securities is exercised in full, the total number of shares of our common stock outstanding immediately following the option exercise will be 24,653,744 shares. Excludes shares of common stock that may be issued upon exercise of the warrants and conversion of the Series A Preferred to be issued in this offering. Excludes shares of common stock that may be issued upon exercise of the warrants and conversion of the Series A Preferred to be issued in this offering and exercise of the representative's warrants.

Series A Convertible Preferred Stock	The Series A Preferred will be convertible into shares of our common stock (subject to adjustment as provided in the related certificate of designation of preferences, rights and limitations) at any time at the option of the holder, at the public offering price of the Class A Units. See "Description of Securities — Preferred Stock — Series A Convertible Preferred Stock" for a discussion of the terms of the Series A Preferred.
Use of proceeds	We estimate that the net proceeds in this offering will be approximately $13.6 million, or approximately $15.7 million if the underwriters exercise their option to purchase additional securities in full, at an assumed public offering price of $0.75 per Class A Unit and $1,000 per Class B Unit, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We anticipate that we will use the net proceeds from this offering for our operations and for other general corporate purposes, including, but not limited to, building our infrastructure, including a small sales and marketing team, to commercialize Probuphine, conduct of the Phase IV trials required by the FDA, our internal research and development programs and general working capital. See "Use of Proceeds" on page 29.
Risk factors	See "Risk Factors" beginning on page 9 and the other information included in this prospectus for a discussion of factors you should carefully consider before investing in our securities.
Nasdaq Capital Market symbol	Our common stock currently trades on The Nasdaq Capital Market under the symbol "TTNP" There is no established public trading market for the warrants or Series A Preferred, and we do not expect an active trading market to develop. We do not intend to list the warrants or the Series A Preferred on any securities exchange or other trading market. Without an active trading market, the liquidity of the warrants and the Series A Preferred will be limited.

The number of shares of our common stock that will be outstanding immediately after this offering is based on 21,203,744 shares of common stock outstanding as of August 29, 2018, and excludes as of such date:

- 3,498,650 shares of common stock issuable upon exercise of outstanding options at a weighted average exercise price of $3.39 per share, of which 2,839,235 shares are vested as of such date;
- 1,119,750 shares of common stock reserved for future issuance under the Titan Pharmaceuticals, Inc. 2015 Omnibus Equity Incentive Plan, as amended, or the 2015 Plan;
- 1,708,181 shares of common stock issuable upon exercise of warrants outstanding at a weighted average exercise price of $2.37;
- 2,000,000 shares of common stock issuable upon conversion of $2.4 million principal amount of outstanding indebtedness;

- shares of our common stock issuable upon exercise of the warrants to be issued in this offering; and
- shares of our common stock issuable upon conversion of the Series A Preferred to be issued in this offering.

The number of shares of our common stock outstanding after this offering will fluctuate depending on how many Class B Units are sold in this offering and whether and to what extent holders of Series A Preferred shares convert their shares to common stock.

To the extent we sell any Class B Units in this offering, the same aggregate number of common stock equivalents resulting from this offering would be convertible under the Series A Preferred issued as part of the Class B Units.

Except as otherwise indicated herein, all information in this prospectus, including the number of shares that will be outstanding after this offering, assumes no exercise by the underwriters of their option to purchase additional securities and excludes shares of our common stock issuable upon exercise of the representative's warrants (4% of the shares of common stock sold in this offering, including shares issuable upon conversion of the Series B Preferred but excluding any securities sold upon exercise of the underwriter's option to purchase additional securities or shares issuable upon exercise of the warrants).

SUMMARY CONSOLIDATED FINANCIAL DATA

(in thousands, except per share data)

The following table summarizes our selected financial data for the periods and as of the dates indicated. Our selected statements of operations data for the years ended December 31, 2017 and 2016, respectively, and our selected balance sheet data as of December 31, 2017 and 2016, have been derived from our audited financial statements, which are incorporated by reference in this prospectus. Our selected statements of operations data for each of the six month periods ended June 30, 2018 and 2017, and our selected balance sheet data as of June 30, 2018, have been derived from our unaudited financial statements, which are incorporated by reference in this prospectus. The interim unaudited financial statements have been prepared on the same basis as the annual audited financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary for a fair presentation of the information for the periods presented. Our financial statements are prepared and presented in accordance with generally accepted accounting principles in the United States. Our historical results are not necessarily indicative of the results to be expected for any future periods. Our selected financial data should be read together with the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and with our financial statements and their related notes, which are incorporated by reference in this prospectus.

	Six Months Ended June 30,		Years Ended December 31,	
	2018	2017	2017	2016
	(Unaudited)			
Statement of Operations Data:				
Total revenue	$ 3,732	$ 117	$ 215	$15,065
Operating expenses:				
Cost of goods sold	70	—	—	—
Research and development	3,713	4,627	9,648	6,126
General and administrative	2,995	2,548	5,069	4,596
Other income (expense), net	(428)	602	195	792
Net income (loss) applicable to common stockholders	$ (3,474)	$ (6,456)	$(14,307)	$ 5,135
Basic net income (loss) per common share	$ (0.16)	$ (0.30)	$ (0.67)	$ 0.25
Diluted net income (loss) per common share	$ (0.16)	$ (0.33)	$ (0.70)	$ 0.20
Shares used in computing:				
Basic net income (loss) per common share	21,204	21,199	21,203	20,744
Diluted net income (loss) per common share	21,204	21,201	21,228	21,459

	As of June 30, 2018 (Unaudited)
Balance Sheet Data:	
Cash and cash equivalents	$ 1,614
Total assets	$ 4,617
Total liabilities	$ 5,930
Total stockholders' equity (deficit)	$ (1,313)

RISK FACTORS

Any investment in our securities involves a high degree of risk. Investors should carefully consider the risks described below and all of the information contained or incorporated by reference in this prospectus before deciding whether to purchase our common stock. Our business, financial condition or results of operations could be materially adversely affected by these risks if any of them actually occur. This prospectus also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks we face as described below and elsewhere in this prospectus.

Risks Related to Our Business

We may not be successful in transitioning from a research and development company to a commercial enterprise.

Since our inception, we have been engaged in product research and development and have never directly commercialized any product. Since we regained the U.S. commercial rights to Probuphine in May 2018, we have been largely dependent on Braeburn's provision of support services, as well as those of advisors and consultants, as we transition to a commercial enterprise. We do not currently employ a sales force or have any internal sales and marketing capabilities. Without hiring or contracting for an experienced and active sales force, we will not be in a position to relaunch Probuphine and sales, if any, will continue to be limited. We will face intense competition for sales and marketing personnel with the necessary experience in addiction, reimbursement, specialty pharmacies and our targeted markets and there can be no assurance that we will be successful in our efforts to transition to a commercial stage company.

If Probuphine does not achieve broad market acceptance by physicians, patients or others in the medical community or coverage by third-party payors, our business will suffer.

Although Braeburn commenced a full commercial launch of Probuphine in the first quarter of 2017, minimal progress was made and for the year ended December 31, 2017 we derived royalty revenues of only $215,000 from sales of Probuphine. The commercial success of Probuphine and our product relaunch will depend upon its acceptance by physicians, patients, healthcare payors and the medical community. Coverage and reimbursement of Probuphine by third-party payors is also necessary for commercial success. Since its initial commercial launch by Braeburn, Probuphine's adoption by physicians has been hindered both by the Risk Evaluation and Mitigation Strategy, or REMS, requirements mandated by the product label, which are more expansive than those required for other buprenorphine products, as well as the current payment and reimbursement model, which differs from some of the existing treatment options for opioid addiction. For example, the current standard of care for outpatient treatment of opioid addiction is oral daily buprenorphine, which typically requires frequent patient visits and a per visit fee, which the patient may pay directly to the healthcare provider in cash. Reimbursement for an implantable drug product that requires administration by a healthcare provider requires drug codes as well as a separate procedure code for the insertion and removal procedures and less frequent office visits. Physicians may prefer more frequent patient visits and the accompanying reimbursement and payment model, which oftentimes includes cash payments. The commercial success of Probuphine depends on several factors, including:

- our ability to train and certify healthcare providers to insert and remove implants of Probuphine in accordance with the REMS;
- the perceived and actual advantages of our Probuphine over current and emerging treatment options;
- the willingness of healthcare providers to prescribe, and the target patient population to try novel products;
- the competitiveness of our pricing;
- the willingness of healthcare providers to accept alternative reimbursement models, such as the "buy-and-bill" system, where prescribers are required to buy Probuphine inventory themselves and

then bill patients or payors following the procedure, or the specialty pharmacy distribution model, where a specialty pharmacy carries inventory and ships it to healthcare providers as requested and prescribed, and directly handles the subsequent billing and payment process with payors;

- our ability to provide adequate support to physicians and other healthcare providers to lessen the burden of current reimbursement models;
- our ability to establish and maintain adequate levels of coverage for Probuphine from commercial health plans and government health programs, which we refer to collectively as third-party payors, particularly in light of the availability of other branded and generic competitive products;
- the willingness for patients to pay out-of-pocket in the absence of third-party coverage and the success of patient assistance programs;
- our ability to promote products through marketing and sales activities and any other arrangements; and
- our ability to successfully educate prescribers and patients on the applicable product's efficacy and safety.

In light of the difficulties encountered to date, we cannot predict either the timing or the degree to which Probuphine will be accepted by the medical community. If we are unable to generate ample royalty revenue from Probuphine, we will be unable to fund our research and development programs without additional financing, which may not be available on acceptable terms, and our business will be materially harmed.

We must comply with extensive government regulations.

The research, development, manufacture labeling, storage, record-keeping, advertising, promotion, import, export, marketing and distribution of pharmaceutical products are subject to an extensive regulatory approval process by the FDA in the U.S. and comparable health authorities in foreign markets. The process of obtaining required regulatory approvals for drugs is lengthy, expensive and uncertain. Approval policies or regulations may change and the FDA and foreign authorities have substantial discretion in the pharmaceutical approval process, including the ability to delay, limit or deny approval of a product candidate for many reasons. Despite the time and expense invested in clinical development of product candidates, regulatory approval is never guaranteed. Regulatory approval may entail limitations on the indicated usage of a drug, which may reduce the drug's market potential. Even if regulatory clearance is obtained, post-market evaluation of the products, if required, could result in restrictions on a product's marketing or withdrawal of the product from the market, as well as possible civil and criminal sanctions. Of the large number of drugs in development, only a small percentage successfully complete the regulatory approval process and are commercialized.

The New Drug Application, or NDA, for Probuphine mandated the post-approval completion of several Phase IV clinical trials. Prior to the reversion of the commercialization rights to us, Braeburn had been in negotiations with the FDA with respect to the various trial protocols and had not commenced the required clinical trials. Upon transfer of the NDA back to us, we began communicating with the FDA regarding the Phase IV requirements. There can be no assurance that the FDA will provide us with the time we need to initiate and complete the necessary clinical trials, or that we will have the necessary funds to do so, in which event we may be subject to possible sanctions, including monetary penalties or suspension of Probuphine commercial activities. Furthermore, unexpected negative findings from a Phase IV trial could negatively impact the product label and/or acceptance by patients, healthcare providers and insurers.

The Probuphine REMS program has negatively impacted initial uptake in sales and may continue to do so, which could materially adversely impact our business prospects.

There is currently a REMS program in place for Probuphine as required by the FDA. The REMS program was implemented by Braeburn in May 2016 and is designed to mitigate the risk of complications of migration, protrusion, expulsion and nerve damage associated with the insertion and removal of Probuphine and the risks of accidental overdose, misuse and abuse. The REMS program requires training and certification of healthcare providers who prescribe and implant Probuphine and provide patient

counseling. Probuphine distribution is restricted to healthcare providers who have completed training and received certification under the REMS program. We believe the REMS program has been an obstacle to acceptance of Probuphine to date by the medical community. Healthcare providers may be unwilling to undergo training and certification in order to be able to prescribe or implant Probuphine due to time constraints or concerns with the product. If we are unable to adequately address this issue, our ability (or the ability of potential future commercial partners) to generate revenue from sales of Probuphine could be materially compromised, which would have a material adverse effect on our business, results of operations, financial condition and prospects. In addition, if a patient suffers an injury during the insertion and removal of Probuphine, we may become liable to patients, clinicians or others or result in our non-compliance with the REMS program. Non-compliance with the REMS program may bring serious consequences to us, including warning letters from the FDA, fines, criminal charges and other prohibitions and exclusions as well as reputational damage.

The FDA-approved product labeling for Probuphine allows prescribing for a limited patient population.

Probuphine was approved with an indicated use limited to the long-term maintenance treatment of opioid dependence in clinically stable patients on 8 mg or less a day of oral buprenorphine. The approved labeling also contains other limitations on use and warnings and contraindications for risks. If potential purchasers or those influencing purchasing decisions, such as physicians and pharmacists or third party payers, react negatively to Probuphine because of their perception of the limitations or safety risks in the approved product labeling, it may result in lower product acceptance and lower product revenues.

In addition, our promotion of Probuphine must reflect only the specific approved indication as well as other limitations on use, and disclose the safety risks associated with the use of Probuphine as set out in the approved product labeling. We must submit all promotional materials to the FDA at the time of their first use. If the FDA raises concerns regarding our promotional materials or messages, we may be required to modify or discontinue using them and provide corrective information to healthcare practitioners, and we may face other adverse enforcement action.

Probuphine is a controlled substance subject to Drug Enforcement Agency, or DEA, regulations and failure to comply with these regulations, or the cost of compliance with these regulations, may adversely affect our business.

Probuphine contains buprenorphine, a regulated Schedule III "controlled substance" under the Controlled Substances Act, which establishes, among other things, certain registration, production quotas, security, recordkeeping, reporting, import, export and other requirements administered by the DEA. The DEA regulates controlled substances as Schedule I, II, III, IV or V substances. Schedule I substances by definition have no established medicinal use and may not be marketed or sold in the United States. A pharmaceutical product may be listed as Schedule II, III, IV or V, with Schedule II substances considered to present the highest risk of abuse and Schedule V substances the lowest relative risk of abuse among such substances. Our failure to comply with DEA requirements could result in the loss of our ability to supply Probuphine, significant restrictions on Probuphine, civil penalties or criminal prosecution.

The DEA, and some states, also conduct periodic inspections of registered establishments that handle controlled substances. Facilities that conduct research, manufacture, store, distribute, import or export controlled substances must be registered to perform these activities and have the security, control and inventory mechanisms required by the DEA to prevent drug loss and diversion. Failure to maintain compliance, particularly non-compliance resulting in loss or diversion, can result in regulatory action that could have a material adverse effect on our business, results of operations, financial condition and prospects. The DEA may seek civil penalties, refuse to renew necessary registrations or initiate proceedings to revoke those registrations. In certain circumstances, violations could lead to criminal proceedings.

Individual states also have controlled substances laws. Though state controlled substances laws often mirror federal law, because the states are separate jurisdictions, they may separately schedule drugs, as well. While some states automatically schedule a drug when the DEA does so, in other states there has to be rulemaking or a legislative action. State scheduling may delay commercial sale of any controlled substance drug product for which we obtain federal regulatory approval and adverse scheduling could have a material adverse effect on the commercial attractiveness of such product. We or our partners must also obtain

separate state registrations in order to be able to obtain, handle, and distribute controlled substances for clinical trials or commercial sale, and failure to meet applicable regulatory requirements could lead to enforcement and sanctions from the states in addition to those from the DEA or otherwise arising under federal law.

We may be subject to enforcement action if we engage in improper marketing or promotion of Probuphine.

Our promotional materials and training methods must comply with the Federal Food, Drug and Cosmetic Act, or the FDCA, and FDA regulations and other applicable laws and regulations, including the prohibition of the promotion of unapproved, or "off-label", use. Companies may not promote drugs for off-label use, which include uses that are not described in the product's labeling and that differ from those approved by the FDA. Physicians may prescribe drug products for off-label uses and such off-label uses are common across some medical specialties. Although the FDA and other regulatory agencies do not regulate a physician's choice of treatments, the FDCA and FDA regulations restrict communications on the subject of off-label uses of drug products by pharmaceutical companies. The Office of Inspector General of the Department of Health and Human Services, or OIG, the FDA, and the Department of Justice, or DOJ, all actively enforce laws and regulations prohibiting promotion of off-label use and the promotion of products for which marketing approval has not been obtained.

Other federal, state and foreign regulatory agencies, including the U.S. Federal Trade Commission, have issued guidelines and regulations that govern how we promote our products, including how we use endorsements and testimonials.

If we are found to be out of compliance with the requirements and restrictions described above, and we are investigated for or found to have improperly promoted off-label use, we may be subject to significant liability, including civil and administrative remedies as well as criminal sanctions, and the off-label use of our products may increase the risk of product liability claims. In addition, management's attention could be diverted from our business operations and our reputation could be damaged.

In addition to FDA and related regulatory requirements, we are subject to health care "fraud and abuse" laws, such as the federal False Claims Act, the anti-kickback provisions of the federal Social Security Act, and other state and federal laws and regulations. Federal and state anti-kickback laws prohibit, among other things, payments or other remuneration to induce or reward someone to purchase, prescribe, endorse, or recommend a product that is reimbursed under federal or state healthcare programs. If we provide payments or other remuneration to a healthcare professional to induce the prescribing of our products, we could face liability under state and federal anti-kickback laws.

Federal false claims laws prohibit any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to get a false claim paid. Pharmaceutical companies have been prosecuted under these laws for a variety of alleged promotional and marketing activities, such as allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product or submitting inflated best price information to the Medicaid Rebate program. The majority of states also have statutes or regulations similar to the federal anti-kickback law and false claims laws, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payer. Sanctions under these federal and state laws may include civil monetary penalties, exclusion of a manufacturer's products from reimbursement under government programs, criminal fines, and imprisonment. Even if it is determined that we have not violated these laws, government investigations into these issues typically require the expenditure of significant resources and generate negative publicity, which would harm our business, prospects, operating results, and financial condition. Because of the breadth of these laws and the narrowness of the safe harbors, it is possible that some of our business activities could be challenged under one or more of such laws.

Additionally, requirements under the federal Open Payments program, created under Section 6002 of the Affordable Care Act and its implementing regulations, require that manufacturers of drugs for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) report annually to HHS information related to "payments or other transfers of value" provided to U.S. physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and

teaching hospitals. The Open Payments program also requires that manufacturers and applicable group purchasing organizations report annually to HHS ownership and investment interests held in them by physicians (as defined above) and their immediate family members. Manufacturers' reports are filed annually with the Centers for Medicare & Medicaid Services ("CMS") by each March 31, covering the previous calendar year. CMS posts disclosed information on a publicly available website. There are also an increasing number of state laws that restrict or prohibit pharmaceutical manufacturers' interactions with health care providers licensed in the respective states, and that require pharmaceutical manufacturers to, among other things, establish comprehensive compliance programs, adopt marketing codes of conduct, file periodic reports with state authorities regarding sales, marketing, pricing, and other activities, and register/license their sales representatives. A number of state laws require manufacturers to file reports regarding payments and items of value provided to health care providers (similar to the federal Open Payments program). Many of these laws contain ambiguities as to what is required to comply with the laws. These laws may affect our sales, marketing and other promotional activities by imposing administrative and compliance burdens on us. In addition, given the lack of clarity with respect to these laws and their implementation, our reporting actions could be subject to the penalty provisions of the pertinent state and federal authorities.

Because of the breadth of these laws and the narrowness of available statutory and regulatory exemptions, it is possible that some of our business activities could be subject to challenge under one or more of such laws. If our operations are found to be in violation of any of the federal and state laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including criminal and significant civil monetary penalties, damages, fines, imprisonment, exclusion from participation in government healthcare programs, injunctions, recall or seizure of products, total or partial suspension of production, denial or withdrawal of pre-marketing product approvals, private qui tam actions brought by individual whistleblowers in the name of the government or refusal to allow us to enter into supply contracts, including government contracts and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. With respect to any of our products sold in a foreign country, we may be subject to similar foreign laws and regulations, which may include, for instance, applicable privacy laws and post-marketing requirements, including safety surveillance, anti-fraud and abuse laws, and implementation of corporate compliance programs and reporting of payments or transfers of value to healthcare professionals.

We obtain some of our raw materials, components and finished goods from a single source or a limited group of suppliers. The partial or complete loss of one of these suppliers could cause significant production delays, an inability to meet customer demand and a substantial loss in revenue.

We use a number of single-source suppliers for certain of our raw materials, components and finished goods, including:

- the supplier of the active ingredient for Probuphine;
- the supplier of the finished Probuphine implants; and
- the manufacturer of the Probuphine applicator.

We are in the process of qualifying a new ethylene-vinyl acetate, or EVA, manufacturer. In addition, the vendor that used to sterilize the Probuphine implants indicated that it will no longer sterilize Schedule III controlled substances, including Probuphine. While we are in the process of qualifying another sterilization vendor and will also be transitioning to a new sterilization process, we cannot guarantee that such qualification or transition will be successful. Our use of these and other single-source suppliers of raw materials, components and finished goods exposes us to several risks, including disruptions in supply, price increases, late deliveries and an inability to meet customer demand. This could lead to customer dissatisfaction, damage to our reputation or customers switching to competitive products. Any interruption in supply could be particularly damaging to our ability to develop and commercialize Probuphine.

Finding alternative sources for these raw materials, components and finished goods would be difficult and in many cases entail a significant amount of time, disruption and cost. Any disruption in supply from any single-source supplier or manufacturing location could lead to supply delays or interruptions which would damage our business, financial condition, results of operations and prospects.

We rely on third parties to provide services in connection with the manufacture and distribution of Probuphine, and these third parties may not perform satisfactorily.

We do not own or operate, and currently do not plan to own or operate, facilities for production and packaging of Probuphine or our other product candidates. We are dependent on third parties for the timely supply of specified raw materials, equipment, contract manufacturing, formulation or packaging services, product distribution services, customer service activities and product returns processing. For example, we contract with DPT Laboratories, Ltd., or DPT, for the manufacture of Probuphine, which in turn depends on delivery of the active ingredient buprenorphine hydrochloride and milled EVA, which we currently source from Teva Pharmaceuticals, Inc. and Southwest Research Institute, respectively. We are similarly dependent on third parties for the manufacture and sterilization of Probuphine applicators and the assembly and distribution of packaged kits.

Our reliance on third parties for the activities described above will reduce our control over these activities but will not relieve us of our responsibility to ensure compliance with all required regulations. If these third parties do not successfully carry out their contractual duties, meet expected deadlines or manufacture our product in accordance with regulatory requirements, or proprietary specifications, or adhere to product processing best practices, or if there are disagreements between us and these third parties, our business could be materially adversely impacted.

We are solely reliant on the efforts of third parties to commercialize Probuphine outside of the United States.

Our ability to generate revenues from the sale of Probuphine in the European Union and the rest of the Molteni Territory, assuming regulatory approval is ultimately obtained, will be wholly dependent on Molteni's ability to successfully launch and commercialize the product in the Molteni Territory. We are similarly dependent on the efforts of Knight with respect to product launch and commercialization in Canada. We do not have control over the amount and timing of resources that Molteni will dedicate to these efforts. We will be similarly dependent on the development, regulatory and marketing efforts of third parties with respect to revenues, if any, from sales of Probuphine in additional territories.

Our dependence on third party collaborators and license agreements subjects us to a number of risks, including:

- our collaborators may not comply with applicable regulatory guidelines with respect to developing or commercializing our products, which could adversely impact sales or future development of our products;
- we and our collaborators could disagree as to future development plans and our collaborators may delay, fail to commence or stop future clinical trials or other development; and
- there may be disputes between us and our collaborators, including disagreements regarding the license agreements, that may result in the delay of or failure to achieve developmental, regulatory and commercial objectives that would result in milestone or royalty payments and/or the delay or termination of any future development or commercialization of our products.

In addition, collaborators may, to the extent permitted by our agreements, develop products that divert resources from our products, preclude us from entering into collaborations with their competitors or terminate their agreements with us prematurely. Moreover, disagreements could arise with our collaborators or strategic partners over rights to our intellectual property and our rights to share in any of the future revenues from products or technologies resulting from use of our technologies, or our activities in separate fields may conflict with other business plans of our collaborators.

Our ProNeura development programs are at very early stages and will require substantial additional resources that may not be available to us.

To date, we have conducted limited research and development activities based on our ProNeura delivery system beyond Probuphine. We will require substantial additional funds to support our research and development activities, and the anticipated costs of preclinical studies and clinical trials, regulatory approvals and eventual commercialization of ProNeura for Parkinson's disease or any therapeutic based on our ProNeura platform technology. If we are unable to obtain substantial government grants, enter into

third party collaborations or generate sufficient revenues from the sale of Probuphine to fund our ProNeura programs, we will need to seek additional sources of financing, which may not be available on favorable terms, if at all. If we do not succeed in obtaining the requisite funding for our ProNeura programs, we will be unable to initiate clinical trials or obtain approval of any product candidates from the FDA and other regulatory authorities. In addition, we could be forced to discontinue product development, forego sales and marketing efforts and forego attractive business opportunities.

To the extent we raise additional capital through the sale of equity securities, the issuance of those securities could result in dilution to our stockholders. In addition, if we obtain debt financing, a substantial portion of our operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, thus limiting funds available for our business activities. If adequate funds are not available, we may be required to delay, reduce the scope of or eliminate our research and development programs, reduce our commercialization efforts or curtail our operations. In addition, we may be required to obtain funds through arrangements with collaborative partners or others that may require us to relinquish rights to technologies, product candidates or products that we would otherwise seek to develop or commercialize ourselves or license rights to technologies, product candidates or products on terms that are less favorable to us than might otherwise be available.

Our current ProNeura programs are at a very early stage and we may not be able to successfully develop these products or any other product based on our ProNeura drug delivery technology.

Our ability to successfully develop any future product candidates based on our ProNeura drug delivery technology is subject to the risks of failure and delay inherent in the development of new pharmaceutical products, including: delays in product development, clinical testing, or manufacturing; unplanned expenditures in product development, clinical testing, or manufacturing; failure to receive regulatory approvals; emergence of superior or equivalent products; inability to manufacture on our own, or through any others, product candidates on a commercial scale; and failure to achieve market acceptance.

Because of these risks, our research and development efforts may not result in any commercially viable products. If a significant portion of these development efforts are not successfully completed, required regulatory approvals are not obtained or any approved products are not commercially successfully, our business, financial condition, and results of operations may be materially harmed.

Our development and commercialization strategy for ProNeura depends, in part, upon the FDA's prior findings regarding the safety and efficacy of the active drug incorporated into the implant based on data not developed by us, but upon which the FDA may rely in reviewing our NDA submissions.

The current strategy for our ProNeura development programs is based, in part, on the expectation that the products we develop will be eligible for approval through the regulatory pathway under Section 505(b)(2) of the FDCA. Section 505(b)(2) of the FDCA allows an NDA to rely in part on data in the public domain or the FDA's prior conclusions regarding the safety and effectiveness of an approved drug product, which could expedite our development programs by potentially decreasing the amount of clinical data that would need to be generated in order to obtain FDA approval. If the FDA does not allow us to pursue the Section 505(b)(2) regulatory pathway as anticipated, we may need to conduct additional clinical trials, provide additional data and information, and meet additional standards for product approval. If this were to occur, the time and financial resources required to obtain FDA approval for any additional ProNeura products, and complications and risks associated with regulatory approval, would likely substantially increase. Moreover, inability to pursue the Section 505(b)(2) regulatory pathway may result in new competitive products reaching the market more quickly than those we have under development, which would adversely impact our competitive position and prospects. Even if we are able to utilize the Section 505(b)(2) regulatory pathway, there is no guarantee that this regulatory pathway will ultimately lead to accelerated product development or earlier approval. Moreover, notwithstanding the approval of many products by the FDA pursuant to Section 505(b)(2), over the last few years, some pharmaceutical companies and others have objected to the FDA's interpretation of Section 505(b)(2). If the FDA changes its interpretation of Section 505(b)(2), or if the FDA's interpretation is successfully challenged in court, this result could delay or even prevent the FDA from approving any Section 505(b)(2) NDAs that we submit. Such a result could require us to conduct additional testing and costly clinical trials, which could substantially delay or prevent the approval and launch of any new ProNeura products.

Clinical trials required for new product candidates are expensive and time-consuming, and their outcome is uncertain.

In order to obtain FDA approval to market a new drug product based on our ProNeura drug delivery technology, we must demonstrate proof of safety and effectiveness in humans. To meet these requirements, we must conduct "adequate and well controlled" clinical trials. Conducting clinical trials is a lengthy, time-consuming, and expensive process. The length of time may vary substantially according to the type, complexity, novelty, and intended use of the product candidate, and often can be several years or more per trial. Delays associated with products for which we are directly conducting clinical trials may cause us to incur additional operating expenses. The commencement and rate of completion of clinical trials may be delayed by many factors, including, for example:

- inability to manufacture sufficient quantities of qualified materials under cGMP, for use in clinical trials;
- slower than expected rates of patient recruitment;
- failure to recruit a sufficient number of patients; modification of clinical trial protocols;
- changes in regulatory requirements for clinical trials; the lack of effectiveness during clinical trials;
- the emergence of unforeseen safety issues;
- delays, suspension, or termination of the clinical trials due to the institutional review board responsible for overseeing the study at a particular study site; and
- government or regulatory delays or "clinical holds" requiring suspension or termination of the trials.

The results from early clinical trials are not necessarily predictive of results obtained in later clinical trials. Accordingly, even if we obtain positive results from early clinical trials, we may not achieve the same success in future clinical trials. Clinical trials may not demonstrate statistically significant safety and effectiveness to obtain the requisite regulatory approvals for product candidates.

The failure of clinical trials to demonstrate safety and effectiveness for the desired indications could harm the development of that product candidate and other product candidates. This failure could cause us to abandon a product candidate and could delay development of other product candidates. Any delay in, or termination of, our clinical trials would delay the filing of our NDAs with the FDA and, ultimately, our ability to commercialize our product candidates and generate product revenues. Any change in, or termination of, our clinical trials could materially harm our business, financial condition, and results of operations.

We face risks associated with third parties conducting preclinical studies and clinical trials of our products.

We depend on third-party laboratories and medical institutions to conduct preclinical studies and clinical trials for our products and other third-party organizations to perform data collection and analysis, all of which must maintain both good laboratory and good clinical practices. We also depend upon third party manufacturers for the production of any products we may successfully develop to comply with cGMP of the FDA, which are similarly outside our direct control. If third party laboratories and medical institutions conducting studies of our products fail to maintain both good laboratory and clinical practices, the studies could be delayed or have to be repeated.

We face risks associated with product liability lawsuits that could be brought against us.

The testing, manufacturing, marketing and sale of human therapeutic products entail an inherent risk of product liability claims. We currently have a limited amount of product liability insurance, which may not be sufficient to cover claims that may be made against us in the event that the use or misuse of our product candidates causes, or merely appears to have caused, personal injury or death. In the event we are forced to expend significant funds on defending product liability actions, and in the event those funds come from operating capital, we will be required to reduce our business activities, which could lead to significant losses. Adequate insurance coverage may not be available in the future on acceptable terms, if at all. If

available, we may not be able to maintain any such insurance at sufficient levels of coverage and any such insurance may not provide adequate protection against potential liabilities. Whether or not a product liability insurance policy is obtained or maintained in the future, any claims against us, regardless of their merit, could severely harm our financial condition, strain our management and other resources or destroy the prospects for commercialization of the product which is the subject of any such claim.

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

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

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

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

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

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

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

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

We face intense competition.

Competition in the pharmaceutical and biotechnology industries is intense. We face, and will continue to face, competition from numerous companies that currently market, or are developing, products for the treatment of the diseases and disorders we have targeted. Many of these entities have significantly greater research and development capabilities, experience in obtaining regulatory approvals and manufacturing, marketing, financial and managerial resources than we have. We also compete with universities and other

research institutions in the development of products, technologies and processes, as well as the recruitment of highly qualified personnel. Our competitors may succeed in developing technologies or products that are more effective than the ones we have under development or that render our proposed products or technologies noncompetitive or obsolete. In addition, our competitors may achieve product commercialization or patent protection earlier than we will.

The commercial opportunity for Probuphine could be significantly harmed if competitors are able to develop alternative formulations and/or drug delivery technologies outside the scope of our capabilities. Our principal competition in the opioid addiction treatment market comes from manufacturers of oral buprenorphine products, including Indivior PLC, which markets the Suboxone and Subutex brands, as well from manufacturers of weekly or monthly injectable treatments, one of which was recently launched by Indivior PLC. Our competitors may also develop, acquire or license products that are more effective, more useful, better tolerated, subject to fewer or less severe side effects, more widely prescribed or accepted or less costly than ours and may also be more successful than we are in manufacturing and marketing their products. In addition, state pharmacy laws may permit pharmacists to substitute generic products for branded products if the products are therapeutic equivalents, or may permit pharmacists and pharmacy benefit managers to seek prescriber authorization to substitute generics in place of our products, which could significantly diminish demand for Probuphine. If we are unable to compete effectively with the marketed therapeutics of our competitors or if such competitors are successful in developing products that compete with Probuphine, our business, results of operations, financial condition and prospects may be materially adversely affected.

If we or our collaborators are unable to achieve and maintain adequate levels of coverage and reimbursement for Probuphine on reasonable pricing terms, or we or our collaborators fail to do so for any of our other product candidates for which we may receive regulatory approval, their commercial success may be severely limited.

Successful sales of Probuphine or any other product we may successfully develop will depend on the availability of adequate coverage and reimbursement from third-party payors, as well as the ease of use and transparency of such processes and systems once in place. Patients who are prescribed medicine for the treatment of their conditions generally rely on third-party payors to reimburse all or part of the costs associated with their prescription drugs. Adequate coverage and reimbursement from governmental healthcare programs, such as Medicare and Medicaid, and commercial payors are critical to new product acceptance. Third-party payors, whether governmental or commercial, are developing increasingly sophisticated methods of controlling healthcare costs. In addition, in the United States, no uniform policy of coverage and reimbursement for drug products exists among third-party payors. Therefore, coverage and reimbursement for drug products can differ significantly from payor to payor. Coverage decisions may depend upon clinical and economic standards that disfavor new drug products such as ours when more established or lower cost therapeutic alternatives are already available or subsequently become available. Decisions regarding the extent of coverage and amount of reimbursement to be provided for products and product candidates that we develop will be made on a plan-by-plan basis. As a result, the coverage determination process is often a time-consuming and costly process that may require us or our partners to provide scientific and clinical support for the use of our products to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained.

Reimbursement for implantable drug products that require administration by a healthcare provider generally requires a drug code, and separate reimbursement codes are required for the insertion and removal procedures. The timely availability of a drug code or procedure code that covers our product or describes the procedures performed using our products, or a change to an existing code that describes such procedures is critical for successful commercialization and the lack of such codes may adversely affect reimbursement for our products and these procedures, including lower reimbursement rates, denials and delays in reimbursement if pre-authorization is required. Even if coverage is approved, the resulting reimbursement payment rates might not be adequate or may require co-payments that patients find unacceptably high. Patients are unlikely to use our products unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of our products. While Probuphine was approved by the FDA in late May 2016, the procedure codes (G codes) for insertion only, removal only, and insertion plus removal were approved only in late 2017 and went into effect in January 2018.

In addition, the market for our products may depend on access to third-party payors' drug formularies, or lists of medications for which third-party payors provide coverage and reimbursement. The industry competition to be included in such formularies often leads to downward pricing pressures on pharmaceutical companies. Also, third-party payors may refuse to include a particular branded drug in their formularies or otherwise restrict patient access to a branded drug when a less costly generic equivalent or other alternative is available. Also, regional healthcare authorities and individual hospitals are increasingly using competitive bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other healthcare programs. This can reduce demand for our products or put pressure on our product pricing, which could negatively affect our business, results of operations, financial condition and prospects.

Further, we believe that future coverage and reimbursement will likely be subject to increased restrictions both in the United States and in international markets. Third-party coverage and reimbursement for Probuphine or any of our product candidates for which we may receive regulatory approval may not be available or adequate in either the United States or international markets, which could have a material adverse effect on our business, results of operations, financial condition and prospects.

Health care reform measures and changes in policies, funding, staffing and leadership at the FDA and other agencies could hinder or prevent the commercial success of our products.

In the United States, there have been a number of legislative and regulatory changes to the healthcare system in ways that could affect our future results of operations and the future results of operations of our potential customers. For example, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 established a new Part D prescription drug benefit, which became effective January 1, 2006. Under the prescription drug benefit, Medicare beneficiaries can obtain prescription drug coverage from private sector plans that are permitted to limit the number of prescription drugs that are covered in each therapeutic category and class on their formularies. If our products are not widely included on the formularies of these plans, our ability to market our products may be adversely affected.

Furthermore, there have been and continue to be a number of initiatives at the federal and state levels that seek to reduce healthcare costs. In March 2010, the Patient Protection and Affordable Health Care Act of 2010, as amended by the Health Care and Education Affordability Reconciliation Act of 2010, or collectively "ACA", was signed into law, which includes measures to significantly change the way health care is financed by both governmental and private insurers.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. On August 2, 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of up to 2% per fiscal year. On January 2, 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These laws may result in additional reductions in Medicare and other health care funding, which could have a material adverse effect on our customers and accordingly, our financial operations.

Additionally, individual states have become increasingly aggressive in passing legislation and implementing regulations designed to control pharmaceutical product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access, and marketing cost disclosure and transparency measures, and designed to encourage importation from other countries and bulk purchasing. Legally-mandated price controls on payment amounts by third-party payors or other restrictions could harm our business, results of operations, financial condition and prospects.

In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other healthcare programs. This can reduce demand for our products or put pressure on our product pricing, which could negatively affect our business, results of operations, financial condition and prospects.

Additionally, given recent federal and state government initiatives directed at lowering the total cost of healthcare, Congress and state legislatures will likely continue to focus on healthcare reform, the cost of prescription drugs and the reform of the Medicare and Medicaid programs. While we cannot predict the full outcome of any such legislation, it may result in decreased reimbursement for prescription drugs, which may further exacerbate industry-wide pressure to reduce prescription drug prices. This could harm our ability to market our products and generate revenues. In addition, legislation has been introduced in Congress that, if enacted, would permit more widespread importation or re-importation of pharmaceutical products from foreign countries into the United States, including from countries where the products are sold at lower prices than in the United States. Such legislation, or similar regulatory changes, could lead to a decision to decrease our prices to better compete, which, in turn, could adversely affect our business, results of operations, financial condition and prospects. It is also possible that other legislative proposals having similar effects will be adopted.

Furthermore, regulatory authorities' assessment of the data and results required to demonstrate safety and efficacy can change over time and can be affected by many factors, such as the emergence of new information, including on other products, changing policies and agency funding, staffing and leadership. We cannot be sure whether future changes to the regulatory environment will be favorable or unfavorable to our business prospects.

We may not be able to implement our business plan if we are unable to attract and retain key personnel and consultants.

As a company with a limited number of personnel, we are highly dependent on the services of our executive management and scientific staff, in particular Sunil Bhonsle, our President and Chief Executive Officer, Marc Rubin, our Executive Chairman and Katherine DeVarney our Executive Vice President and Chief Scientific Officer. The loss of one or more of such individuals could substantially impair ongoing research and development programs and could hinder our ability to obtain corporate partners.

Our ability to commercialize Probuphine effectively depends in large part upon our ability to attract and retain highly qualified sales, marketing and support personnel. We compete in our hiring efforts with other pharmaceutical and biotechnology companies and it may be difficult and could take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required and because of our limited resources.

In addition, we retain scientific and clinical advisors and consultants to assist us in formulating our clinical and commercial strategies. Competition to hire and retain consultants from a limited pool is intense. Further, because these advisors are not our employees, they may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to us, and typically they will not enter into non-compete agreements with us. If a conflict of interest arises between their work for us and their work for another entity, we may lose their services. In addition, our advisors may have arrangements with other companies to assist those companies in developing products or technologies that may compete with ours.

We face potential liability related to the privacy of health information we obtain from clinical trials sponsored by us or our collaborators, from research institutions and our collaborators, and directly from individuals.

Numerous federal and state laws, including state security breach notification laws, state health information privacy laws, and federal and state consumer protection laws, govern the collection, use, and disclosure of personal information. In addition, most health care providers, including research institutions from which we or our collaborators obtain patient health information, are subject to privacy and security regulations promulgated under the Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act. Although we are not directly subject to HIPAA, we could potentially be subject to criminal penalties if we, our affiliates, or our agents knowingly obtain or disclose individually identifiable health information maintained by a HIPAA-covered entity in a manner that is not authorized or permitted by HIPAA.

Risks Related to Our Financial Condition and Need for Additional Capital

We have incurred net losses in almost every year since our inception and we may never achieve or sustain profitability.

We have incurred net losses in almost every year since our inception. Our financial statements have been prepared assuming that we will continue as a going concern. For the six months ended June 30, 2018 and 2017, we had net losses of approximately $3.47 million and $6.46 million, respectively, and had net cash used in operating activities of approximately $2.86 million and $5.63 million, respectively. For the year ended December 31, 2017, we had a net losses of approximately $14.31 million and had net cash used in operating activities of approximately $13.04 million. These net losses and negative cash flows have had, and will continue to have, an adverse effect on our stockholders' equity and working capital.

To date, we have devoted most of our financial resources to our corporate overhead and research and development, including our drug discovery research, preclinical development activities and clinical trials. We expect to continue to incur net losses and negative operating cash flow for the foreseeable future, and we expect these losses to increase as we add infrastructure and personnel to support our transition to a commercial enterprise. The amount of future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate significant revenues. There can be no assurance that we will ever achieve profitability.

We will require additional proceeds to fund our operations and to continue as a going concern.

We currently estimate that our available cash at June 30, 2018, together with the approximately $1.1 million received from Molteni in August 2018 and the proceeds of this offering, will be sufficient to fund our Probuphine commercial efforts and Phase IV clinical program through 2019. We will require additional funds to advance our ProNeura development programs during such period and to complete the regulatory approval process necessary to commercialize any products we might develop. While we are currently evaluating the alternatives available to us, including government grants and third-party collaborations for one or more of our ProNeura programs, our efforts to address our liquidity requirements may not be successful. We may also need additional funds to complete the required post-approval clinical trials and there can be no assurance that revenues for operations or any other source of capital will be available to us on acceptable terms. While we expect to have adequate resources in order to operate our business through the next 12 months, our auditors may have doubt about our ability to continue as a going concern in future periods, and our financial statements relating to those periods may not be prepared on a going-concern basis based on any such doubts. In addition, if one or more of the risks discussed in these risk factors occur or our expenses exceed our expectations, we may be required to raise further additional funds sooner than anticipated. The inclusion of a going concern modification in our independent registered public accounting firm's report for the year ended December 31, 2017, or in any future report, may materially and adversely affect our stock price or our ability to raise new capital.

Our need for future financing may result in the issuance of additional securities which will cause investors to experience dilution.

Our cash requirements may vary from those now planned depending upon numerous factors, including the result of future research and development activities. We expect our expenses to increase in connection with our ongoing activities, particularly as we continue the research and development and initiate and conduct clinical trials of, and seek marketing approval for, our product candidates. In addition, if we obtain marketing approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. We may seek additional funding through a combination of equity offerings or debt financings. Our securities may be offered to other investors at a price lower than the price per share offered to current stockholders, or upon terms which may be deemed more favorable than those offered to current stockholders. In addition, the issuance of securities in any future financing may dilute an investor's equity ownership and have the effect of depressing the market price for our securities. Moreover, we may issue derivative securities, including options and/or warrants, from time to time, to procure qualified personnel or for other business reasons.

The issuance of any such derivative securities, which is at the discretion of our board of directors, may further dilute the equity ownership of our stockholders. No assurance can be given as to our ability to procure additional financing on terms deemed favorable to us. To the extent additional capital is required and cannot be raised successfully, we may then have to limit our then current operations and/or may have to curtail certain, if not all, of our business objectives and plans.

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

At December 31, 2017, we had federal net operating loss and tax credit carryforwards of $261.0 million and $8.9 million, respectively, and state net operating loss and tax credit carryforwards of $107.1 million and $8.8 million, respectively, available to offset future taxable income, if any. Current federal and state tax laws include substantial restrictions on the utilization of net operating loss and tax credits in the event of an ownership change and we cannot assure you that our net operating loss and tax carryforwards will continue to be available.

Our loan agreement contains restrictions on our operations and could result in certain adverse results.

Our Amended and Restated Venture Capital and Loan Agreement, or Loan Agreement, with Molteni and Horizon Technology Finance Corporation, or Horizon, contains a variety of affirmative covenants, including, without limitation, payment obligations, information delivery requirements and certain notice requirements. Additionally, we are bound by certain negative covenants setting forth actions that are not permitted to be taken during the term of the Loan Agreement without consent of Molteni, as the majority lender, including, without limitation, incurring certain additional indebtedness, making certain asset dispositions, entering into certain mergers, acquisitions or other business combination transactions or incurring any non-permitted lien or other encumbrance on our assets. Subject to certain forbearance provisions in effect through December 31, 2019, upon the occurrence of an event of default under the Loan Agreement (subject to any applicable cure periods), all amounts owed thereunder would begin to bear interest at a rate that is 5.0% higher than the rate that would otherwise be applicable and the outstanding loan may be declared immediately due and payable. Furthermore, the loan is secured by a perfected security interest in all of our assets, including our Probuphine and ProNeura intellectual property, which could be foreclosed upon in the event of a default that is not waived or cured.

Risks Related to this Offering and our Common Stock

Our share price may be volatile, which could subject us to securities class action litigation and prevent you from being able to sell your shares at or above your purchase price.

The market price of shares of our common stock could be subject to wide fluctuations in response to many risk factors listed in this section, and others beyond our control, including:

- results of our clinical trials;
- results of clinical trials of our competitors' products;
- regulatory actions with respect to our products or our competitors' products;
- actual or anticipated fluctuations in our financial condition and operating results;
- actual or anticipated changes in our growth rate relative to our competitors;
- actual or anticipated fluctuations in our competitors' operating results or changes in their growth rate;
- competition from existing products or new products that may emerge;
- announcements by us, our potential future collaborators or our competitors of significant acquisitions, strategic collaborations, joint ventures, or capital commitments;
- issuance of new or updated research or reports by securities analysts;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;

- inconsistent trading volume levels of our shares;
- additions or departures of key management or scientific personnel;
- disputes or other developments related to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- announcement or expectation of additional financing efforts;
- sales of our common stock by us, our insiders or our other stockholders;
- market conditions for biopharmaceutical stocks in general; and
- general economic and market conditions.

Furthermore, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of shares of our common stock. In addition, such fluctuations could subject us to securities class action litigation, which could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our share price and trading volume could decline.

The trading market for our common stock will depend on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. There can be no assurance that analysts will cover us or provide favorable coverage. If one or more of the analysts who cover us downgrade our stock or change their opinion of our stock, our share price would likely decline. If one or more of these analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our share price or trading volume to decline.

There is no active, public market for the warrants or Series A Preferred being offered in this offering.

There is no established public trading market for the warrants or the Series A Preferred being offered in this offering. We do not intend to apply to list the warrants or the Series A Preferred on a securities exchange. Without an active trading market, the liquidity of the warrants and the Series A Preferred will be limited.

Holders of Series A Preferred will have limited voting rights.

Except with respect to certain material changes in the terms of the Series A Preferred and certain other matters and except as may be required by Delaware law, holders of Series A Preferred will have no voting rights. You will have no right to vote for any members of our board of directors.

Holders of the warrants will not have rights of common stockholders until such warrants are exercised.

The warrants being offered do not confer any rights of common stock ownership on their holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire shares of common stock at a fixed price for a limited period of time. Specifically, commencing on the date of issuance, holders of the warrants may exercise their right to acquire the common stock and pay the exercise price prior to five years from the date of issuance, after which date any unexercised warrants will expire and have no further value.

Future sales of our common stock, or the perception that future sales may occur, may cause the market price of our common stock to decline, even if our business is doing well.

Sales by our stockholders of a substantial number of shares of our common stock in the public market could occur in the future. These sales, or the perception in the market that the holders of a large number of shares of common stock intend to sell shares, could reduce the market price of our common stock.

Exercise of options or warrants or conversion of convertible securities may have a dilutive effect on your percentage ownership and may result in a dilution of your voting power and an increase in the number of shares of common stock eligible for future resale in the public market, which may negatively impact the trading price of our shares of common stock.

The exercise or conversion of some or all of our outstanding options, warrants, or convertible securities could result in significant dilution in the percentage ownership interest of investors in this offering and in the percentage ownership interest of our existing common stockholders and in a significant dilution of voting rights and earnings per share.

As of August 10, 2018, we had outstanding warrants to purchase up to 1,708,181 shares of our common stock at a weighted exercise price of $2.37 per share and outstanding and options outstanding under our stock incentive plans to purchase up to 3,498,650 shares of our common stock at a weighted average exercise price of $3.39 per share. At such date there was also an aggregate of $2.4 million principal amount of outstanding indebtedness that is convertible into 2,000,000 shares of our common stock. To the extent options and/or warrants and/or conversion rights are exercised (including with respect to the warrants and any Series A Preferred issued in this offering), additional shares of common stock will be issued, and such issuance will dilute stockholders.

Investors in this offering will experience immediate and substantial dilution in net tangible book value.

The public offering price per share of common stock in this offering will be substantially higher than the net tangible book value per share of our outstanding shares of common stock. Accordingly, investors in this offering will pay a price per share that substantially exceeds the net tangible book value per share of our common stock. Based on an at an assumed public offering price of $0.75 per Class A Unit and $1,000 per Class B Unit, investors in this offering will incur immediate dilution of $0.45 per share. See “Dilution” for a more complete description of how the value of your investment will be diluted upon the completion of this offering.

We may seek to raise additional funds, finance acquisitions or develop strategic relationships by issuing securities that would dilute your ownership. Depending on the terms available to us, if these activities result in significant dilution, it may negatively impact the trading price of our shares of common stock.

We have financed our operations, and we expect to continue to finance our operations, acquisitions, if any, and the development of strategic relationships by issuing equity and/or convertible securities, which could significantly reduce the percentage ownership of our existing stockholders. Further, any additional financing that we secure, including any debt financing, may require the granting of rights, preferences or privileges senior to, or pari passu with, those of our common stock. Any issuances by us of equity securities may be at or below the prevailing market price of our common stock and in any event may have a dilutive impact on your ownership interest, which could cause the market price of our common stock to decline. We may also raise additional funds through the incurrence of debt or the issuance or sale of other securities or instruments senior to our shares of common stock. The holders of any securities or instruments we may issue may have rights superior to the rights of our common stockholders. If we experience dilution from the issuance of additional securities and we grant superior rights to new securities over common stockholders, it may negatively impact the trading price of our shares of common stock and you may lose all or part of your investment.

Our management will have broad discretion over the use of proceeds from this offering and may not use the proceeds effectively.

Our management will have broad discretion over the use of proceeds from this offering. The net proceeds from this offering will be used for our operations and for other general corporate purposes, including, but not limited to, building our infrastructure, including a small sales and marketing team, to commercialize Probuphine, conduct of the Phase IV trials required by the FDA, our internal research and development programs and general working capital. Our management will have considerable discretion in the application of the net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. The net proceeds may be used for corporate purposes that do not improve our operating results or enhance the value of our common stock.

Our failure to meet the continued listing requirements of Nasdaq could result in a de-listing of our common stock.

On April 9, 2018, we received a notice from Nasdaq that because our stockholders' equity is less than $2,500,000, we are no longer in compliance with the minimum stockholders' equity requirement for continued listing pursuant to Nasdaq Listing Rule 5550(b)(1). Following our submission of a plan of compliance, we were granted an extension of 180 calendar days, or until October 8, 2018, to regain compliance. At June 30, 2018, we had a stockholders' deficit of approximately 1.3 million. The proceeds of this offering, together with the proceeds from Molteni in August 2018, pursuant to the Purchase Agreement will enable us to achieve the minimum stockholders' equity requirement.

If we fail to satisfy the continued listing requirements of Nasdaq, such stockholders' equity requirement or the minimum closing bid price requirement, Nasdaq may take steps to de-list our common stock. Such a de-listing would likely have a negative effect on the price of our common stock and would impair your ability to sell or purchase our common stock when you wish to do so. In the event of a de-listing, we would take actions to restore our compliance with Nasdaq's listing requirements, but we can provide no assurance that any such action taken by us would allow our common stock to become listed again, stabilize the market price or improve the liquidity of our common stock, prevent our common stock from dropping below the Nasdaq minimum bid price requirement or prevent future non-compliance with Nasdaq's listing requirements.

Provisions in our corporate charter documents and under Delaware law could make an acquisition of our company, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our amended and restated certificate of incorporation and our amended and restated bylaws may discourage, delay or prevent a merger, acquisition or other change in control of our company that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, because our board of directors is responsible for appointing the members of our management team, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors. Among other things, these provisions provide that:

- the authorized number of directors can be changed only by resolution of our board of directors;
- our bylaws may be amended or repealed by our board of directors or our stockholders;
- stockholders may not call special meetings of the stockholders or fill vacancies on the board of directors;
- our board of directors is authorized to issue, without stockholder approval, preferred stock, the rights of which will be determined at the discretion of the board of directors and that, if issued, could operate as a "poison pill" to dilute the stock ownership of a potential hostile acquirer to prevent an acquisition that our board of directors does not approve;
- our stockholders do not have cumulative voting rights, and therefore our stockholders holding a majority of the shares of common stock outstanding will be able to elect all of our directors; and
- our stockholders must comply with advance notice provisions to bring business before or nominate directors for election at a stockholder meeting.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, or the DGCL, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

We have never paid any cash dividends and have no plans to pay any cash dividends in the future.

Holders of shares of our common stock are entitled to receive such dividends as may be declared by our board of directors. To date, we have paid no cash dividends on our shares of our preferred or common stock and we do not expect to pay cash dividends in the foreseeable future. In addition, the declaration and payment of cash dividends is restricted under the terms of our existing Loan Agreement. We intend to retain future earnings, if any, to provide funds for operations of our business. Therefore, any return investors in our preferred or common stock may have will be in the form of appreciation, if any, in the market value of their shares of common stock.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference in this prospectus contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Exchange Act. All statements other than statements of historical facts contained or incorporated by reference in this prospectus, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

The words "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "will," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward-looking statements include, among other things, statements about:

- our ability to implement our business plan;
- our ability to raise additional capital to meet our liquidity needs;
- our ability to generate sufficient proceeds from this offering;
- our ability to generate product revenues;
- our ability to achieve profitability;
- our ability to satisfy U.S. (including the FDA), and international regulatory requirements;
- our ability to obtain market acceptance of our technology and products;
- our ability to compete in the market;
- our ability to advance our clinical trials;
- our ability to fund, design and implement clinical trials;
- our ability to demonstrate that our product candidates are safe for human use and effective for indicated uses;
- our ability to gain acceptance of physicians and patients for use of our products;
- our dependency on third-party researchers and manufacturers and licensors;
- our ability to effectively implement cost-cutting measures;
- our ability to establish and maintain strategic partnerships, including for the distribution of products;
- our ability to attract and retain sufficient, qualified personnel;
- our ability to obtain or maintain patents or other appropriate protection for the intellectual property;
- our dependency on the intellectual property licensed to us or possessed by third parties;
- our ability to adequately support future growth;
- our ability to maintain our Nasdaq listing; and
- potential product liability or intellectual property infringement claims.

These forward-looking statements are only predictions and we may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, so you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have based these forward-looking statements largely on our current expectations and projections about future events and

trends that we believe may affect our business, financial condition and operating results. We have included important factors in the cautionary statements included in this prospectus, and in the documents incorporated by reference, particularly in the 'Risk Factors' section, that could cause actual future results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

The forward-looking statements included in this prospectus, and documents incorporated by reference in this prospectus, represent our views as of the date of this prospectus. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus.

This prospectus contains estimates made, and other statistical data published, by independent parties and by us relating to market size and growth and other data about our industry. We obtained the industry and market data in this prospectus from our own research as well as from industry and general publications, surveys and studies conducted by third parties. This data involves a number of assumptions and limitations and contains projections and estimates of the future performance of the industries in which we operate that are subject to a high degree of uncertainty. We caution you not to give undue weight to such projections, assumptions and estimates.

USE OF PROCEEDS

We estimate that the net proceeds from sale of Units offered by us will be approximately $13.6 million, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, and assuming a public offering price of $0.75 per Class A Unit and $1,000 per Class B Unit. If the underwriters' option to purchase additional securities is exercised in full, we estimate that our net proceeds will be approximately $15.7 million, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, and assuming a public offering price of $0.75 per Class A Unit and $1,000 per Class B Unit.

We anticipate that we will use the net proceeds from this offering for our operations and for other general corporate purposes, including, but not limited to, building our infrastructure, including a small sales and marketing team, to commercialize Probuphine, conduct of the Phase IV trials required by the FDA and general working capital.

This expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions. Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term, investment grade, interest bearing instruments and U.S. government securities.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization, as of June 30, 2018:

- on an actual basis; and
- on an as adjusted basis after giving effect to the sale of 3,000,000 Class A Units, at the assumed public offering price of $0.75 per Class A Unit and 12,750 Class B Units, at the public offering price of $1,000 per Class B Unit, after deducting underwriting discounts and commissions and other estimated offering expenses payable by us.

You should consider this table in conjunction with "Use of Proceeds," "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus and our financial statements and unaudited as adjusted financial information and related notes thereto, which are incorporated by reference in this prospectus.

	As of June 30, 2018 (unaudited)	
	Actual	As Adjusted
Cash and cash equivalents	$ 1,613,564	$ 15,223,564
Total liabilities	$ 5,930,277	$ 5,930,277
Total stockholders' equity:		
Preferred stock, $0.001 par value; 5,000,000 shares authorized, 0 shares issued and outstanding, actual; 12,750 shares issued and outstanding, as adjusted	—	13
Common Stock, $0.001 par value, 125,000,000 shares authorized, 21,203,744 shares issued and outstanding, actual; 24,203,744 shares issued and outstanding, as adjusted	21,204	24,204
Additional paid in capital	325,411,154	339,018,141
Accumulated deficit	(326,745,543)	(326,745,543)
Total stockholders' equity	(1,313,185)	12,296,815

The number of shares of our common stock that will be outstanding immediately after this offering is based on 21,203,744 shares of common stock outstanding as of June 30, 2018, and excludes as of such date:

- 3,647,863 shares of common stock issuable upon exercise of outstanding options, at a weighted average exercise price of $3.42 per share, of which 2,795,862 shares are vested as of such date;
- 46,000 shares of common stock reserved for future issuance under the 2015 Plan;
- 1,708,181 shares of common stock issuable upon exercise of warrants at a weighted average exercise price of $2.37;
- 2,000,000 shares of common stock issuable upon conversion of $2.4 million principal amount of outstanding indebtedness;
- shares of our common stock issuable upon exercise of the warrants to be issued in this offering; and
- shares of our common stock issuable upon conversion of the Series A Preferred to be issued in this offering.

The number of shares of our common stock outstanding after this offering will fluctuate depending on how many Class B Units are sold in this offering and whether and to what extent holders of Series A Preferred shares convert their shares to common stock.

To the extent we sell any Class B Units in this offering, the same aggregate number of common stock equivalents resulting from this offering would be convertible under the Series A Preferred issued as part of the Class B Units.

The foregoing information assumes no exercise by the underwriters of their option to purchase additional securities and excludes shares of our common stock issuable upon exercise of the representative's warrants (4% of the shares of common stock sold in this offering, including shares issuable upon conversion of the Series B Preferred but excluding any securities sold upon exercise of the underwriter's option to purchase additional securities or shares issuable upon exercise of the warrants).

DILUTION

If you purchase shares of our securities in this offering, you will experience dilution to the extent of the difference between the public offering price per share in this offering and our as adjusted net tangible book value per share immediately after this offering. Net tangible book value per share is equal to the amount of our total tangible assets, less total liabilities, divided by the number of outstanding shares of our common stock. As of June 30, 2018, our net tangible book value was approximately $(1,313,185), or approximately $(0.06) per share.

After giving effect to the assumed sale by us of 20,000,000 shares of our common stock in this offering at a public offering price of $0.75 per share (which was the last reported sale price of our common stock on the Nasdaq Capital Market on August 29, 2018), and the accompanying common warrants at a purchase price of $0.01 per common warrant and assuming no sale of any Series A Preferred shares in this offering and excluding the proceeds, if any, from the exercise of the common warrants and after deducting the estimated underwriting discount and estimated offering expenses payable by us, our pro forma net tangible book value as of June 30, 2018 would have been approximately $12.3 million, or approximately $0.30 per share. This represents an immediate increase in pro forma net tangible book value of $0.36 per share to existing stockholders and an immediate dilution of $0.45 per share to new investors purchasing securities in this offering. The following table illustrates this per share dilution:

Assumed public offering price per share of common stock		$ 0.75
Historical net tangible book value per share as of June 30, 2018	$ (0.06)	
Increase in pro forma net tangible book value per share after this offering	$ 0.36	
Pro forma net tangible book value per share after giving effect to this offering		0.30
Dilution per share to new investors		$(0.45)

The information above and below assumes that no Series A Preferred shares are issued in this offering. The information above assumes that the underwriters do not exercise their over-allotment option. If the underwriters exercise their over-allotment option in full, the pro forma net tangible book value will increase to $0.33 per share, representing an immediate increase to existing stockholders of $0.39 per share and an immediate dilution of $0.42 per share to new investors.

A $0.25 increase (decrease) in the assumed public offering price of $0.75 per share would result in an incremental increase (decrease) in our pro forma net tangible book value of approximately $4.7 million or approximately $0.11 per share, and would result in an incremental increase (decrease) in the dilution to new investors of approximately $0.14 per share, assuming that the number of shares of our common stock sold by us remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. A $0.50 increase (decrease) in the assumed public offering price of $0.75 per share would result in an incremental increase (decrease) in our pro forma net tangible book value of approximately $9.3 million or increase approximately $0.23 per share, and would result in an incremental increase (decrease) in the dilution to new investors of approximately $0.27 per share, assuming that the number of shares of our common stock sold by us remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We may also increase or decrease the number of shares of common stock we are offering from the assumed number of shares of common stock set forth above. An increase (decrease) of 250,000 in the assumed number of shares of common stock sold by us in this offering would result in an incremental increase (decrease) in our pro forma net tangible book value of approximately $0.2 million or approximately $0.002 per share, and would result in an incremental increase (decrease) in the dilution to new investors of approximately $0.002 per share, assuming that the assumed public offering price of the common stock remains the same and after deducting the estimated underwriting discount and estimated offering expenses payable by us. An increase (decrease) of 500,000 in the assumed number of shares of common stock sold by us in this offering would result in an incremental increase (decrease) in our pro forma net tangible book value of approximately $0.3 million or approximately $0.005 per share and would result in an incremental increase (decrease) in the dilution to new investors of approximately $0.005 per share, assuming that the assumed public offering price of the common stock remains the same and after deducting the estimated

underwriting discount and estimated offering expenses payable by us. The information discussed above is illustrative only and will adjust based on the actual public offering price, the actual number of securities in this offering and other terms of this offering determined at pricing. The information discussed above is illustrative only and will adjust based on the actual public offering price, the actual number of securities in this offering and other terms of this offering determined at pricing.

The foregoing discussion and table do not take into account further dilution to new investors that could occur upon the exercise of outstanding options or warrants and the common warrants offered hereby. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Our common stock has been listed on The Nasdaq Capital Market since October 2015. The following table sets forth, for the periods indicated, our high and low sales prices on The Nasdaq Capital Market.

	High	Low
2018		
First Quarter	$1.45	$0.94
Second Quarter	$1.15	$0.60
Third Quarter (through August 29, 2018)	$1.10	$0.74
2017		
First Quarter	$4.80	$3.15
Second Quarter	$3.40	$1.80
Third Quarter	$2.15	$1.20
Fourth Quarter	$2.85	$1.13
2016		
First Quarter	$4.91	$2.98
Second Quarter	$7.41	$4.76
Third Quarter	$6.17	$4.80
Fourth Quarter	$6.10	$3.80

Holders

As of August 29, 2018, we had 110 registered holders of record of our common stock. A substantially greater number of holders of our common stock are “street name” or beneficial holders, whose shares of record are held by banks, brokers, other financial institutions, and registered clearing agencies.

Dividend Policy

We do not anticipate paying dividends on our common stock. We currently intend to retain all of our future earnings, as applicable, to finance the growth and development of our business. Our Loan Agreement prohibits the payment of dividends while the debt remains outstanding. Any future determination as to the payment of cash dividends on our common stock, if otherwise permissible at the time, will be at our board of directors’ discretion and will depend on our financial condition, operating results, capital requirements and other factors that our board of directors considers to be relevant.

BUSINESS

The following information relates primarily to our Probuphine business, activities and prospects. For additional information regarding our business, we refer you to the documents that are incorporated by reference herein. See "Incorporation Of Certain Documents By Reference."

Overview

We are a pharmaceutical company developing proprietary therapeutics utilizing our proprietary long-term drug delivery platform, ProNeura**,** for the treatment of select chronic diseases for which steady state delivery of a drug provides an efficacy and/or safety benefit. We are currently transitioning to a commercial stage enterprise having recently re-acquired Probuphine, a product approved in the U.S. for management of opiate dependence. ProNeura is a continuous drug delivery system consisting of a small, solid rod made from a mixture of ethylene-vinyl acetate, or EVA, and a drug substance. The resulting product is a solid matrix that is placed subdermally, normally in the inside part of the upper arm in a simple physician office based procedure, and is removed in a similar manner at the end of the treatment period. The drug substance is released continuously through the process of dissolution resulting in a steady rate of release generally similar to intravenous administration avoiding the fluctuating peak and trough levels of oral dosing that pose problems in many disease settings.

Probuphine

Overview

Probuphine, our first marketed product based on our ProNeura drug delivery technology, is a six-month buprenorphine implant for the maintenance treatment of opioid addiction in patients who have achieved and sustained prolonged clinical stability on a dose of up to 8 mg per day of oral buprenorphine, which represents approximately twenty-five percent of oral buprenorphine prescriptions. Treatment with Probuphine requires a healthcare provider to be trained and certified under the Probuphine REMS program to insert a set of four implants, each smaller than a one-inch matchstick, sub-dermally in the patient's upper arm under local anesthetic during a short in-office procedure lasting about 15 minutes. After insertion, Probuphine delivers buprenorphine continuously for six months. Thereafter, the implants are removed and can be replaced with a new set of implants in the opposite arm.

The development and commercialization rights to Probuphine for the U.S. and Canada were licensed to Braeburn in December 2012 and following FDA approval in May 2016, Braeburn commenced a full commercial launch during the first quarter of 2017. Progress was slow and we received royalty revenues of only $215,000 for the year ended December 31, 2017. In early 2018, Braeburn substantially reduced its field sales force and medical liaison personnel following its receipt of a complete response letter from the FDA for its weekly and monthly depot injection products. Anticipating a negative impact on Probuphine sales in the U.S., we began discussing with Braeburn terms for the return of the Probuphine U.S. commercialization rights to Titan and on May 25, 2018, we entered into an agreement under which we received a $1 million payment from Braeburn and Braeburn's undertaking to provided transition services through 2018.

Based on feedback from key opinion leaders, we believe that access to care for patients with Probuphine has been negatively impacted by issues related to the complexity, timing and amount of reimbursement to patients and their doctors from insurance providers, as well as the requirements of the REMS program. Although the opioid addiction epidemic continues to be a major concern for our country, the hurdles to penetrating the market and growing sales of Probuphine have been considerable. We believe that a more focused commercialization strategy is necessary for success. These include re-segmenting target customer markets and focusing on high Probuphine-prescribing physicians with long-term recovery oriented treatment programs, residential treatment facilities that utilize MAT, academic institutions with addiction residency and fellowships programs, and the criminal justice system. We also plan to expand the specialty pharmacy network in order to better utilize the third party payor system. Additionally, we believe Probuphine can benefit from the trend of opioid addiction treatment's move towards extended release formulations, such as one month depot injections, the first of which was approved by the FDA at the end of 2017. These products will enable clinicians and patients to become accustomed to longer duration procedure-oriented treatment, which may encourage the potential use of Probuphine during the maintenance treatment stage.

In March 2017, we received confirmation from the EMA that Probuphine is eligible for a centralized review and approval process. While the preparation of the MAA was in progress, we met with the review teams of the two EMA member countries appointed as rapporteur (Ireland) and co-rapporteur (United Kingdom) to familiarize them with the development of Probuphine and the safety and efficacy data set, as well as receive their advice on the MAA preparation and presentation. The MAA was submitted to the EMA on November 6, 2017. We were also granted Small Manufacturing Entity, or SME, status in Europe, which provides for some monetary benefits during the application process and commercialization. On March 21, 2018, we entered into the Purchase Agreement pursuant to which Molteni acquired the European intellectual property related to Probuphine, including the MAA, and will have the exclusive right to commercialize the Titan supplied Probuphine product in Europe, as well as certain countries of the Commonwealth of Independent States, the Middle East and North Africa. We have continued to assist Molteni in the MAA review process and during the second quarter we had meetings with the rapporteur and co-rapporteur regulatory review teams to present our strategy to address specific questions asked by these regulatory agencies as part of the review process. Together with Molteni, we are now preparing the full response to all questions that were asked, and we expect to submit these to the EMA no later than mid-September 2018. Based on the overall review process timeline the final recommendation and potential approval would occur during the first half of 2019.

Agreements

Braeburn

In December 2012, we entered into a license agreement, or the Braeburn Agreement with Braeburn pursuant to which we granted Braeburn an exclusive right and license to commercialize Probuphine in the United States of America and its territories, including Puerto Rico, and Canada. Under the Braeburn Agreement, as subsequently amended, Braeburn made a non-refundable up-front license fee payment of $15.75 million in 2012 and a milestone payment of $15 million upon FDA approval of the NDA in May 2016. The agreement also entitled us to royalties on net sales of Probuphine ranging in percentage from the mid-teens to the low twenties. In February 2016, Braeburn entered into a Distribution and Sublicense Agreement, or the Knight Agreement, with Knight Therapeutics Inc., or Knight, in which it appointed Knight as the exclusive distributor of Probuphine in Canada and granted Knight an exclusive license to commercialize Probuphine in Canada.

On May 25, 2018, we entered into a Termination and Transition Services Agreement, or the Transition Agreement, with Braeburn pursuant to which we regained all rights to the commercialization and clinical development of Probuphine granted under the Braeburn Agreement and Braeburn agreed to provide assistance to Titan through December 28, 2018 to help ensure that patients and their doctors continue to have support and access to this treatment. As part of the Transition Agreement, we assumed a significant number of Braeburn's commercial contracts relating to the commercialization of Probuphine, including the Knight Agreement.

Knight

Under the Knight Agreement, as amended in August 2018, we granted Knight an exclusive license to commercialize Probuphine in Canada as well as a right of first negotiation in the event we intend to license our right to commercialize any of our other products in Canada. During the term of the Knight Agreement, we may not commercialize any product containing buprenorphine that is intended for a treatment duration of six months or more in Canada.

Pursuant to the Knight Agreement, Knight must use commercially reasonable efforts to commercialize Probuphine in Canada. We are entitled to receive royalty payments from Knight on net sales of Probuphine in Canada ranging in percentage from the low-teens to the mid-thirties. In addition, we will be the exclusive supplier of Probuphine to Knight subject to a supply agreement between us and Knight.

Unless earlier terminated, the initial term of the Knight Agreement will expire on the 15th anniversary of the date of the first commercial sale of Probuphine for opioid addiction in Canada, which is expected to occur during the fourth quarter of 2018. If Probuphine is approved for another indication in Canada after the fifth anniversary of the first commercial sale of Probuphine for opioid addiction in Canada, we must

negotiate in good faith whether to extend the initial term. After the initial term, the Knight Agreement will automatically renew for two-year periods until either party provides the other party with written notice of its intent not to renew at least 180 days prior to the expiration of the initial term or then-current term. We or Knight may terminate the Knight Agreement in the event that (i) either party determines in good faith that it is not advisable for Knight to continue to commercialize Probuphine in Canada as a result of a bona fide safety issue, (ii) the other party has filed for bankruptcy, reorganization, liquidation or receivership proceedings, or (iii) the other party materially breached the agreement and has not cured such breach within a specified time period. In addition, subject to certain exceptions and requirements, we may terminate the Knight Agreement (i) if Knight discontinues the commercial sale of Probuphine for a period of at least three months and fails to resume sales within the specified cure period, or (ii) in the event that Knight commences any legal proceedings seeking to challenge the validity or ownership of any of our patents related to Probuphine.

In the event of termination, among other things, Knight shall (i) cease commercialization of Probuphine in Canada, (ii) transfer title to all current and pending regulatory submissions and regulatory approvals for Probuphine to us and (iii) pay any royalty payments generated by Knight's sales of Probuphine in Canada due to us.

Molteni

On March 21, 2018, we entered into an Asset Purchase, Supply and Support Agreement with Molteni that was subsequently amended on August 3, 2018, or the Purchase Agreement, pursuant to which Molteni acquired the European intellectual property related to Probuphine, including the MAA under review by the EMA, and will have the exclusive right to commercialize the Titan supplied Probuphine product in Europe, as well as certain countries of the Commonwealth of Independent States, the Middle East and North Africa, or the Molteni Territory. We received an initial payment of €2.0 million ($2,448,000) for the purchased assets and an additional payment of €950,000 ($1,107,000) upon execution of the amendment. We will receive the following additional potential payments totaling up to €2.5 million (approximately $2,850,000) upon the achievement of certain regulatory and product label milestones, including: an aggregate of €1.0 million of milestone payments upon approval of the product reimbursement price in certain key countries, provided that the payments, which are subject to a 50% reduction if the EMA marketing authorization is not received on or prior to September 30, 2019, shall not be payable in the event such authorization is not received on or prior to March 31, 2020. Additionally, Titan is entitled to receive earn-out payments for up to 15 years on net sales of Probuphine in the Molteni Territory ranging in percentage from the low-teens to the mid-twenties.

The Purchase Agreement provides that Titan will supply Molteni with semi-finished product (i.e., the implant and the applicator) on an exclusive basis at a fixed price through December 31, 2019, with subsequent price increases not to exceed annual cost increases to Titan under its current manufacturing agreement and for the purchase of the active pharmaceutical ingredient.

Molteni will be prohibited from marketing a Competitor Product (as defined in the Purchase Agreement) in the Territory for the five year period following approval of the MAA. Thereafter, Molteni will be required to pay Titan a low single digit royalty on net sales by Molteni of any Competitor Product.

On March 21, 2018, we entered into the Loan Agreement, which amended and restated our prior loan agreement with Horizon. Under the Loan Agreement, Horizon assigned $2,400,000 of the $4,000,000 outstanding principal balance of the loan to Molteni and Molteni was appointed collateral agent and assumed majority and administrative control of the debt. Molteni has the right to convert its portion of the debt into shares of our common stock at a conversion price of $1.20 per share and is required to effect this conversion of debt to equity if we complete an equity financing resulting in gross proceeds of at least $10,000,000 at a price per share of common stock in excess of $1.20 and repay the $1,600,000 principal balance of Horizon's loan amount.

In consideration of Molteni's entry into the Purchase Agreement and the Loan Agreement, on March 21, 2018, we entered into an agreement with Molteni. or the Rights Agreement, pursuant to which, as amended, we agreed to (i) issue Molteni seven-year warrants to purchase 540,000 shares of our common stock at an exercise price of $1.20 per share, (ii) provide Molteni customary demand and piggy-back

registration rights with respect to the shares of common stock issuable upon conversion of its loan and exercise of its warrants, (iii) appoint one member of Titan's board of directors if Mr. Seghi Recli is not then serving on the board and (iv) provide board observer rights to Molteni if it has not designated a board nominee as well as certain information rights. The board designation, observer and information rights will terminate at such time as Molteni ceases to beneficially own at least one percent of our outstanding capital stock (inclusive of the shares issuable upon conversion of its note and exercise of its warrants).

In connection with the August 2018 amendment to the Purchase Agreement, Molteni committed to make a convertible loan to us of €550,000 (approximately $642,000) provided we have submitted the response to the 120-day letter from EMA on or prior to September 14, 2018 in accordance with the amendment. The convertible loan, if made, will convert automatically into shares of our common stock upon the issuance by the EMA of marketing approval for Probuphine at a conversion price per share equal to the lower of (i) the closing price on the loan funding date and (ii) the closing price on the conversion date. In the event the EMA has not granted marketing approval by December 31, 2019, the loan will become due and payable, together with accrued interest at the rate of one-month LIBOR (to the extent in excess of 1.10%) plus 9.50% per annum.

Sales and Marketing; Strategy for Probuphine Relaunch

Prior to Titan's reacquisition of Probuphine commercialization rights in May 2018, Braeburn had sole responsibility for sales and marketing of Probuphine within the United States and, through Knight, in Canada. Since reacquiring our rights, we have relied on Braeburn and a team of marketing, regulatory and addiction consultants to assist us as we transition to a commercial entity. We intend to allocate proceeds of this offering to build a small sales and marketing team of no more than 10 full time employees with experience in product marketing and supply chain logistics, medical liaison and training functions, third party payer medical access and field sales. This team will focus initially on four key market segments.

We believe that patient access to Probuphine has been negatively impacted by issues related to the complexity, timing and amount of reimbursement to patients and their doctors from insurance providers, as well as the requirements of the REMS program. See "REMS Program" below. We also believe that the broad marketing strategy that was initially undertaken reflected an incomplete understanding of the market and did not provide the requisite systems to support the reimbursement process and patient and physician education.

Our market strategy for the relaunch of Probuphine targets four market segments:

High Probuphine-prescribing physicians with long-term recovery oriented treatment programs

While there are currently approximately 52,000 buprenorphine certified healthcare providers in the U.S., approximately 90% of prescriptions for treating the 600,000 – 700,000 patients treated with oral buprenorphine are written by approximately 6,000 providers. Moreover, while over 2,500 healthcare providers are trained and certified to administer Probuphine, to date less than 200 have prescribed the treatment.

Our plan is to initially focus on the top tier of prescribers to facilitate the growth of their businesses through increased utilization of Probuphine. Utilizing some of the top tier providers, we will establish centers of excellence that will provide sites for referrals from other health care providers. In addition, our medical access specialists will provide resources to help lessen the complexity of the supply chain and reimbursement process. In the longer term, some top tier Probuphine providers will also engage in investigator sponsored research which can generate new and clinically meaningful data, some of which will help us assess the potential for label expansion. We will also seek to partner with buprenorphine advocacy groups that can facilitate patient-healthcare provider location matching and broaden patient outreach.

Residential Treatment Facilities

There are currently numerous residential addiction treatment facilities in the U.S. reflecting a large potential patient population who can benefit from Probuphine. These facilities have mostly relied on 12 step programs with the goal of complete and sustained abstinence while avoiding any MAT. However, the success of such programs has not withstood scrutiny, as it has been increasingly recognized that a very

high percentage patients with opiate addiction ultimately relapse. Consequently, the use of MAT as part of the management of OUD has been increasing, and is expected to rise substantially in the near term. Our plan is to establish alliances with a few large programs.

Academic institutions with addiction treatment and training programs

There are an increasing number of academic addiction medicine training programs that treat OUD patients. We plan to form alliances with institutions that already have the necessary trained personnel and equipment for doing small procedures, and facilitate the introduction and/or increased use of Probuphine for appropriate patients. This will also serve to introduce Probuphine to the next generation of addiction specialists. In the longer term, we expect that KOLs at some of these sites will initiate investigator sponsored studies which can generate clinically meaningful data while helping us assess the potential for label expansion.

Criminal Justice System

It is estimated that of the 2.3 million people currently confined in U.S. correctional facilities, approximately 25% suffer from OUD. Currently, less than 1% of U.S. prisons and jails allow access to medication for OUD due largely to the risk of misuse and diversion of sublingual formulations (pills, film), However, new research published by JAMA Psychiatry has demonstrated benefits of buprenorphine during incarceration and upon release. In Rhode Island, a recent study found that opioid overdose deaths dropped by nearly 2/3 when MAT was provided to all state inmates. A few criminal justice programs have begun to utilize medications in order to address jail overcrowding and recidivism related to OUD.

Our goal is to initially establish pilot projects with a few select criminal justice programs, with the goal of generating meaningful data that potentially supports the use of Probphine in this setting. The first pilot program will be conducted within the Nevada criminal justice system.

REMS Program

As a condition to the FDA's approval of Probuphine, we were required to maintain the Probuphine REMS program, to mitigate the risk of complications of migration, protrusion, expulsion and nerve damage potentially associated with the improper insertion and removal of Probuphine, and the risks of accidental overdose, misuse and abuse. The REMS requires training for healthcare providers who prescribe and insert Probuphine implants and patient counseling, and Probuphine distribution is restricted to those healthcare providers who have completed training and received certification under the Probuphine REMS. Accordingly, our sales and marketing team will include trained clinical educators who will be responsible for training, certification and on-going in-market technical support to assist doctors in developing expertise with the Probuphine insertion and removal procedures. The field force will also need to work closely with the reimbursement support personnel to help ensure that all information required to place Probuphine orders and to complete benefits investigations is provided on a timely basis.

Manufacturing

The manufacturing of Probuphine has primarily been conducted at DPT Laboratories, Inc., or DPT. We have entered into a commercial manufacturing agreement with DPT that governs the terms of the production and supply of Probuphine. Pursuant to the Purchase Agreement, we are responsible for the manufacture and supply of Probuphine as needed for the Molteni Territory.

To date, we have obtained the supply of bupenorphine from Teva Pharmaceuticals, Inc. under a commercial supply agreement similar to the one with DPT.

Intellectual Property

In June 2010, the United States Patent and Trademark Office, or USPTO, issued a patent covering methods of using Probuphine for the treatment of opiate addiction. Titan is the owner of this patent which claims a method for treating opiate addiction with a subcutaneously implanted device comprising buprenorphine and EVA, a biocompatible copolymer that releases buprenorphine continuously for extended periods of time. This patent will expire in June 2024. A U.S. continuation application is currently

pending which includes claims related to Probuphine for the treatment of pain. Related patents covering use of Probuphine with the continuous delivery technology for the treatment of opiate addiction have also been issued in Australia, Canada, Europe, India, Japan, Mexico and New Zealand. A further Probuphine application is pending in Hong Kong. On February 28, 2018, the European Patent Office issued us a patent covering composition for use claims for treating opioid dependence with a subdermal implant containing buprenorphine through June 2023. On March 21, 2018 we executed the Purchase Agreement with Molteni whereby the European intellectual property covering Probuphine, including the European patent, was acquired by Molteni.

Competition

The pharmaceutical and biotechnology industries are characterized by rapidly evolving technology and intense competition. Many companies of all sizes, including major pharmaceutical companies and specialized biotechnology companies, are engaged in the development and commercialization of therapeutic agents designed for the treatment of the same diseases and disorders that we target. Many of our competitors have substantially greater financial and other resources, larger research and development staff and more experience in the regulatory approval process. Moreover, potential competitors have or may have patents or other rights that conflict with patents covering our technologies.

With respect to Probuphine, there are no six-month implant formulations of buprenorphine on the market or in development, and the primary competition it faces comes from Indivior, PLC (formerly the pharmaceutical business of Reckitt Benckiser Group, PLC), which markets globally a sublingual buprenorphine product (tablet and film formulations trade name Subutex and Suboxone) for the treatment of opioid dependence that currently holds the dominant market share of global sales, and recently received FDA approval for a one month depot injection (tradename Sublocade) that became commercially available in the first quarter of 2018. Probuphine also faces competition from two additional proprietary daily dose formulations that have been approved by the FDA; the first is a sublingual tablet called Zubsolv marketed by Orexo and the second is a buccal patch called Bunavail marketed by Bio Delivery Sciences International. Also, during 2013 and 2014, several generic sublingual tablet formulations of buprenorphine similar to Suboxone and Subutex were approved by the FDA that are expected to compete in the opioid addiction treatment market. Other forms of buprenorphine are also in development by other companies, including intramuscular and intradermal one week and one month depot injections which, if approved, will also compete with our product. Braeburn has licensed rights to certain of such potential products and Titan is entitled to a low single digit royalty on net sales of competing products, if commercialized. However, Braeburn received a complete response letter, or CRL, to the depot formulations of buprenorphine (Camurus 2038) and the approval is likely delayed by several months. Alkermes, Inc. also markets Vivitrol®, a one-month depot injection of naltrexone as a maintenance treatment for opioid dependent patients who have successfully gone through a detoxification process and achieved abstinence.

Regulatory Matters

FDA

As a condition of the marketing approval for Probuphine, the FDA is requiring the conduct of three post-approval Phase IV clinical trials to assess potential safety risks associated with the insertion and removal of Probuphine, potential prolongation of the QT interval and to assess the potential for repeat administration of Probuphine into the same insertion site or insertion into an alternate site. The FDA established a schedule for carrying out the required studies. Prior to our reacquisition of Probuphine rights in May 2018, Braeburn had been in negotiations with the FDA regarding various design and protocol matters but had never commenced any of the mandated trials. We have begun interactions with the FDA regarding the timing, study design and conduct of the Phase IV trials and will allocate a portion of the proceeds of this offering to initiate such trials.

We will also request a meeting with FDA with the ultimate goal of exploring the potential for future expansion of the product label to cover a broader group of OUD patients and the possible pathways to accomplish that.

European Medicines Agency

In early March 2017, we received confirmation from the EMA that Probuphine is eligible for a centralized review and approval process. We were also granted Small Manufacturing Entity, or SME, status in Europe, which provides for some monetary benefits during the application process and commercialization. While the preparation of the MAA was in progress, we met with the review teams of the two EMA member countries appointed as rapporteur (Ireland) and co-rapporteur (United Kingdom) to familiarize them with the development of Probuphine and the safety and efficacy data set, as well as receive their advice on the MAA preparation and presentation. The MAA was submitted to the EMA on November 6, 2017.

In connection with the Purchase Agreement, all rights in the MAA were sold to Molteni and since then we have been working collaboratively with Molteni on the EMA regulatory approval process. On March 22, 2018, the EMA delivered its "120 Day Consolidated List of Questions" which addressed clinical, manufacturing and quality control areas. We have met with the rapporteur and co-rapporteur regulatory review teams to review key questions and provide our planned responses, and we have received constructive guidance from these teams.. We expect to submit, on behalf of Molteni, the response to the EMA's questions in mid-September.

Health Canada

In April 2018, Knight announced that it had received regulatory approval from Health Canada to commercialize Probuphine in Canada.

Additional Products in Development

The ProNeura platform was developed to address the need for a simple, practical method to achieve continuous long-term drug delivery, and, depending on the characteristics of the compound to be delivered, potentially can provide treatment on an outpatient basis over extended periods of up to 12 months. We believe that the benefits of this technology have been demonstrated by the clinical results to date with Probuphine, and the development and regulatory process have been affirmed by the FDA approval of this product. We have been evaluating opportunities to develop this drug delivery platform for other potential treatment applications in which conventional treatment is limited by variability in blood drug levels and poor patient compliance and where existing therapeutic compounds have sufficient potency to be effective at low doses.

ProNeura-Ropinirole for Parkinson's Disease

Parkinson's disease, or PD, is a disease of the central nervous system characterized by the loss of dopaminergic neurons, which leads to increasing activity in the brain region that influences movement and motor function. According to the Parkinson's Disease Foundation, approximately one million people in the U.S. suffer from PD, and this number is projected to double by 2030. Early stage PD patients are treated with daily doses of drugs designed to replace dopamine in the brain. However, these therapeutics typically lose their benefits after several years of chronic treatment, and trigger serious side effect. Many treated patients develop motor response fluctuations and/or drug-induced dyskinesias within only three to five years of treatment, and these symptoms are present in most patients after 10 to 12 years. Clinical and nonclinical research indicates that these motor side effects arise from the pulsatile dopaminergic stimulation resulting from current oral treatment. Continuous dopaminergic stimulation, or CDS, by subcutaneous infusion has been shown to palliate these motor complications, as well as to delay or prevent the onset of dyskinesias. We believe our ProNeura drug delivery technology provides a clinically-validated platform to safely and conveniently provide CDS for several months from a single treatment. Further, the subdermal placement of these implants eliminates many of the device-related complications associated with existing treatment modalities.

Based on these principles we designed an implant to deliver the drug ropinirole and conducted appropriate non-clinical studies, including a non-clinical study in an MPTP Parkinsonian primate model and demonstrated that a sustained non-fluctuating plasma level of ropinirole could be delivered safely for several months following implantation and could control PD symptoms without triggering dyskinesias in

severely lesioned primates. Following further optimization of the implant and completion of the IND enabling non-clinical studies, we submitted the IND application to the FDA in early 2017 and it was cleared in August 2017 for commencement of the proposed Phase 1/2 clinical study. The trial is an open-label, sequential, dose escalation study that will enroll approximately 20 subjects with idiopathic Parkinson's disease. The primary objectives are to characterize the pharmacokinetic profile of the ropinirole implants, to evaluate their safety and tolerability, and to explore potential signals of efficacy using established disease-specific assessment scales. The first patient was treated in October 2017 and initial data from the early patients in the study was obtained in early 2018. In July 2018, we announced that the independent Data Safety Monitoring Board had completed a review of the data from the first cohort of patients and recommended that the trial continue with enrollment of the second cohort of patients. However, due to limited resources and our need to focus on our Probuphine relaunch, we decided to temporarily postpone patient enrollment until such time, if ever, as resources allow.

Other Feasibility Programs

Our goal is to expand our product pipeline using the ProNeura implant platform, and we have been opportunistically evaluating other drugs and disease settings for use with the ProNeura platform in potential treatment applications where conventional treatment is limited by variability in blood drug levels and poor patient compliance.

We have conducted a feasibility assessment of a subcutaneous implant using our proprietary ProNeura sustained release technology to administer an opioid antagonist. A product that may deliver non-fluctuating, therapeutic levels of an opioid antagonist continuously for up to six months may be ideally suited for the prevention of opioid relapse and overdose. We are seeking support from agencies such as the National Institutes of Health for advancing a product candidate.

We are collaborating with the Walter Reed Army Institute of Research, or WRAIR, and the Southwest Research Institute in the early non-clinical evaluation of the ProNeura platform in malaria prophylaxis. The early data from this collaboration is encouraging and has been presented by the WRAIR staff at several conferences, and WRAIR is now seeking additional funding from the Department of Defense to continue the program with additional non-clinical testing of the implant formulations in large animal studies.

Early non-clinical testing is being conducted for the development of a kappa opioid receptor agonist implant for the treatment of chronic pain. If successfully developed and approved, this would offer a potential non-addictive opioid analgesic for the treatment of chronic pain. Formulation studies and early in vitro testing is being conducted for the potential development of an implant with a currently approved peptide for the treatment of adult type 2 diabetes mellitus. Also, in 2017 we completed early non-clinical development focused on formulation optimization of an implantable triiodothyronine (T3) product for the treatment of hypothyroidism. Any further development will depend on availability of resources and interest from partners.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding the beneficial ownership of our common stock as of August 29, 2018 by:

- our named executive officers;
- each of our directors;
- all of our current directors and executive officers as a group; and
- each stockholder known by us to own beneficially more than five percent of our common stock.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to the securities. Shares of Common Stock that may be acquired by an individual or group within 60 days of August 29, 2018, pursuant to the exercise of options are deemed to be outstanding for the purpose of computing the percentage ownership of such individual or group, but are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person shown in the table. The percentage of beneficial ownership of our Common Stock is calculated based on an aggregate of 21,203,744 shares outstanding as of August 29, 2018.

Unless otherwise indicated, the stockholders listed in the table have sole voting and investment power with respect to the shares indicated.

Name and Address of Beneficial Owner [1]	Shares Beneficially Owned	Percent of Shares Beneficially Owned
Joseph A. Akers [2]	49,819	*%
Sunil Bhonsle [3]	846,251	3.9
Rajinder Kumar [4]	15,000	*
M. David MacFarlane, Ph.D. [5]	79,552	*
James R. McNab, Jr. [6]	136,819	*
Marc Rubin, M.D. [7]	823,972	3.8
Federico Seghi Recli [8]	2,083	*
Scott A. Smith [9]	15,000	*
All executive officers and directors as a group (8) persons	1,968,496	8.7

* Less than one percent.

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

(2) Includes 36,819 shares issuable upon exercise of outstanding options.

(3) Includes (i) 655,989 shares issuable upon exercise of outstanding options and (ii) 54,684 shares held in a family trust for which he serves as trustee.

(4) Includes 15,000 shares issuable upon exercise of outstanding options.

(5) Includes 57,277 shares issuable upon exercise of outstanding options.

(6) Includes 36,819 shares issuable upon exercise of outstanding options.

(7) Includes 667,655 shares issuable upon exercise of outstanding options.

(8) Represents shares issuable upon exercise of outstanding options. Does not include 2,540,000 shares issuable upon conversion of notes and exercise of warrants held by Molteni. Mr. Seghi Recli does not have voting or dispositive power over, and disclaims beneficial ownership of, such underlying shares, except to the extent of his direct pecuniary interest therein. The shares attributed to Molteni are subject to a 4.99% exercise limitation.

(9) Includes 15,000 shares issuable upon exercise of outstanding options

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

In March 2018, we entered into the Loan Agreement, the Purchase Agreement and the Rights Agreement with Molteni. We received and an initial payment of €2.0 million ($2,448,000) for the purchased assets under the Purchase Agreement and granted Molteni seven-year warrants to purchase 540,000 shares of our common stock at an exercise price of $1.20 per share under the Rights Agreement. There is currently $2.4 million owed to Molteni under the Loan Agreement. On May 14, 2018, Federico Seghi Recli joined our board as lead director. Molteni is indirectly owned by Mr. Recli's immediate family.

On August 3, 2018, we entered into an amendment to the Purchase Agreement pursuant to which we received an additional payment of €950,000 ($1,107,000).

See "Business — Probuphine — Agreements" for a description of the Loan Agreement, the Purchase Agreement and the Rights Agreement.

DESCRIPTION OF SECURITIES WE ARE OFFERING

The following description of our capital stock and the provisions of our certificate of incorporation and our bylaws are summaries and are qualified by reference to the certificate of incorporation and the bylaws that will be in effect upon the closing of this offering. We have filed copies of these documents with the SEC as exhibits to our registration statement of which this prospectus forms a part. The descriptions of the common stock and preferred stock reflect changes to our capital structure that will occur prior to and upon the closing of this offering.

General

We are authorized to issue 125,000,000 shares of common stock, par value $0.001 per share, of which 21,203,744 shares are outstanding as of August 10, 2018 (28,410,575 shares on a fully diluted basis assuming exercise of all outstanding options, warrants and convertible debt) and 5,000,000 shares of "blank check" preferred stock, par value $0.0001 per share, none of which are currently outstanding.

Common Stock

Each holder of common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of the stockholders, including the election of directors. Our amended and restated certificate of incorporation and amended and restated bylaws do not provide for cumulative voting rights. Subject to preferences that may be applicable to any then outstanding preferred stock, the holders of our outstanding shares of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds. In the event of our liquidation, dissolution or winding up, holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock. Holders of our common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to the common stock. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of our preferred stock that are outstanding or that we may designate and issue in the future. All of our outstanding shares of common stock are fully paid and nonassessable.

Our common stock is currently listed on The Nasdaq Capital Market under the trading symbol "TTNP."

The transfer agent and registrar for our common stock is Continental Stock Transfer & Trust Company. They are located at 1 State Street, 30th floor, New York, New York 10004. Their telephone number is (212) 509-4000.

Warrants

The following summary of certain terms and provisions of the common warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the warrant agent agreement, the form of which is filed as an exhibit to the registration statement of which this prospectus forms a part. Continental Stock Transfer & Trust Company will act as warrant agent with respect to the warrants issued to the investors in this offering. Prospective investors should carefully review the terms and provisions of the form of warrant agent agreement for a complete description of the terms and conditions of the common warrants.

Form. The warrants will be issued in electronic book-entry form to the investors. You should review a copy of the form of warrant, which is filed as an exhibit to the registration statement of which this prospectus forms a part, for a complete description of the terms and conditions applicable to the warrants.

Exercisability. The warrants are exercisable at any time after their original issuance, expected to be _____ 2018, and at any time up to the date that is five years after their original issuance. The warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and, at any time a registration statement registering the issuance of the shares of common stock underlying the warrants under the Securities Act is effective and available for the issuance of such shares, or

an exemption from registration under the Securities Act is available for the issuance of such shares, by payment in full in immediately available funds for the number of shares of common stock purchased upon such exercise. If a registration statement registering the issuance of the shares of common stock underlying the warrants under the Securities Act is not effective or available and an exemption from registration under the Securities Act is not available for the issuance of such shares, the holder may, in its sole discretion, elect to exercise the warrant through a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the warrant. No fractional shares of common stock will be issued in connection with the exercise of a warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

Exercise Limitations. A holder will not have the right to exercise any portion of the warrant if the holder (together with its affiliates) would beneficially own in excess of 4.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrants.

Exercise Price. The exercise price per whole share of common stock purchasable upon exercise of the warrants is $. The warrants may also be exercised via cashless exercise, whereby the holder will receive upon exercise of the warrant (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the warrant. The exercise price is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock and also upon any distributions of assets, including cash, stock or other property to our stockholders.

Transferability. Subject to applicable laws, the warrants may be offered for sale, sold, transferred or assigned without our consent.

Exchange Listing. We do not plan on making an application to list the warrants on any national securities exchange or other nationally recognized trading system.

Fundamental Transactions. In the event of a fundamental transaction, as described in the warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the warrants will be entitled to receive upon exercise of the warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the warrants immediately prior to such fundamental transaction.

Right as a Stockholder. Except as otherwise provided in the warrants or by virtue of such holder's ownership of shares of our common stock, the holder of a warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the warrant.

Preferred Stock

Our board of directors is empowered, without stockholder approval, to issue shares of preferred stock with dividend, liquidation, redemption, voting or other rights which could adversely affect the voting power or other rights of the holders of common stock. In addition, the preferred stock could be utilized as a method of discouraging, delaying or preventing a change in control of us. Although we do not currently intend to issue any shares of preferred stock other than the Series A Preferred, we cannot assure you that we will not do so in the future.

Series A Convertible Preferred Stock

The following is a summary of the material terms of the Series A Preferred. This summary is not complete. The following summary of the terms and provisions of the Series A Preferred is qualified in its entirety by reference to the Series A Preferred, the form of which has been filed as an exhibit to the registration statement of which this prospectus is a part.

General. Our board of directors has designated up to _____ shares of the 5,000,000 authorized shares of preferred stock as Series A Convertible Preferred Stock. When issued, the shares of Series A Preferred will be validly issued, fully paid and non-assessable. Each share of Series A Preferred will have a stated value of $1,000 per share.

Rank. The Series A Preferred will rank on parity to our common stock.

Conversion. Each share of Series A Preferred is convertible into shares of our common stock (subject to adjustment as provided in the related certificate of designation of preferences, rights and limitations) at any time at the option of the holder at a conversion price equal to the stated value of the Series A Preferred of $1,000 divided by the public offering price of the Class A Units in this offering. Holders of Series A Preferred will be prohibited from converting Series A Preferred into shares of our common stock if, as a result of such conversion, the holder, together with its affiliates, would own more than 4.99% of the total number of shares of our common stock then issued and outstanding.

Liquidation Preference. In the event of our liquidation, dissolution or winding-up, holders of Series A Preferred will be entitled to receive the same amount that a holder of our common stock would receive if the Series A Preferred were fully converted into shares of our common stock at the conversion price (disregarding for such purposes any conversion limitations) which amounts shall be paid pari passu with all holders of common stock.

Voting Rights. Shares of Series A Preferred will generally have no voting rights, except as required by law and except that the affirmative vote of the holders of a majority of the then outstanding shares of Series A Preferred is required to, (a) alter or change adversely the powers, preferences or rights given to the Series A Preferred, (b) amend our certificate of incorporation or other charter documents in any manner that materially adversely affects any rights of the holders, (c) increase the number of authorized shares of Series A Preferred, or (d) enter into any agreement with respect to any of the foregoing.

Dividends. Shares of Series A Preferred will not be entitled to receive any dividends, unless and until specifically declared by our board of directors. The holders of the Series A Preferred will participate, on an as-if-converted-to-common stock basis, in any dividends to the holders of common stock.

Redemption. We are not obligated to redeem or repurchase any shares of Series A Preferred. Shares of Series A Preferred are not otherwise entitled to any redemption rights or mandatory sinking fund or analogous fund provisions.

Exchange Listing. We do not plan on making an application to list the Series A Preferred on any national securities exchange or other nationally recognized trading system.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Continental Stock Transfer & Trust Company.

UNDERWRITING

Alliance Global Partners is acting as the representative of the underwriters and the sole book-running manager in this offering. We have entered into an underwriting agreement dated , 2018 with the representative. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to each underwriter named below and each underwriter named below has severally and not jointly agreed to purchase from us, at the public offering price per share less the underwriting discounts and commissions set forth on the cover page of this prospectus, the number of Units listed next to its name in the following table:

Underwriters	Number of Class A Units	Number of Class B Units
Alliance Global Partners		
CIM Securities, LLC		

The underwriters are committed to purchase all the Units offered by us other than those covered by the option to purchase additional securities described below, if they purchase any Units. The obligations of the underwriters may be terminated upon the occurrence of certain events specified in the underwriting agreement. Furthermore, pursuant to the underwriting agreement, the underwriters' obligations are subject to customary conditions and representations and warranties contained in the underwriting agreement, such as receipt by the underwriters of officers' certificates and legal opinions.

We have agreed to indemnify the underwriters against specified liabilities, including liabilities under the Securities Act, and to contribute to payments the underwriters may be required to make in respect thereof.

The underwriters are offering the Units, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Option to Purchase Additional Securities

We have granted the underwriters an option to purchase additional shares of common stock and/or warrants to purchase common stock. This option, which is exercisable for up to 45 days after the date of this prospectus, permits the underwriters to purchase a maximum of additional shares of common stock (15% of the shares of common stock included in the Class A Units and the shares of common stock underlying the shares of Series A Preferred included in the Class B Units sold in this offering) and/or warrants to purchase a maximum of shares of common stock from us. If the underwriters exercise all or part of this option, they will purchase such common stock covered by the option at the public offering price per Class A Unit, minus once cent and the warrants covered by the option at a price of one cent per warrant, in each case less the underwriting discounts and commissions. If this option is exercised in full, the total offering price to the public will be approximately $ million and the total net proceeds, after expenses, to us will be approximately $ million.

Discounts, Commissions and Expense Reimbursement

The following table shows the public offering price, underwriting discount and proceeds, before expenses, to us. The information assumes either no exercise or full exercise by the underwriters of their option to purchase additional securities.

	Per Class B Unit	Per Class A Unit	Total Without Over-Allotment Option	Total With Over-Allotment Option
Public offering price	$	$	$	$
Underwriting discount[(1)]	$	$	$	$
Proceeds, before expense, to us	$	$	$	$

(1) We have agreed to pay the underwriters a commission of 4% of the gross proceeds of this offering attributable to participation by certain predetermined investors and 7% of the gross proceeds of this offering to the remaining investors.

The underwriters propose to offer the Units offered by us to the public at the public offering price per respective Unit set forth on the cover of this prospectus. In addition, the underwriters may offer some of the Units to other securities dealers at such price less a concession of up to $ per Class A Unit and $ per Class B Unit.

If all of the Units offered by us are not sold at the respective public offering prices per Unit, the underwriters may change the offering price per Unit and other selling terms by means of a supplement to this prospectus.

We have also agreed to reimburse certain of the representative's out of pocket expenses not to exceed $120,000, including the fees of underwriters' counsel, which will not exceed $70,000, $15,000 for IPREO software related expenses, $6,000 for background check expenses, $2,000 for tombstones and up to $27,000 in marketing related expenses including roadshow expenses.

We estimate that the total expenses of the offering payable by us, excluding the total underwriting discounts, commissions and underwriter expense reimbursement will be approximately $0.2 million.

Representative's Warrants

We have agreed to issue to the representative warrants to purchase up to an aggregate of shares of our common stock (4% of the shares of common stock included in the Class A Units and the shares of common stock underlying the shares of Series B Preferred included in the Class B Units sold in this offering, but excluding any shares of common stock underlying the warrants issued in this offering and any shares of common stock sold (and any shares of common stock underlying any warrants sold) upon exercise of the underwriters' option to purchase additional securities). The warrants will be exercisable at any time, and from time to time, in whole or in part, during the four-year period commencing one year from the effective date of the registration statement relating to this offering. The warrants are exercisable at a per share price equal to $____ per share, or 110% of the public offering price per Class A Unit in the offering. The warrants are deemed underwriter compensation by FINRA and are therefore subject to a 180-day lock-up pursuant to Rule 5110(g)(1) of FINRA. The underwriter (or permitted assignees under Rule 5110(g)(1)) will not sell, transfer, assign, pledge, or hypothecate these warrants or the securities underlying these warrants, nor will they engage in any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the warrants or the underlying securities for a period of 180 days from the effective date of the registration statement relating to this offering. In addition, the warrants provide for registration rights upon request, in certain cases. The demand registration right provided will expire five years from the effective date of the registration statement relating to this offering in compliance with FINRA Rule 5110(f)(2)(G)(iv). The piggyback registration right provided will expire seven years from the effective date of the registration statement relating to this offering in compliance with FINRA Rule 5110(f)(2)(G)(v). We will bear all fees and expenses attendant to registering the common stock issuable on exercise of the warrants other than underwriting commissions incurred and payable by the holders. The exercise price and number of shares issuable upon exercise of the warrants may be proportionately adjusted in the event of a stock split, stock dividend, recapitalization, reorganization or similar event involving the company in compliance with FINRA Rule 5110(f)(2)(G)(vi).

Lock-Up Agreements

We have agreed with the underwriter not to offer for sale, issue or sell, or register for offer or sale, any of our common stock or securities convertible into our common stock for a period of 90 days after the date of this prospectus, subject to certain exceptions. In addition, all of our directors and executive officers and one of our affiliated securityholders have entered into lock up agreements with the representative prior to the commencement of this offering pursuant to which each of these persons, for a period of 90 days from the closing date of this offering, without the prior written consent of the representative, agree not to (1) offer, pledge, sell, contract to sell, grant, lend, or otherwise transfer or dispose of, directly or indirectly, any of our shares of common stock or any securities convertible into or exercisable or exchangeable for shares our common stock owned or acquired on or prior to the closing date of this offering (including any common shares acquired after the closing date of this offering upon the conversion, exercise or exchange of such securities); (2) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities, whether any such transaction described

in clause (1) or (2) above is to be settled by delivery of common shares or such other securities, in cash or otherwise, except for certain exceptions and limitations; (3) file or caused to be filed any registration statement relating to the offering of any shares of our capital shares; or (4) publicly disclose the intention to make any offer, sale, pledge or disposition, or to enter into any transaction, swap, hedge or other arrangement relating to such securities.

Right of First Refusal

For a period of nine months immediately following the effective date of the registration statement in connection with this offering, we will grant the representative an irrevocable right of first refusal to act as lead investment banker, lead book-runner and/or lead placement agent, at the representative's sole discretion, for each and every future public and private equity and debt offering, including all equity-linked financings, by us or any of our successors or subsidiaries during such nine month period on terms customary to the representative, and the representative shall have the sole right to determine whether or not any other broker dealer shall have the right to participate in any such offering and the economic terms of any such participation.

Electronic Offer, Sale and Distribution of Securities

A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representative may agree to allocate a number of either class of Unit to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on these websites is not part of, nor incorporated by reference into, this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or any underwriter in its capacity as underwriter, and should not be relied upon by investors.

The Nasdaq Capital Market Listing

Our common stock is listed on The Nasdaq Capital Market under the symbol "TTNP."

Stabilization

In connection with this offering, the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate-covering transactions, penalty bids and purchases to cover positions created by short sales. Stabilizing transactions permit bids to purchase shares so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the shares while the offering is in progress.

Over-allotment transactions involve sales by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase. This creates a syndicate short position that may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriters may close out any short position by exercising their option to purchase additional shares of common stock and/or warrants to purchase common stock and/or purchasing shares in the open market.

Syndicate covering transactions involve purchases of shares in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared with the price at which they may purchase shares through exercise of the over-allotment option. If the underwriters sell more shares than could be covered by exercise of the over-allotment option and, therefore, have a naked short position, the position can be closed out only by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that after pricing there could be downward pressure on the price of the shares in the open market that could adversely affect investors who purchase in the offering.

Penalty bids permit the representative to reclaim a selling concession from a syndicate member when the shares originally sold by that syndicate member are purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our shares or common stock or preventing or retarding a decline in the market price of our shares or common stock. As a result, the price of our common stock in the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on The Nasdaq Capital Market, in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

Passive market making

In connection with this offering, underwriters and selling group members may engage in passive market making transactions in our common stock on The Nasdaq Capital Market in accordance with Rule 103 of Regulation M under the Exchange Act, during a period before the commencement of offers or sales of the shares and extending through the completion of the distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, then that bid must then be lowered when specified purchase limits are exceeded.

Certain Relationships

The underwriters and their affiliates have provided, or may in the future provide, various investment banking, commercial banking, financial advisory, brokerage, and other services to us and our affiliates for which services they have received, and may in the future receive, customary fees and expense reimbursement.

The underwriters and their affiliates may, from time to time, engage in transactions with and perform services for us in the ordinary course of their business for which they may receive customary fees and reimbursement of expenses. In the ordinary course of their various business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own accounts and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of our company. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Offer Restrictions Outside the United States

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for us by Loeb & Loeb LLP, New York, New York. The underwriters are being represented by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., New York, New York.

EXPERTS

The financial statements as of December 31, 2017 and 2016 and for each of the two years in the period ended December 31, 2017 incorporated by reference in this Prospectus and in the Registration Statement have been so incorporated in reliance on the report of OUM, LLP, an independent registered public accounting firm (the report on the financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern), incorporated by reference in this Prospectus and in the Registration Statement, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the Securities and Exchange Commission a registration statement on Form S-1 under the Securities Act with respect to the securities offered by this prospectus. This prospectus, which is part of the registration statement, omits certain information, exhibits, schedules and undertakings set forth in the registration statement. For further information pertaining to us and the securities offered hereby, reference is made to the registration statement and the exhibits and schedules to the registration statement. Statements contained in this prospectus as to the contents or provisions of any documents referred to in this prospectus are not necessarily complete, and in each instance where a copy of the document has been filed as an exhibit to the registration statement, reference is made to the exhibit for a more complete description of the matters involved.

You may read and copy all or any portion of the registration statement without charge at the public reference room of the Securities and Exchange Commission at 100 F Street, N.E., Washington, D.C. 20549. Copies of the registration statement may be obtained from the Securities and Exchange Commission at prescribed rates from the public reference room of the Securities and Exchange Commission at such address. You may obtain information regarding the operation of the public reference room by calling 1-800-SEC-0330. In addition, registration statements and certain other filings made with the Securities and Exchange Commission electronically are publicly available through the Securities and Exchange Commission's website at www.sec.gov. The registration statement, including all exhibits and amendments to the registration statement, has been filed electronically with the Securities and Exchange Commission. You may also read all or any portion of the registration statement and certain other filings made with the Securities and Exchange Commission on our website at www.heatbio.com. The information contained in, and that can be accessed through, our website is not incorporated into and is not part of this prospectus.

We are subject to the information and periodic reporting requirements of the Exchange Act and, accordingly, are required to file annual reports containing financial statements audited by an independent public accounting firm, quarterly reports containing unaudited financial data, current reports, proxy statements and other information with the Securities and Exchange Commission. You will be able to inspect and copy such periodic reports, proxy statements and other information at the Securities and Exchange Commission's public reference room, the website of the Securities and Exchange Commission referred to above, and our website at www.titanpharm.com. Except for the specific incorporated reports and documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus or the registration statement of which it forms a part.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

We "incorporate by reference" certain documents we have filed with the SEC, which means that we are disclosing important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus, and any information contained in any document incorporated by reference in this prospectus will be deemed to be modified or superseded to the extent that a statement contained in this prospectus or free writing prospectus provided to you in connection with this offering modified or supersedes the original statement. Any statement so modified or

superseded will not be deemed, except as so modified or superseded, to be a part of this prospectus. The later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (Commission File No. 001-13341) after (i) the date of this initial registration statement and prior to effectiveness of this registration statement and (ii) the date of this prospectus and before the completion of the offering of the securities included in this prospectus, however, we will not incorporate by reference any documents or portions thereof that are not deemed "filed" with the SEC, or any information furnished pursuant to Items 2.02 or 7.01 of Form 8-K or related exhibits furnished pursuant to Item 9.01 of Form 8-K:

- Our Annual Report on Form 10-K for the year ended December 31, 2017 filed on April 2, 2018;
- Our Quarterly Report on Form 10-Q, filed on May 15, 2018;
- Our Quarterly Report on Form 10-Q, filed on August 14, 2018;
- Our Current Report on Form 8-K filed on January 22, 2018;
- Our Current Report on Form 8-K filed on February 7, 2018;
- Our Current Report on Form 8-K filed on March 26, 2018;
- Our Current Report on Form 8-K filed on April 13, 2018;
- Our Current Report on Form 8-K filed on May 16, 2018;
- Our Current Report on Form 8-K filed on May 30, 2018;
- Our Current Report on Form 8-K filed on June 1, 2018;
- Our Current Report on Form 8-K filed on July 31, 2018;
- Our Current Report on Form 8-K filed on August 3, 2018;
- Our Current Report on Form 8-K filed on August 8, 2018;
- Our Current Report on Form 8-K filed on August 17, 2018;
- Our Definitive Proxy Statement on Schedule 14A filed with the SEC on July 2, 2018; and
- The description of the our common stock set forth in the Registration Statement on Form 8-A12B filed on October 8, 2015.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, a copy of any or all of the reports or documents that we incorporate by reference in this prospectus contained in the registration statement (except exhibits to the documents that are not specifically incorporated by reference) at no cost to you, by writing or calling us at the following address and telephone number:

Titan Pharmaceuticals, Inc.
400 Oyster Point Blvd., Suite 505
South San Francisco, California 94080
(650) 244-4990

Information about us is available at our website at www.titanpharm.com. Except for the specific incorporated reports and documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus or the registration statement of which it forms a part.

3,000,000 Class A Units
Consisting of Common Stock and Warrants
and
12,750 Class B Units
Consisting of Series A Convertible Preferred Stock and Warrants

PROSPECTUS

A.G.P.

CIM Securities, LLC

, 2018

Through and including , 2018 (25 days after commencement of this offering), all dealers that effect transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to their unsold allotments or subscriptions.

PART II — INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

We estimate that expenses in connection with the distribution described in this registration statement (other than fees and commissions charged by the underwriters) will be as set forth below. We will pay all of the expenses with respect to the distribution, and such amounts, with the exception of the SEC registration fee and the Financial Industry Regulatory Authority, Inc., or FINRA, filing fee, are estimates.

SEC registration fee	$ 3,572.06
FINRA filing fee	4,803.69
Accounting fees and expenses	30,000.00
Printing fees	10,000.00
Legal fees and expenses	160,000.00
Underwriters' out-of-pocket expenses	120,000.00
Transfer agent and warrant agent fees	2,500.00
Miscellaneous expenses	9,124.25
Total	$340,000.00

Item 14. Indemnification of Directors and Officers

Subsection (a) of Section 145 of the General Corporation Law of the State of Delaware, or DGCL, empowers a corporation to indemnify any person who was or is a party or who is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful.

Subsection (b) of Section 145 empowers a corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that the person acted in any of the capacities set forth above, against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 145 further provides that to the extent a director or officer of a corporation has been successful on the merits or otherwise in the defense of any action, suit or proceeding referred to in subsections (a) and (b) of Section 145, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith; that indemnification provided for by Section 145 shall not be deemed exclusive of any other rights to which the indemnified party may be entitled; and the indemnification provided for by Section 145 shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of such person's heirs, executors and administrators. Section 145 also empowers the corporation to purchase and maintain insurance on behalf

of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of his status as such, whether or not the corporation would have the power to indemnify such person against such liabilities under Section 145.

Section 102(b)(7) of the DGCL provides that a corporation's certificate of incorporation may contain a provision eliminating or limiting the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, provided that such provision shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL, or (iv) for any transaction from which the director derived an improper personal benefit.

Our certificate of incorporation and our bylaws provide that we will indemnify our directors and officers to the fullest extent permitted by the DGCL, which prohibits our certificate of incorporation from limiting the liability of our directors for the following:

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

Our amended and restated certificate of incorporation provides for indemnification of our directors and executive officers to the maximum extent permitted by the DGCL, and our amended and restated bylaws provide for indemnification of our directors and executive officers to the maximum extent permitted by the DGCL.

We have entered into indemnification agreements with each of our current directors. These agreements will require us to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to us and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified. We also intend to enter into indemnification agreements with our future directors and executive officers.

In any underwriting agreement we enter into in connection with the sale of common stock and pre-funded warrants being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us, within the meaning of the Securities Act, against certain liabilities.

Item 15. Recent Sales of Unregistered Securities

The following information sets forth certain information with respect to all securities which we have sold during the last three years.

Item 16. Exhibits

Exhibit No.	Description
1.1*	Form of Underwriting Agreement between Titan Pharmaceuticals, Inc. and A.G.P./Alliance Global Partners
3.1.1	Amended and Restated Certificate of Incorporation of the Registrant, as amended(5)
3.1.2	Certificate of Amendment to the Restated Certificate of Incorporation dated September 24, 2015(14)
3.2	By-laws of the Registrant(1)
3.3	Form of Certificate of Designation of Series A Convertible Preferred Stock
4.1	Form of 2014 Class A Warrant(13)

Exhibit No.	Description
4.3	Form of 2014 Underwriter Warrant[13]
4.4	Form of Lender Warrant[18]
4.5	Form of Rights Agreement Warrant[20]
4.6*	Form of Warrant Agency Agreement between Titan Pharmaceuticals, Inc. and Continental Stock Transfer & Trust Company and Form of Offering Warrant
4.7	Form of Representative's Purchase Warrant
5.1*	Opinion of Loeb & Loeb LLP
10.1	2001 Non-Qualified Employee Stock Option Plan[2]
10.2	2002 Stock Option Plan[3]
10.3	Lease for the Registrant's facilities, amended as of October 1, 2004[4]
10.4	Amendments to lease for Registrant's facilities dated May 21, 2007 and March 12, 2009[5]
10.5	Amendment to lease for Registrant's facilities dated June 15, 2010[6]
10.6±	License Agreement by and between Titan Pharmaceuticals, Inc. and Braeburn Pharmaceuticals Sprl, dated December 14, 2012[8]
10.7	Amendment dated May 28, 2013 to License Agreement by and between Titan Pharmaceuticals, Inc. and Braeburn Pharmaceuticals Sprl[9]
10.8	Second Amendment dated July 2, 2013 to License Agreement by and between Titan Pharmaceuticals, Inc. and Braeburn Pharmaceuticals Sprl[10]
10.9	Third Amendment dated November 12, 2013 to License Agreement by and between Titan Pharmaceuticals, Inc. and Braeburn Pharmaceuticals Sprl[15]
10.10	Titan Pharmaceuticals, Inc. 2014 Incentive Plan[12]
10.11	Titan Pharmaceuticals, Inc. Second Amended and Restated 2015 Omnibus Equity Incentive Plan[22]
10.12	Controlled Equity Offering[SM] Sales Agreement, dated September 1, 2016, between Titan Pharmaceuticals, Inc. and Cantor Fitzgerald & Co.[16]
10.13	Employment Agreement between Titan Pharmaceuticals, Inc. and Titan Pharmaceuticals, Inc. and Sunil Bhonsle[17]
10.14	Employment Agreement between Titan Pharmaceuticals, Inc. and Titan Pharmaceuticals, Inc. and Marc Rubin[17]
10.15	Venture Loan and Security Agreement, dated July 27, 2017, by and between Titan Pharmaceuticals, Inc. and Horizon Technology Finance Corporation[18]
10.16	Amendment of Venture Loan and Security Agreement, dated February 2, 2018, by and between Titan Pharmaceuticals, Inc. and Horizon Technology Finance Corporation[19]
10.17	Amended and Restated Venture Loan and Security Agreement, dated March 21, 2018, by and between Titan Pharmaceuticals, Inc., Horizon Technology Finance Corporation and L. Molteni & C. Dei Frattelli Alitti Società Di Esercizio S.P.A.[20]
10.18±	Asset Purchase, Supply and Support Agreement dated March 21, 2018, by and between Titan Pharmaceuticals, Inc. and L. Molteni & C. Dei Frattelli Alitti Società Di Esercizio S.P.A.[20]
10.19	Rights Agreement dated March 21, 2018, by and between Titan Pharmaceuticals, Inc. and L. Molteni & C. Dei Frattelli Alitti Società Di Esercizio S.P.A.[20]
10.20±	Termination and Transition Services Agreement dated May 25, 2018 by and between Titan Pharmaceuticals, Inc. and Braeburn Pharmaceuticals, Inc.[21]
10.21±±	Amendment to Asset Purchase, Supply and Support Agreement dated August 3, 2018, by and between Titan Pharmaceuticals, Inc. and L. Molteni & C. Dei Frattelli Alitti Società Di Esercizio S.P.A[22]
10.22±±	Distribution and Sublicense Agreement dated February 1, 2016 as amended by agreement dated August 2, 2018 between Titan Pharmaceuticals, Inc. and Knight Therapeutics Inc.[23]
10.23	Amendment to lease for Registrant's facility dated March 21, 2016[23]
10.24	Amendment to Employment Agreement with Sunil Bhonsle dated August 9, 2018[23]
10.25	Amendment to Employment Agreement with Marc Rubin dated August 9, 2018[23]
14.1	Code of Business Conduct and Ethics[13]

Exhibit No.	Description
23.1	Consent of OUM & Co., LLP, Independent Registered Public Accounting Firm
23.2*	Consent of Loeb & Loeb LLP (contained in Exhibit 5.1)
24.1**	Power of Attorney (included on the signature page of this Registration Statement)

* To be filed by amendment.

** Previously filed.

± Confidential treatment has been granted as to certain portions of this exhibit.

±± Confidential treatment has been requested as to certain portions of this exhibit.

(1) Incorporated by reference from the Registrant's Registration Statement on Form S-3 (File No. 333-21126).

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

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

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

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

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

(7) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on April 10, 2012.

(8) Incorporated by reference from the Registrant's Current Report on Form 8-K/A filed on February 28, 2013.

(9) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on May 29, 2013.

(10) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on July 5, 2013.

(11) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on November 13, 2013.

(12) Incorporated by reference from the Registrant's Annual Report on Form 10-K for the year ended December 31, 2013.

(13) Incorporated by reference from the Registrant's Registration Statement on Form S-1/A dated September 30, 2014.

(14) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on September 28, 2015.

(15) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on August 3, 2016.

(16) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on September 1, 2016.

(17) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on October 3, 2016.

(18) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on July 27, 2017.

(19) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on February 7, 2018.

(20) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on March 26, 2018.

(21) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on May 30, 2018.

(22) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on August 3, 2018.

(23) Incorporated by reference from the Registrant's Quarterly Report on Form 10-Q for the period ended June 30, 2018.

ITEM 17. UNDERTAKINGS

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933 (the "Securities Act");

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that Paragraphs (a)(1)(i), (ii), and (iii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser: If the registrant is subject to Rule 430C (§230.430C of this chapter), each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A (§230.430A of this chapter), shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the

underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424 (§230.424 of this chapter);

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) The undersigned registrant hereby undertakes to supplement the prospectus, after the expiration of the subscription period, to set forth the results of the subscription offer, the transactions by the underwriters during the subscription period, the amount of unsubscribed securities to be purchased by the underwriters, and the terms of any subsequent reoffering thereof. If any public offering by the underwriters is to be made on terms differing from those set forth on the cover page of the prospectus, a post-effective amendment will be filed to set forth the terms of such offering.

(d) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Company pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(e) For the purpose of determining any liability under the Securities Act, the registrant will treat the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant under Rule 424(b)(1), or (4), or 497(h) under the Securities Act as part of this registration statement as of the time the Commission declared it effective.

(f) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Registration Statement on Form S-1 or amendment thereto to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of South San Francisco, State of California, this August 30, 2018.

TITAN PHARMACEUTICALS, INC.

By: /s/ Sunil Bhonsle

Name: Sunil Bhonsle

Title: Chief Executive Officer and President

Pursuant to the requirements of the Securities Act of 1933, as amended, this report has been signed by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Marc Rubin, M.D Marc Rubin, M.D.	Executive Chairman	August 30, 2018
/s/ Sunil Bhonsle Sunil Bhonsle	President, Chief Executive Officer and Director (principal executive officer and principal financial officer)	August 30, 2018
* Joseph A. Akers	Director	August 30, 2018
* Rajinder Kumar, Ph.D.	Director	August 30, 2018
* M. David MacFarlane, Ph.D.	Director	August 30, 2018
* James R. McNab, Jr.	Director	August 30, 2018
* Federico Seghi Recli	Director	August 30, 2018
* Scott A. Smith	Director	August 30, 2018
/s/ Brian E. Crowley Brian E. Crowley	Vice President, Finance (principal accounting officer)	August 30, 2018

*By: /s/ Sunil Bhonsle
Sunil Bhonsle
Attorney-in-fact

Exhibit 3.3

TITAN PHARMACEUTICALS, INC.

CERTIFICATE OF DESIGNATION OF PREFERENCES,

RIGHTS AND LIMITATIONS

OF

SERIES A CONVERTIBLE PREFERRED STOCK

PURSUANT TO SECTION 151 OF THE

DELAWARE GENERAL CORPORATION LAW

The undersigned, Sunil Bhonsle, does hereby certify that:

1. He is the Chief Executive Officer of Titan Pharmaceuticals, Inc., a Delaware corporation (the "**Corporation**").

2. The Corporation is authorized to issue 5,000,000 shares of preferred stock.

3. The following resolutions were duly adopted by the board of directors of the Corporation (the "**Board of Directors**"):

WHEREAS, the Amended and Restated Certificate of Incorporation of the Corporation, as amended, provides for a class of its authorized capital stock known as preferred stock, consisting of 5,000,000 shares, $0.001 par value per share, issuable from time to time in one or more series;

WHEREAS, the Board of Directors is authorized to provide for the issuance of the shares of preferred stock in series and to establish, from time to time, the number of shares to be included in each such series, and to fix the designation, powers, preferences and rights of the shares of each such series and any qualifications, limitations or restrictions thereon; and

WHEREAS, it is the desire of the Board of Directors, pursuant to its authority as aforesaid, to fix the rights, preferences, restrictions and other matters relating to a series of the preferred stock, which shall consist of, except as set forth in the Underwriting Agreement, up to _____ shares of the preferred stock which the Corporation has the authority to issue;

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors does hereby provide for the issuance of a series of preferred stock to be designated the "Series A Preferred Stock" for cash or exchange of other securities, rights or property and does hereby fix and determine the number, rights, preferences, restrictions and other matters relating to such series of preferred stock as follows:

TERMS OF PREFERRED STOCK

Section 1. Definitions. For the purposes hereof, the following terms shall have the following meanings:

"**Affiliate**" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 of the Securities Act.

"**Alternate Consideration**" shall have the meaning set forth in Section 7(d).

"**Beneficial Ownership Limitation**" shall have the meaning set forth in Section 6(d).

"**Business Day**" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

"**Buy-In**" shall have the meaning set forth in Section 6(c)(iv).

"**Commission**" means the United States Securities and Exchange Commission.

"**Common Stock**" means the Corporation's common stock, par value $0.001 per share, and stock of any other class of securities into which such securities may hereafter be reclassified or changed.

"**Common Stock Equivalents**" means any securities of the Corporation or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

"**Conversion Amount**" means the sum of the Stated Value at issue.

"**Conversion Date**" shall have the meaning set forth in Section 6(a).

"**Conversion Price**" shall have the meaning set forth in Section 6(b).

"**Conversion Shares**" means, collectively, the shares of Common Stock issuable upon conversion of the shares of Preferred Stock in accordance with the terms hereof.

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

"**Fundamental Transaction**" shall have the meaning set forth in Section 7(d).

"**GAAP**" means United States generally accepted accounting principles.

"**Holder**" shall have the meaning set forth in Section 2.

"**Liquidation**" shall have the meaning set forth in Section 5.

"**New York Courts**" shall have the meaning set forth in Section 8(d).

"**Notice of Conversion**" shall have the meaning set forth in Section 6(a).

"**Original Issue Date**" means the date of the first issuance of any shares of the Preferred Stock regardless of the number of transfers of any particular shares of Preferred Stock and regardless of the number of certificates which may be issued to evidence such Preferred Stock.

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

"**Preferred Stock**" shall have the meaning set forth in Section 2.

"**Representative**" means A.G.P./Alliance Global Partners.

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

"**Share Delivery Date**" shall have the meaning set forth in Section 6(c).

"**Stated Value**" shall have the meaning set forth in Section 2, as the same may be increased pursuant to Section 3.

"**Subsidiary**" means any subsidiary of the Corporation and shall, where applicable, also include any direct or indirect subsidiary of the Corporation formed or acquired after the date hereof.

"**Successor Entity**" shall have the meaning set forth in Section 7(d).

"**Trading Day**" means a day on which the principal Trading Market is open for business.

"**Trading Market**" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the NYSE MKT or the New York Stock Exchange (or any successors to any of the foregoing).

"**Transfer Agent**" means Continental Stock Transfer & Trust Company, the current transfer agent of the Corporation, with a mailing address of 1 State Street, 30th Floor, New York, NY 10004-1561 and an email address of cstmail@continentalstock.com and any successor transfer agent of the Corporation.

"**Underwriting Agreement**" means the underwriting agreement, dated as of _____ __, 2018, among the Corporation and the Representative as representative of the underwriters named therein, as amended, modified or supplemented from time to time in accordance with its terms.

Section 2. Designation, Amount and Par Value. The series of preferred stock shall be designated as the Series A Convertible Preferred Stock (the "Preferred Stock") and the number of shares so designated shall be up to _____ (which shall not be subject to increase without the written consent of a majority of the holders of the Preferred Stock (each, a "Holder" and collectively, the "Holders")). Each share of Preferred Stock shall have a par value of $0.001 per share and a stated value equal to $1,000 (the "Stated Value").

Section 3. Dividends. Except for stock dividends or distributions for which adjustments are to be made pursuant to Section 7, Holders shall be entitled to receive, and the Corporation shall pay, dividends on shares of Preferred Stock equal (on an as-if-converted-to-Common-Stock basis, without regard to conversion limitations herein) to and in the same form as dividends actually paid on shares of the Common Stock when, as and if such dividends are paid on shares of the Common Stock. No other dividends shall be paid on shares of Preferred Stock. The Corporation shall not pay any dividends on the Common Stock unless the Corporation simultaneously complies with this provision.

Section 4. Voting Rights. Except as otherwise provided herein or as otherwise required by law, the Preferred Stock shall have no voting rights. However, as long as any shares of Preferred Stock are outstanding, the Corporation shall not, without the affirmative vote of the Holders of a majority of the then outstanding shares of the Preferred Stock, (a) alter or change adversely the powers, preferences or rights given to the Preferred Stock or alter or amend this Certificate of Designation, (b) amend its certificate of incorporation or other charter documents in any manner that adversely affects any rights of the Holders, (c) increase the number of authorized shares of Preferred Stock, or (d) enter into any agreement with respect to any of the foregoing.

Section 5. Liquidation. Upon any liquidation, dissolution or winding-up of the Corporation, whether voluntary or involuntary (a "Liquidation"), the Holders shall be entitled to receive out of the assets, whether capital or surplus, of the Corporation the same amount that a holder of Common Stock would receive if the Preferred Stock were fully converted (disregarding for such purposes any conversion limitations hereunder) to Common Stock which amounts shall be paid pari passu with all holders of Common Stock. The Corporation shall mail written notice of any such Liquidation, not less than 45 days prior to the payment date stated therein, to each Holder.

Section 6. Conversion.

a) Conversions at Option of Holder. Each share of Preferred Stock shall be convertible, at any time and from time to time from and after the Original Issue Date at the option of the Holder thereof, into that number of shares of Common Stock (subject to the limitations set forth in Section 6(d)) determined by dividing the Stated Value of such share of Preferred Stock by the Conversion Price. Holders shall effect conversions by providing the Corporation with the form of conversion notice attached hereto as Annex A (a "Notice of Conversion"). Each Notice of Conversion shall specify the number of shares of Preferred Stock to be converted, the number of shares of Preferred Stock owned prior to the conversion at issue, the number of shares of Preferred Stock owned subsequent to the conversion at issue and the date on which such conversion is to be effected, which date may not be prior to the date the applicable Holder delivers by facsimile such Notice of Conversion to the Corporation (such date, the "Conversion Date"). If no Conversion Date is specified in a Notice of Conversion, the Conversion Date shall be the date that such Notice of Conversion to the Corporation is deemed delivered hereunder. No ink-original Notice of Conversion shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Conversion form be required. The calculations and entries set forth in the Notice of Conversion shall control in the absence of manifest or mathematical error. To effect conversions of shares of Preferred Stock, a Holder shall not be required to surrender the certificate(s) representing the shares of Preferred Stock to the Corporation unless all of the shares of Preferred Stock represented thereby are so converted, in which case such Holder shall deliver the certificate representing such shares of Preferred Stock promptly following the Conversion Date at issue. Shares of Preferred Stock converted into Common Stock or redeemed in accordance with the terms hereof shall be canceled and shall not be reissued.

b) Conversion Price. The conversion price for the Preferred Stock shall equal $___, subject to adjustment herein (the "Conversion Price").

c) Mechanics of Conversion.

i. Delivery of Conversion Shares Upon Conversion. Not later than the earlier of (i) three (3) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined below) after each Conversion Date (the "Share Delivery Date"), the Corporation shall deliver, or cause to be delivered, to the converting Holder (A) the number of Conversion Shares being acquired upon the conversion of the Preferred Stock, which Conversion Shares shall be free of restrictive legends and trading restrictions and (B) a bank check in the amount of accrued and unpaid dividends, if any. The Corporation shall use its best efforts to deliver the Conversion Shares required to be delivered by the Corporation under this Section 6 electronically through the Depository Trust Company ("DTC") or another established clearing corporation performing similar functions. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Corporation's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Conversion. Notwithstanding the foregoing, with respect to any Notice(s) of Conversion delivered by 12:00 pm (NY time) on the Original Issue Date, the Corporation agrees to deliver the Conversion Shares subject to such notice(s) by 4:00 pm (NY time) on the Original Issue Date.

ii. Failure to Deliver Conversion Shares. If, in the case of any Notice of Conversion, such Conversion Shares are not delivered to or as directed by the applicable Holder by the Share Delivery Date, the Holder shall be entitled to elect by written notice to the Corporation at any time on or before its receipt of such Conversion Shares, to rescind such Conversion, in which event the Corporation shall promptly return to the Holder any original Preferred Stock certificate delivered to the Corporation and the Holder shall promptly return to the Corporation the Conversion Shares issued to such Holder pursuant to the rescinded Notice of Conversion.

iii. Obligation Absolute; Partial Liquidated Damages. The Corporation's obligation to issue and deliver the Conversion Shares upon conversion of Preferred Stock in accordance with the terms hereof are absolute and unconditional, irrespective of any action or inaction by a Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by such Holder or any other Person of any obligation to the Corporation or any violation or alleged violation of law by such Holder or any other person, and irrespective of any other circumstance which might otherwise limit such obligation of the Corporation to such Holder in connection with the issuance of such Conversion Shares; provided, however, that such delivery shall not operate as a waiver by the Corporation of any such action that the Corporation may have against such Holder. If the Corporation fails to deliver to a Holder such Conversion Shares pursuant to Section 6(c)(i) by the Share Delivery Date applicable to such conversion, the Corporation shall pay to such Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Stated Value of Preferred Stock being converted, $10 per Trading Day for each Trading Day after the Share Delivery Date until such Conversion Shares are delivered or Holder rescinds such conversion. Nothing herein shall limit a Holder's right to pursue actual damages for the Corporation's failure to deliver Conversion Shares within the period specified herein and such Holder shall have the right to pursue all remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief. The exercise of any such rights shall not prohibit a Holder from seeking to enforce damages pursuant to any other Section hereof or under applicable law.

iv. Compensation for Buy-In on Failure to Timely Deliver Conversion Shares Upon Conversion. In addition to any other rights available to the Holder, if the Corporation fails for any reason to deliver to a Holder the applicable Conversion Shares by the Share Delivery Date pursuant to Section 6(c)(i), and if after such Share Delivery Date such Holder is required by its brokerage firm to purchase (in an open market transaction or otherwise), or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by such Holder of the Conversion Shares which such Holder was entitled to receive upon the conversion relating to such Share Delivery Date (a "Buy-In"), then the Corporation shall (A) pay in cash to such Holder (in addition to any other remedies available to or elected by such Holder) the amount, if any, by which (x) such Holder's total purchase price (including any brokerage commissions) for the Common Stock so purchased exceeds (y) the product of (1) the aggregate number of shares of Common Stock that such Holder was entitled to receive from the conversion at issue multiplied by (2) the actual sale price at which the sell order giving rise to such purchase obligation was executed (including any brokerage commissions) and (B) at the option of such Holder, either reissue (if surrendered) the shares of Preferred Stock equal to the number of shares of Preferred Stock submitted for conversion (in which case, such conversion shall be deemed rescinded) or deliver to such Holder the number of shares of Common Stock that would have been issued if the Corporation had timely complied with its delivery requirements under Section 6(c)(i). For example, if a Holder purchases shares of Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted conversion of shares of Preferred Stock with respect to which the actual sale price of the Conversion Shares (including any brokerage commissions) giving rise to such purchase obligation was a total of $10,000 under clause (A) of the immediately preceding sentence, the Corporation shall be required to pay such Holder $1,000. The Holder shall provide the Corporation written notice indicating the amounts payable to such Holder in respect of the Buy-In and, upon request of the Corporation, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Corporation's failure to timely deliver Conversion Shares upon conversion of the shares of Preferred Stock as required pursuant to the terms hereof.

v. Reservation of Shares Issuable Upon Conversion. The Corporation covenants that it will at all times reserve and keep available out of its authorized and unissued shares of Common Stock for the sole purpose of issuance upon conversion of the Preferred Stock as herein provided, free from preemptive rights or any other actual contingent purchase rights of Persons other than the Holder (and the other holders of the Preferred Stock), not less than such aggregate number of shares of the Common Stock as shall be issuable (taking into account the adjustments and restrictions of Section 7) upon the conversion of the then outstanding shares of Preferred Stock. The Corporation covenants that all shares of Common Stock that shall be so issuable shall, upon issue, be duly authorized, validly issued, fully paid and nonassessable.

vi. Fractional Shares. No fractional shares or scrip representing fractional shares shall be issued upon the conversion of the Preferred Stock. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such conversion, the Corporation shall at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Conversion Price or round up to the next whole share.

vii. Transfer Taxes and Expenses. The issuance of Conversion Shares on conversion of this Preferred Stock shall be made without charge to any Holder for any documentary stamp or similar taxes that may be payable in respect of the issue or delivery of such Conversion Shares, provided that the Corporation shall not be required to pay any tax that may be payable in respect of any transfer involved in the issuance and delivery of any such Conversion Shares upon conversion in a name other than that of the Holders of such shares of Preferred Stock and the Corporation shall not be required to issue or deliver such Conversion Shares unless or until the Person or Persons requesting the issuance thereof shall have paid to the Corporation the amount of such tax or shall have established to the satisfaction of the Corporation that such tax has been paid. The Corporation shall pay all Transfer Agent fees required for same-day processing of any Notice of Conversion and all fees to the DTC (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Conversion Shares.

d) Beneficial Ownership Limitation. Notwithstanding anything to the contrary herein, the Corporation shall not effect any conversion of the Preferred Stock, and a Holder shall not have the right to convert any portion of the Preferred Stock, to the extent that, after giving effect to the conversion set forth on the applicable Notice of Conversion, such Holder (together with such Holder's Affiliates, and any Persons acting as a group together with such Holder or any of such Holder's Affiliates (such Persons, "Attribution Parties")) would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by such Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon conversion of the Preferred Stock with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which are issuable upon (i) conversion of the remaining, unconverted Stated Value of Preferred Stock beneficially owned by such Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation subject to a limitation on conversion or exercise analogous to the limitation contained herein (including, without limitation, the Preferred Stock) beneficially owned by such Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 6(d), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. To the extent that the limitation contained in this Section 6(d) applies, the determination of whether the Preferred Stock is convertible (in relation to other securities owned by such Holder together with any Affiliates and Attribution Parties) and of how many shares of Preferred Stock are convertible shall be in the sole discretion of such Holder, and the submission of a Notice of Conversion shall be deemed to be such Holder's determination of whether the shares of Preferred Stock may be converted (in relation to other securities owned by such Holder together with any Affiliates and Attribution Parties) and how many shares of the Preferred Stock are convertible, in each case subject to the Beneficial Ownership Limitation. To ensure compliance with this restriction, each Holder will be deemed to represent to the Corporation each time it delivers a Notice of Conversion that such conversion will not violate the restrictions set forth in this paragraph and the Corporation shall have no obligation to verify or confirm the accuracy of such representation. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 6(d), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as stated in the most recent of the following: (i) the Corporation's most recent periodic or annual report filed with the Commission, as the case may be, (ii) a more recent public announcement by the Corporation or (iii) a more recent written notice by the Corporation or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request (which may be via email) of a Holder, the Corporation shall within two Trading Days confirm orally and in writing to such Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Corporation, including the Preferred Stock, by such Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (except as otherwise specified or provided for in the Beneficial Ownership Limitation Adjustment Notice (as defined below)) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon conversion of Preferred Stock held by the applicable Holder. A Holder may increase or decrease the Beneficial Ownership Limitation applicable to its Preferred Stock by providing not less than 61 days' prior written notice to the Company (which notice may not be waived) in the form attached hereto as Annex B (the "Beneficial Ownership Limitation Adjustment Notice"); provided that the Beneficial Ownership Limitation in no event may exceed 19.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon conversion of this Preferred Stock held by the Holder and the provisions of this Section 6(d) shall continue to apply; and provided further that a Holder's who fails to specify a Beneficial Ownership Limitation in a Beneficial Ownership Limitation Adjustment Notice shall be deemed to have specified a Beneficial Ownership Limitation of 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon conversion of Preferred Stock held by the applicable Holder and a Holder who specifies a Beneficial Ownership Limitation in a Beneficial Ownership Limitation Adjustment Notice in excess of 19.99% shall be deemed to have specified a Beneficial Ownership Limitation of 19.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon conversion of Preferred Stock held by the applicable Holder. Any such increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such Beneficial Ownership Limitation Adjustment Notice is delivered to the Corporation and shall only apply to such Holder and no other Holder. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 6(d) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation contained herein or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of Preferred Stock.

Section 7. Certain Adjustments.

a) Stock Dividends and Stock Splits. If the Corporation, at any time while this Preferred Stock is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions payable in shares of Common Stock on shares of Common Stock or any other Common Stock Equivalents (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Corporation upon conversion of, or payment of a dividend on, this Preferred Stock), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of a reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues, in the event of a reclassification of shares of the Common Stock, any shares of capital stock of the Corporation, then the Conversion Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding any treasury shares of the Corporation) outstanding immediately before such event, and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event. Any adjustment made pursuant to this Section 7(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 7(a) above, if at any time the Corporation grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete conversion of such Holder's Preferred Stock (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

c) Pro Rata Distributions. During such time as this Preferred Stock is outstanding, if the Corporation declares or makes any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Preferred Stock, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete conversion of this Preferred Stock (without regard to any limitations on conversion hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Fundamental Transaction. If, at any time while any shares of Preferred Stock are outstanding, (i) the Corporation, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Corporation with or into another Person, (ii) the Corporation, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Corporation or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Corporation, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Corporation, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent conversion of the Preferred Stock by the Holder thereof, the Holder shall receive, for each Conversion Share that would have been issuable upon such conversion immediately prior to the occurrence of such Fundamental Transaction (without regard to any limitation in Section 6(d) on the conversion of the Preferred Stock), the number of shares of common stock (as applicable) of the successor or acquiring corporation or the number of shares of Common Stock of the Corporation (as applicable), if it is the surviving corporation, and all additional securities (equity or debt), cash, property or other consideration (all such additional consideration, the "Alternate Consideration"), receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which such Holder's Preferred Stock is convertible immediately prior to such Fundamental Transaction (without regard to any limitation in Section 6(d) on the conversion of the Preferred Stock). For purposes of any such conversion, the determination of the Conversion Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Corporation shall apportion the Conversion Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are entitled to elect the proportion of securities, cash, property or other consideration to be received by holders of Common Stock in a Fundamental Transaction, then each Holder of Preferred Stock shall be given the same choice as to the proportion of securities, cash, property or other consideration such Holder is entitled to receive upon any conversion of such Holder's shares of Preferred Stock following such Fundamental Transaction. To the extent necessary to effectuate the foregoing provisions, any successor to the Corporation or surviving entity in such Fundamental Transaction shall file a new Certificate of Designation in respect of a new series of preferred stock of the successor or acquiring corporation, or the Corporation, if it is the surviving corporation, setting forth the same rights, preferences, privileges and other terms contained in this Certificate of Designation in respect of the Preferred Stock, including, without limitation, the provisions contained in this Section 7(d) and evidencing, among other things, the Holders' right to convert such new preferred stock into Alternate Consideration. The Corporation shall cause any successor entity in a Fundamental Transaction in which the Corporation is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Corporation under this Certificate of Designation in accordance with the provisions of this Section 7(d) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of a Holder of Preferred Stock, deliver to such Holder in exchange for such Holder's Preferred Stock a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to the Preferred Stock which is convertible for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon conversion of the Preferred Stock (without regard to any limitations on the conversion of the Preferred Stock) prior to such Fundamental Transaction, and with a conversion price which applies the conversion price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such conversion price being for the purpose of protecting the economic value of the Preferred Stock immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder(s) thereof. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Certificate of Designation referring to the "Corporation" shall refer instead to the Successor Entity), and may exercise every right and power of the Corporation and shall assume all of the obligations of the Corporation under this Certificate of Designation with the same effect as if such Successor Entity had been named as the Corporation herein. For the avoidance of doubt, if, at any time while any shares of Preferred Stock are outstanding, a Fundamental Transaction occurs, pursuant to the terms of this Section 7(d), a Holder of Preferred Stock shall not be entitled to receive any consideration in such Fundamental Transaction in respect of such Holder's shares of Preferred Stock, except as provided for in this Certificate of Designation (or any new Certificate of Designation in respect of a new series of preferred stock issued to the Holders of Preferred Stock as contemplated hereby

e) Calculations. All calculations under this Section 7 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 7, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding any treasury shares of the Corporation) issued and outstanding.

f) Notice to the Holders.

i. Adjustment to Conversion Price. Whenever the Conversion Price is adjusted pursuant to any provision of this Section 7, the Corporation shall promptly deliver to each Holder a notice setting forth the Conversion Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Conversion by Holder. If (A) the Corporation shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Corporation shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Corporation shall authorize the granting to all holders of the Common Stock of rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Corporation shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Corporation is a party, any sale or transfer of all or substantially all of the assets of the Corporation, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property or (E) the Corporation shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Corporation, then, in each case, the Corporation shall cause to be filed at each office or agency maintained for the purpose of conversion of this Preferred Stock, and shall cause to be delivered to each Holder at its last address as it shall appear upon the stock books of the Corporation, at least fifteen (15) calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange, provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Corporation or any of the Subsidiaries, the Corporation shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to convert the Conversion Amount of this Preferred Stock (or any part hereof) during the 15-day period commencing on the date of such notice through the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 8. Miscellaneous.

a) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Conversion, shall be in writing and delivered personally, by facsimile, or sent by a nationally recognized overnight courier service, addressed to the Corporation at:

Titan Pharmaceuticals, Inc.
400 Oyster Point Blvd., Suite 505
South San Francisco, CA 94080
Attention: Sunil Bhonsle
Facsimile: (650) _____
with a copy (which shall not constitute notice) to:

Loeb & Loeb LLP
345 Park Avenue, #18
New York, NY 10154
Attention: Fran Stoller
Facsimile: (212) 407-4990

or such other facsimile number or address as the Corporation may specify for such purposes by notice to the Holders delivered in accordance with this Section 8. Any and all notices or other communications or deliveries to be provided by the Corporation hereunder shall be in writing and delivered personally, by facsimile, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number or address of such Holder appearing on the books of the Corporation, or if no such facsimile number or address appears on the books of the Corporation, at the principal place of business of such Holder. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the Person to whom such notice is required to be given. Notwithstanding any other provision of this Certificate of Designation, where this Certificate of Designation provides for notice of any event to a Holder, if the Preferred Stock is held in global form by DTC (or any successor depositary), such notice may be delivered via DTC (or such successor depositary) pursuant to the procedures of DTC (or such successor depositary).

b) Absolute Obligation. Except as expressly provided herein, no provision of this Certificate of Designation shall alter or impair the obligation of the Corporation, which is absolute and unconditional, to pay liquidated damages and accrued dividends, as applicable, on the shares of Preferred Stock at the time, place, and rate, and in the coin or currency, herein prescribed.

c) Lost or Mutilated Preferred Stock Certificate. If a Holder's Preferred Stock certificate shall be mutilated, lost, stolen or destroyed, the Corporation shall execute and deliver, in exchange and substitution for and upon cancellation of a mutilated certificate, or in lieu of or in substitution for a lost, stolen or destroyed certificate, a new certificate for the shares of Preferred Stock so mutilated, lost, stolen or destroyed, but only upon receipt of evidence of such loss, theft or destruction of such certificate, and of the ownership hereof reasonably satisfactory to the Corporation.

d) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Certificate of Designation shall be governed by and construed and enforced in accordance with the internal laws of the State of Delaware, without regard to the principles of conflict of laws thereof. Each of the Corporation and each Holder agrees that all legal proceedings concerning the interpretation, enforcement and defense of the transactions contemplated by this Certificate of Designation (whether brought against the Corporation, a Holder or any of their respective Affiliates, directors, officers, shareholders, employees or agents) shall be commenced in the state and federal courts sitting in the City of New York, Borough of Manhattan (the "New York Courts"). Each of the Corporation and each Holder hereby irrevocably submits to the exclusive jurisdiction of the New York Courts for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of such New York Courts, or such New York Courts are improper or inconvenient venue for such proceeding. Each of the Corporation and each Holder hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such Person at the address in effect for notices to it under this Certificate of Designation and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by applicable law. Each of the Corporation and each Holder hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Certificate of Designation or the transactions contemplated hereby. If the Corporation or any Holder shall commence an action or proceeding to enforce any provisions of this Certificate of Designation, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its attorneys' fees and other costs and expenses incurred in the investigation, preparation and prosecution of such action or proceeding.

e) Waiver. Any waiver by the Corporation or a Holder of a breach of any provision of this Certificate of Designation shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Certificate of Designation or a waiver by any other Holders. The failure of the Corporation or a Holder to insist upon strict adherence to any term of this Certificate of Designation on one or more occasions shall not be considered a waiver or deprive that Person (or any other Holder) of the right thereafter to insist upon strict adherence to that term or any other term of this Certificate of Designation on any other occasion. Any waiver by the Corporation or a Holder must be in writing.

f) Severability. If any provision of this Certificate of Designation is invalid, illegal or unenforceable, the balance of this Certificate of Designation shall remain in effect, and if any provision is inapplicable to any Person or circumstance, it shall nevertheless remain applicable to all other Persons and circumstances. If it shall be found that any interest or other amount deemed interest due hereunder violates the applicable law governing usury, the applicable rate of interest due hereunder shall automatically be lowered to equal the maximum rate of interest permitted under applicable law.

g) Next Business Day. Whenever any payment or other obligation hereunder shall be due on a day other than a Business Day, such payment shall be made on the next succeeding Business Day.

h) Headings. The headings contained herein are for convenience only, do not constitute a part of this Certificate of Designation and shall not be deemed to limit or affect any of the provisions hereof.

i) Status of Converted or Redeemed Preferred Stock. If any shares of Preferred Stock shall be converted, redeemed or reacquired by the Corporation, such shares shall resume the status of authorized but unissued shares of preferred stock and shall no longer be designated as Series A Convertible Preferred Stock.

****

RESOLVED, FURTHER, that the executive chairman, the president or any vice-president, and the secretary or any assistant secretary, of the Corporation be and they hereby are authorized and directed to prepare and file this Certificate of Designation of Preferences, Rights and Limitations in accordance with the foregoing resolution and the provisions of Delaware law.

IN WITNESS WHEREOF, the undersigned have executed this Certificate this ___ day of _____, 2018.

TITAN PHARMACEUTICALS, INC.

By: _____
Name: Sunil Bhonsle
Title: Chief Executive Officer

ANNEX A

NOTICE OF CONVERSION

(TO BE EXECUTED BY THE REGISTERED HOLDER IN ORDER TO CONVERT SHARES OF PREFERRED STOCK)

The undersigned hereby elects to convert the number of shares of Series A Convertible Preferred Stock indicated below into shares of common stock, par value $0.001 per share (the "**Common Stock**"), of Titan Pharmaceuticals, Inc., a Delaware corporation (the "**Corporation**"), according to the conditions hereof, as of the date written below. If shares of Common Stock are to be issued in the name of a Person other than the undersigned, the undersigned will pay all transfer taxes payable with respect thereto. No fee will be charged to the Holders for any conversion, except for any such transfer taxes.

Conversion calculations:

Date to Effect Conversion: _____

Number of shares of Preferred Stock owned prior to Conversion: _____

Number of shares of Preferred Stock to be Converted: _____

Stated Value of shares of Preferred Stock to be Converted: _____

Number of shares of Common Stock to be Issued: _____

Applicable Conversion Price: _____

Number of shares of Preferred Stock subsequent to Conversion: _____

Address for Delivery: _____

or

DWAC Instructions:

Broker no: _____

Account no: _____

[HOLDER]

By: _____
Name:
Title:

ANNEX B

BENEFICIAL OWNERSHIP LIMITATION ADJUSTMENT NOTICE

(TO BE EXECUTED BY THE REGISTERED HOLDER IN ORDER TO INCREASE OR DECREASE THE BENEFICIAL OWNERSHIP LIMITATION APPLICABLE TO SUCH HOLDER'S PREFERRED STOCK)

By checking the box below, the undersigned hereby irrevocably elects to waive the 4.99% Beneficial Ownership Limitation, as designated by the undersigned's election below, applicable to the undersigned's beneficial ownership of Series A Convertible Preferred Stock of Titan Pharmaceuticals, Inc., a Delaware corporation, as such Beneficial Ownership Limitation is defined under Section 6(d) of the Certificate of Designation.

- The undersigned hereby elects to waive the 4.99% Beneficial Ownership Limitation applicable to the undersigned's beneficial ownership of Series A Redeemable Convertible Preferred Stock.

The Beneficial Ownership Limitation applicable to the undersigned's Series A Convertible Preferred Stock (effective as of the date that is 62 days following the date of this Beneficial Ownership Limitation Adjustment Notice) shall be:

_____% (may not be more than 19.99%)

* Notice: Failure to specify a Beneficial Ownership Limitation percentage above will result in the undersigned's being deemed to have specified a Beneficial Ownership Limitation of 9.99%. Specifying a Beneficial Ownership Limitation percentage in excess of 19.99% will result in the undersigned's being deemed to have specified a Beneficial Ownership Limitation of 19.99%.

The undersigned understands and agrees that, as a result of this waiver, the Beneficial Ownership Limitation applicable to the Series A Convertible Preferred Stock beneficially owned by the undersigned shall be (i) the percentage specified by the undersigned above, (ii) 9.99% or (iii) 19.99%, and, in each case, the provisions of Section 6(d) of the Certificate of Designation shall continue to apply.

The undersigned understands and agrees that by waiving the Beneficial Ownership Limitation, the undersigned may become subject to the reporting requirements and liability provisions of Sections 13 and 16 of the Securities Exchange Act of 1934.

[HOLDER]

By: _____
Name:
Title:

Exhibit 4.7

THE REGISTERED HOLDER OF THIS PURCHASE WARRANT BY ITS ACCEPTANCE HEREOF, AGREES THAT IT WILL NOT SELL, TRANSFER OR ASSIGN THIS PURCHASE WARRANT EXCEPT AS HEREIN PROVIDED AND THE REGISTERED HOLDER OF THIS PURCHASE WARRANT AGREES THAT IT WILL NOT SELL, TRANSFER, ASSIGN, PLEDGE OR HYPOTHECATE THIS PURCHASE WARRANT FOR A PERIOD OF ONE HUNDRED EIGHTY DAYS FOLLOWING THE EFFECTIVE DATE (DEFINED BELOW) TO ANYONE OTHER THAN (I) A.G.P./ALLIANCE GLOBAL PARTNERS OR AN UNDERWRITER OR A SELECTED DEALER IN CONNECTION WITH THE OFFERING, OR (II) A BONA FIDE OFFICER OR PARTNER OF A.G.P./ALLIANCE GLOBAL PARTNERS OR OF ANY SUCH UNDERWRITER OR SELECTED DEALER.

THIS PURCHASE WARRANT IS NOT EXERCISABLE PRIOR TO [_____] [**DATE THAT IS ONE YEAR FROM THE EFFECTIVE DATE OF THE OFFERING**]. VOID AFTER 5:00 P.M., EASTERN TIME, [_____] [**DATE THAT IS 5 YEARS FROM THE EFFECTIVE DATE OF THE OFFERING**].

COMMON STOCK PURCHASE WARRANT

For the Purchase of [_____] Shares of Common Stock
of
TITAN PHARMACEUTICALS, INC.

1 . Purchase Warrant. THIS CERTIFIES THAT, for value received by Titan Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), A.G.P./Alliance Global Partners ("**Holder**"), as registered owner of this Purchase Warrant, is entitled, at any time or from time to time from [_____] [**DATE THAT IS ONE YEAR FROM THE EFFECTIVE DATE OF THE OFFERING**] (the "**Commencement Date**"), and at or before 5:00 p.m., Eastern time, [_____] [**DATE THAT IS 5 YEARS FROM THE EFFECTIVE DATE OF THE OFFERING**] (the "**Expiration Date**"), but not thereafter, to subscribe for, purchase and receive, in whole or in part, up to [____] shares of common stock of the Company, par value $0.001 per share (the "**Shares**"), subject to adjustment as provided in Section 6 hereof. If the Expiration Date is a day on which banking institutions are authorized by law to close, then this Purchase Warrant may be exercised on the next succeeding day which is not such a day in accordance with the terms herein. During the period ending on the Expiration Date, the Company agrees not to take any action that would terminate this Purchase Warrant. This Purchase Warrant is initially exercisable at $[___] per Share [**110% of the price of the Shares sold in the Offering**]; provided, however, that upon the occurrence of any of the events specified in Section 6 hereof, the rights granted by this Purchase Warrant, including the exercise price per Share and the number of Shares to be received upon such exercise, shall be adjusted as therein specified. The term "**Exercise Price**" shall mean the initial exercise price or the adjusted exercise price, depending on the context.

2. Exercise.

2.1 Exercise Form. In order to exercise this Purchase Warrant, the exercise form attached hereto must be duly executed and completed and delivered to the Company, together with this Purchase Warrant and payment of the Exercise Price for the Shares being purchased payable in cash by wire transfer of immediately available funds to an account designated by the Company or by certified check or official bank check. If the subscription rights represented hereby shall not be exercised at or before 5:00 p.m., Eastern Time, on the Expiration Date, this Purchase Warrant shall become and be void without further force or effect, and all rights represented hereby shall cease and expire.

2.2 Cashless Exercise. If at any time after the Commencement Date there is no effective registration statement registering, or no current prospectus available for, the resale of the Shares by the Holder, then in lieu of exercising this Purchase Warrant by payment of cash or check payable to the order of the Company pursuant to Section 2.1 above, Holder may elect to receive the number of Shares equal to the value of this Purchase Warrant (or the portion thereof being exercised), by surrender of this Purchase Warrant to the Company, together with the exercise form attached hereto, in which event the issue to Holder, Shares in accordance with the following formula:

$$X = \frac{Y(A-B)}{A}$$

Where,

X = The number of Shares to be issued to Holder;

Y = The number of Shares for which the Purchase Warrant is being exercised;

A = The fair market value of one Share; and

B = The Exercise Price.

For purposes of this Section 2.2, the fair market value of a Share is defined as follows:

(i) if the Company's common stock is traded on a securities exchange, the value shall be deemed to be the closing price on such exchange prior to the exercise form being submitted in connection with the exercise of the Purchase Warrant; or

(ii) if the Company's common stock is actively traded over-the-counter, the value shall be deemed to be the closing bid prior to the exercise form being submitted in connection with the exercise of the Purchase Warrant; if there is no active public market, the value shall be the fair market value thereof, as determined in good faith by the Company's Board of Directors.

If Warrant Shares are issued in such a "cashless exercise," the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised, and the holding period of the Warrants being exercised may be tacked on to the holding period of the Warrant Shares. The Company agrees not to take any position contrary to this Section 2.2.

2.3 Legend. Each certificate for the securities purchased under this Purchase Warrant shall bear a legend as follows unless such securities have been registered under the Securities Act of 1933, as amended (the "**Act**"):

"The securities represented by this certificate have not been registered under the Securities Act of 1933, as amended (the "**Act**"), or applicable state law. Neither the securities nor any interest therein may be offered for sale, sold or otherwise transferred except pursuant to an effective registration statement under the Securities Act, or pursuant to an exemption from registration under the Securities Act and applicable state law which, in the opinion of counsel to the Company, is available."

3. Transfer.

3.1 General Restrictions. The registered Holder of this Purchase Warrant agrees by his, her or its acceptance hereof, that such Holder will not: (a) sell, transfer, assign, pledge or hypothecate this Purchase Warrant for a period of one hundred eighty (180) days following the Effective Date to anyone other than: (i) A.G.P./Alliance Global Partners (" **A.G.P.**") or an underwriter or a selected dealer participating in the Offering, or (ii) a bona fide officer or partner of A.G.P. or of any such underwriter or selected dealer, in each case in accordance with FINRA Conduct Rule 5110(g)(1), or (b) cause this Purchase Warrant or the securities issuable hereunder to be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of this Purchase Warrant or the securities hereunder, except as provided for in FINRA Rule 5110(g)(2). On and after 180 days after the Effective Date, transfers to others may be made subject to compliance with or exemptions from applicable securities laws. In order to make any permitted assignment, the Holder must deliver to the Company the assignment form attached hereto duly executed and completed, together with the Purchase Warrant and payment of all transfer taxes, if any, payable in connection therewith. The Company shall within five (5) Business Days transfer this Purchase Warrant on the books of the Company and shall execute and deliver a new Purchase Warrant or Purchase Warrants of like tenor to the appropriate assignee(s) expressly evidencing the right to purchase the aggregate number of Shares purchasable hereunder or such portion of such number as shall be contemplated by any such assignment.

3.2 Restrictions Imposed by the Securities Act. The securities evidenced by this Purchase Warrant shall not be transferred unless and until: (i) the Company has received the opinion of counsel for the Holder that the securities may be transferred pursuant to an exemption from registration under the Securities Act and applicable state securities laws, the availability of which is established to the reasonable satisfaction of the Company (the Company hereby agreeing that the opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. shall be deemed satisfactory evidence of the availability of an exemption), or (ii) a registration statement or a post-effective amendment to the Registration Statement relating to the offer and sale of such securities has been filed by the Company and declared effective by the U.S. Securities and Exchange Commission (the "**Commission**") and compliance with applicable state securities law has been established.

4. Registration Rights.

4.1 Demand Registration.

4.1.1 Grant of Right. The Company, upon written demand (a "**Demand Notice**") of the Holder(s) of at least 51% of the Purchase Warrants and/or the underlying Shares ("**Majority Holders**"), agrees to register, on one occasion, all or any portion of the Shares underlying the Purchase Warrants (collectively, the " **Registrable Securities**"). On such occasion, the Company will file a registration statement with the Commission covering the Registrable Securities within thirty (30) days after receipt of a Demand Notice and use its reasonable best efforts to have the registration statement declared effective promptly thereafter, subject to compliance with review by the Commission; provided, however, that if the Demand Notice is issued within 50 days prior to the beginning of the Company's fiscal year, the 30 day period shall be extended until 80 days after the last day of the prior fiscal year; and provided further that the Company shall not be required to comply with a Demand Notice if the Company has filed a registration statement with respect to which the Holder is entitled to piggyback registration rights pursuant to Section 4.2 hereof and the Holder has elected to participate in the offering covered by such registration statement. The demand for registration may be made at any time during a period of four (4) years beginning on the Commencement Date. The Company covenants and agrees to give written notice of its receipt of any Demand Notice by any Holder(s) to all other registered Holders of the Purchase Warrants and/or the Registrable Securities within ten (10) days after the date of the receipt of any such Demand Notice.

4.1.2 Terms. The Company shall bear all fees and expenses attendant to the registration of the Registrable Securities pursuant to Section 4.1.1, but the Holders shall pay any and all underwriting commissions and the expenses of any legal counsel selected by the Holders to represent them in connection with the sale of the Registrable Securities. The Company agrees to use its reasonable best efforts to cause the filing required herein to become effective promptly and to qualify or register the Registrable Securities in such States as are reasonably requested by the Holder(s); provided, however, that in no event shall the Company be required to register the Registrable Securities in a State in which such registration would cause: (i) the Company to be obligated to register or license to do business in such State or submit to general service of process in such State, or (ii) the principal shareholders of the Company to be obligated to escrow their shares of capital stock of the Company. The Company shall cause any registration statement filed pursuant to the demand right granted under Section 4.1.1 to remain effective for a period of at least twelve (12) consecutive months after the date that the Holders of the Registrable Securities covered by such registration statement are first given the opportunity to sell all of such securities. The Holders shall only use the prospectuses provided by the Company to sell the shares covered by such registration statement, and will immediately cease to use any prospectus furnished by the Company if the Company advises the Holder that such prospectus may no longer be used due to a material misstatement or omission. Notwithstanding the provisions of this Section 4.1.2, the Holder shall be entitled to a demand registration under this Section 4.1.2 on only one (1) occasion and such demand registration right shall terminate on the fifth anniversary of the effectiveness of the registration statement in accordance with FINRA Rule 5110(f)(2)(H)(iv).

4.2 "Piggy-Back" Registration.

4.2.1 Grant of Right. In addition to the demand right of registration described in Section 4.1 hereof, the Holder shall have the right, for a period of no more than seven (7) years from the date of effectiveness of the registration statement in accordance with FINRA Rule 5110(f)(2)(H)(v), to include the Registrable Securities as part of any other registration of securities filed by the Company (other than in connection with a transaction contemplated by Rule 145(a) promulgated under the Securities Act or pursuant to Form S-8 or any equivalent form); provided, however, that if, solely in connection with any primary underwritten public offering for the account of the Company, the managing underwriter(s) thereof shall, in its reasonable discretion, impose a limitation on the number of shares of Common Stock which may be included in the Registration Statement because, in such underwriter(s)' judgment, marketing or other factors dictate such limitation is necessary to facilitate public distribution, then the Company shall be obligated to include in such Registration Statement only such limited portion of the Registrable Securities with respect to which the Holder requested inclusion hereunder as the underwriter shall reasonably permit. Any exclusion of Registrable Securities shall be made pro rata among the Holders seeking to include Registrable Securities in proportion to the number of Registrable Securities sought to be included by such Holders; provided, however, that the Company shall not exclude any Registrable Securities unless the Company has first excluded all outstanding securities, the holders of which are not entitled to inclusion of such securities in such Registration Statement or are not entitled to pro rata inclusion with the Registrable Securities.

4.2.2 Terms. The Company shall bear all fees and expenses attendant to registering the Registrable Securities pursuant to Section 4.2.1 hereof, but the Holders shall pay any and all underwriting commissions and the expenses of any legal counsel selected by the Holders to represent them in connection with the sale of the Registrable Securities. In the event of such a proposed registration, the Company shall furnish the then Holders of outstanding Registrable Securities with not less than thirty (30) days written notice prior to the proposed date of filing of such registration statement. Such notice to the Holders shall continue to be given for each registration statement filed by the Company until such time as all of the Registrable Securities have been sold by the Holder. The holders of the Registrable Securities shall exercise the "piggy-back" rights provided for herein by giving written notice within ten (10) days of the receipt of the Company's notice of its intention to file a registration statement. Except as otherwise provided in this Purchase Warrant, there shall be no limit on the number of times the Holder may request registration under this Section 4.2.2; provided, however, that such registration rights shall terminate on the sixth anniversary of the Commencement Date.

4.3 General Terms.

4.3.1 Indemnification. The Company shall indemnify the Holder(s) of the Registrable Securities to be sold pursuant to any registration statement hereunder and each person, if any, who controls such Holders within the meaning of Section 15 of the Securities Act or Section 20 (a) of the Securities Exchange Act of 1934, as amended ("**Exchange Act**"), against all loss, claim, damage, expense or liability (including all reasonable attorneys' fees and other expenses reasonably incurred in investigating, preparing or defending against any claim whatsoever) to which any of them may become subject under the Securities Act, the Exchange Act or otherwise, arising from such registration statement but only to the same extent and with the same effect as the provisions pursuant to which the Company has agreed to indemnify the Underwriters contained in Section 5.1 of the Underwriting Agreement between the A.G.P. as representative of the Underwriters listed therein and the Company, dated as of September [____], 2018. The Holder(s) of the Registrable Securities to be sold pursuant to such registration statement, and their successors and assigns, shall severally, and not jointly, indemnify the Company, against all loss, claim, damage, expense or liability (including all reasonable attorneys' fees and other expenses reasonably incurred in investigating, preparing or defending against any claim whatsoever) to which they may become subject under the Securities Act, the Exchange Act or otherwise, arising from information furnished by or on behalf of such Holders, or their successors or assigns, in writing, for specific inclusion in such registration statement to the same extent and with the same effect as the provisions contained in Section 5.2 of the Underwriting Agreement pursuant to which the Underwriters have agreed to indemnify the Company.

4.3.2 Exercise of Purchase Warrants. Nothing contained in this Purchase Warrant shall be construed as requiring the Holder(s) to exercise their Purchase Warrants prior to or after the initial filing of any registration statement or the effectiveness thereof.

4.3.3 Documents Delivered to Holders. The Company shall furnish to each Holder participating in any of the foregoing offerings and to each underwriter of any such offering, if any, a signed counterpart, addressed to such Holder or underwriter, of: (i) an opinion of counsel to the Company, dated the effective date of such registration statement (and, if such registration includes an underwritten public offering, an opinion dated the date of the closing under any underwriting agreement related thereto), and (ii) a "cold comfort" letter dated the effective date of such registration statement (and, if such registration includes an underwritten public offering, a letter dated the date of the closing under the underwriting agreement) signed by the independent registered public accounting firm which

has issued a report on the Company's financial statements included in such registration statement, in each case covering substantially the same matters with respect to such registration statement (and the prospectus included therein) and, in the case of such accountants' letter, with respect to events subsequent to the date of such financial statements, as are customarily covered in opinions of issuer's counsel and in accountants' letters delivered to underwriters in underwritten public offerings of securities. The Company shall also deliver promptly to each Holder participating in the offering requesting the correspondence and memoranda described below and to the managing underwriter, if any, copies of all correspondence between the Commission and the Company, its counsel or auditors and all memoranda relating to discussions with the Commission or its staff with respect to the registration statement and permit each Holder and underwriter to do such investigation, upon reasonable advance notice, with respect to information contained in or omitted from the registration statement as it deems reasonably necessary to comply with applicable securities laws or rules of FINRA. Such investigation shall include access to books, records and properties and opportunities to discuss the business of the Company with its officers and independent auditors, all to such reasonable extent and at such reasonable times as any such Holder shall reasonably request.

4 . 3 . 4 Underwriting Agreement. The Company shall enter into an underwriting agreement with the managing underwriter(s), if any, selected by any Holders whose Registrable Securities are being registered pursuant to this Section 4, which managing underwriter shall be reasonably satisfactory to the Company. Such agreement shall be reasonably satisfactory in form and substance to the Company, each Holder and such managing underwriters, and shall contain such representations, warranties and covenants by the Company and such other terms as are customarily contained in agreements of that type used by the managing underwriter. The Holders shall be parties to any underwriting agreement relating to an underwritten sale of their Registrable Securities and may, at their option, require that any or all the representations, warranties and covenants of the Company to or for the benefit of such underwriters shall also be made to and for the benefit of such Holders. Such Holders shall not be required to make any representations or warranties to or agreements with the Company or the underwriters except as they may relate to such Holders, their Shares and their intended methods of distribution.

4.3.5 Documents to be Delivered by Holder(s). Each of the Holder(s) participating in any of the foregoing offerings shall furnish to the Company a completed and executed questionnaire provided by the Company requesting information customarily sought of selling security holders.

4 . 3 . 6 Damages. Should the registration or the effectiveness thereof required by Sections 4.1 and 4.2 hereof be delayed by the Company or the Company otherwise fails to comply with such provisions, the Holder(s) shall, in addition to any other legal or other relief available to the Holder(s), be entitled to obtain specific performance or other equitable (including injunctive) relief against the threatened breach of such provisions or the continuation of any such breach, without the necessity of proving actual damages and without the necessity of posting bond or other security.

5. New Purchase Warrants to be Issued.

5 . 1 Partial Exercise or Transfer. Subject to the restrictions in Section 3 hereof, this Purchase Warrant may be exercised or assigned in whole or in part. In the event of the exercise or assignment hereof in part only, upon surrender of this Purchase Warrant for cancellation, together with the duly executed exercise or assignment form and funds sufficient to pay any Exercise Price and/or transfer tax if exercised pursuant to Section 2.1 hereto, the Company shall cause to be delivered to the Holder without charge a new Purchase Warrant of like tenor to this Purchase Warrant in the name of the Holder evidencing the right of the Holder to purchase the number of Shares purchasable hereunder as to which this Purchase Warrant has not been exercised or assigned.

5.2 Lost Certificate. Upon receipt by the Company of evidence satisfactory to it of the loss, theft, destruction or mutilation of this Purchase Warrant and of reasonably satisfactory indemnification or the posting of a bond, the Company shall execute and deliver a new Purchase Warrant of like tenor and date. Any such new Purchase Warrant executed and delivered as a result of such loss, theft, mutilation or destruction shall constitute a substitute contractual obligation on the part of the Company.

6. Adjustments.

6.1 Adjustments to Exercise Price and Number of Securities. The Exercise Price and the number of Shares underlying the Purchase Warrant shall be subject to adjustment from time to time as hereinafter set forth:

6.1.1 Share Dividends; Split Ups. If, after the date hereof, and subject to the provisions of Section 6.3 below, the number of outstanding Shares is increased by a stock dividend payable in Shares or by a split up of Shares or other similar event, then, on the effective day thereof, the number of Shares purchasable hereunder shall be increased in proportion to such increase in outstanding Shares, and the Exercise Price shall be proportionately decreased.

6.1.2 Aggregation of Shares. If, after the date hereof, and subject to the provisions of Section 6.3 below, the number of outstanding Shares is decreased by a consolidation, combination or reclassification of Shares or other similar event, then, on the effective date thereof, the number of Shares purchasable hereunder shall be decreased in proportion to such decrease in outstanding Shares, and the Exercise Price shall be proportionately increased.

6.1.3 Replacement of Securities upon Reorganization, etc. In case of any reclassification or reorganization of the outstanding Shares other than a change covered by Section 6.1.1 or 6.1.2 hereof or that solely affects the par value of such Shares, or in the case of any share reconstruction or amalgamation or consolidation of the Company with or into another corporation (other than a consolidation or share reconstruction or amalgamation in which the Company is the continuing corporation and that does not result in any reclassification or reorganization of the outstanding Shares), or in the case of any sale or conveyance to another corporation or entity of the property of the Company as an entirety or substantially as an entirety in connection with which the Company is dissolved, the Holder of this Purchase Warrant shall have the right thereafter (until the expiration of the right of exercise of this Purchase Warrant) to receive upon the exercise hereof, for the same aggregate Exercise Price payable hereunder immediately prior to such event, the kind and amount of shares of stock or other securities or property (including cash) receivable upon such reclassification, reorganization, share reconstruction or amalgamation, or consolidation, or upon a dissolution following any such sale or transfer, by a Holder of the number of Shares of the Company obtainable upon exercise of this Purchase Warrant immediately prior to such event; and if any reclassification also results in a change in Shares covered by Section 6.1.1 or 6.1.2, then such adjustment shall be made pursuant to Sections 6.1.1, 6.1.2 and this Section 6.1.3. The provisions of this Section 6.1.3 shall similarly apply to successive reclassifications, reorganizations, share reconstructions or amalgamations, or consolidations, sales or other transfers.

6.1.4 Changes in Form of Purchase Warrant. This form of Purchase Warrant need not be changed because of any change pursuant to this Section 6.1, and Purchase Warrants issued after such change may state the same Exercise Price and the same number of Shares as are stated in the Purchase Warrants initially issued pursuant to this Agreement. The acceptance by any Holder of the issuance of new Purchase Warrants reflecting a required or permissive change shall not be deemed to waive any rights to an adjustment occurring after the Commencement Date or the computation thereof.

6.2 Substitute Purchase Warrant. In case of any consolidation of the Company with, or share reconstruction or amalgamation of the Company with or into, another corporation (other than a consolidation or share reconstruction or amalgamation which does not result in any reclassification or change of the outstanding Shares), the corporation formed by such consolidation or share reconstruction or amalgamation shall execute and deliver to the Holder a supplemental Purchase Warrant providing that the holder of each Purchase Warrant then outstanding or to be outstanding shall have the right thereafter (until the stated expiration of such Purchase Warrant) to receive, upon exercise of such Purchase Warrant, the kind and amount of shares of stock and other securities and property receivable upon such consolidation or share reconstruction or amalgamation, by a holder of the number of Shares of the Company for which such Purchase Warrant might have been exercised immediately prior to such consolidation, share reconstruction or amalgamation, sale or transfer. Such supplemental Purchase Warrant shall provide for adjustments which shall be identical to the adjustments provided for in this Section 6. The above provision of this Section shall similarly apply to successive consolidations or share reconstructions or amalgamations.

6.3 Elimination of Fractional Interests. The Company shall not be required to issue certificates representing fractions of Shares upon the exercise of the Purchase Warrant, nor shall it be required to issue scrip or pay cash in lieu of any fractional interests, it being the intent of the parties that all fractional interests shall be eliminated by rounding any fraction up or down, as the case may be, to the nearest whole number of Shares or other securities, properties or rights.

7. Reservation and Listing. The Company shall at all times reserve and keep available out of its authorized Shares, solely for the purpose of issuance upon exercise of the Purchase Warrants, such number of Shares or other securities, properties or rights as shall be issuable upon the exercise thereof. The Company covenants and agrees that, upon exercise of the Purchase Warrants and payment of the Exercise Price therefor, in accordance with the terms hereby, all Shares and other securities issuable upon such exercise shall be duly and validly issued, fully paid and non-assessable and not subject to preemptive rights of any shareholder. The Company further covenants and agrees that upon exercise of the Purchase Warrants and payment of the exercise price therefor, all Shares and other securities issuable upon such exercise shall be duly and validly issued, fully paid and non-assessable and not subject to preemptive rights of any shareholder. As long as the Purchase Warrants shall be outstanding, the Company shall use its commercially reasonable efforts to cause all Shares issuable upon exercise of the Purchase Warrants to be listed (subject to official notice of issuance) on all national securities exchanges (or, if applicable, on the OTCQB, OTCQX, OTC PINK or any successor trading market) on which the Shares issued to the public in the Offering may then be listed and/or quoted.

8. Certain Notice Requirements.

8.1 Holder's Right to Receive Notice. Nothing herein shall be construed as conferring upon the Holders the right to vote or consent or to receive notice as a shareholder for the election of directors or any other matter, or as having any rights whatsoever as a shareholder of the Company. If, however, at any time prior to the expiration of the Purchase Warrants and their exercise, any of the events described in Section 8.2 shall occur, then, in one or more of said events, the Company shall give written notice of such event at least fifteen days prior to the date fixed as a record date or the date of closing the transfer books for the determination of the shareholders entitled to such dividend, distribution, conversion or exchange of securities or subscription rights, or entitled to vote on such proposed dissolution, liquidation, winding up or sale. Such notice shall specify such record date or the date of the closing of the transfer books, as the case may be. Notwithstanding the foregoing, the Company shall deliver to each Holder a copy of each notice given to the other shareholders of the Company at the same time and in the same manner that such notice is given to the shareholders.

8.2 Events Requiring Notice. The Company shall be required to give the notice described in this Section 8 upon one or more of the following events: (i) if the Company shall take a record of the holders of its Shares for the purpose of entitling them to receive a dividend or distribution payable otherwise than in cash, or a cash dividend or distribution payable otherwise than out of retained earnings, as indicated by the accounting treatment of such dividend or distribution on the books of the Company, (ii) the Company shall offer to all the holders of its Shares any additional shares of capital stock of the Company or securities convertible into or exchangeable for shares of capital stock of the Company, or any option, right or warrant to subscribe therefor, or (iii) a dissolution, liquidation or winding up of the Company (other than in connection with a consolidation or share reconstruction or amalgamation) or a sale of all or substantially all of its property, assets and business shall be proposed.

8.3 Notice of Change in Exercise Price. The Company shall, promptly after an event requiring a change in the Exercise Price pursuant to Section 6 hereof, send notice to the Holders of such event and change ("**Price Notice**"). The Price Notice shall describe the event causing the change and the method of calculating same and shall be certified as being true and accurate by the Company's Chief Financial Officer.

8.4 Transmittal of Notices. All notices, requests, consents and other communications under this Purchase Warrant shall be in writing and shall be deemed to have been duly made when hand delivered, or mailed by express mail or private courier service: (i) if to the registered Holder of the Purchase Warrant, to the address of such Holder as shown on the books of the Company, or (ii) if to the Company, to following address or to such other address as the Company may designate by notice to the Holders:

If to the Holder:

A.G.P./Alliance Global Partners
590 Madison Avenue, 36th Floor
New York, New York 10022
Attn: Mr. Thomas Higgins, Managing Director, Investment Banking
Email: thiggins@Allianceg.com

with a copy (which shall not constitute notice) to:

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
666 Third Avenue
New York, NY 10017
Attn: Anthony J. Marsico, Esq.
Email: AJMarsico@mintz.com

If to the Company:

Titan Pharmaceuticals, Inc.
400 Oyster Point Blvd., Suite 505
South San Francisco, California 94080
Attention: Sunil Bhonsle, Chief Executive Officer
Email: SBhonsle@titanpharm.com

with a copy (which shall not constitute notice) to:
Loeb & Loeb LLP
345 Park Avenue
New York, New York 10154
Attention: Fran Stoller, Esq.
Email: fstoller@loeb.com

9. Miscellaneous.

9.1 Amendments. The Company and A.G.P. may from time to time supplement or amend this Purchase Warrant without the approval of any of the Holders in order to cure any ambiguity, to correct or supplement any provision contained herein that may be defective or inconsistent with any other provisions herein, or to make any other provisions in regard to matters or questions arising hereunder that the Company and A.G.P. may deem necessary or desirable and that the Company and A.G.P. deem shall not adversely affect the interest of the Holders. All other modifications or amendments shall require the written consent of and be signed by the party against whom enforcement of the modification or amendment is sought.

9.2 Headings. The headings contained herein are for the sole purpose of convenience of reference, and shall not in any way limit or affect the meaning or interpretation of any of the terms or provisions of this Purchase Warrant.

9.3. Entire Agreement. This Purchase Warrant (together with the other agreements and documents being delivered pursuant to or in connection with this Purchase Warrant) constitutes the entire agreement of the parties hereto with respect to the subject matter hereof, and supersedes all prior agreements and understandings of the parties, oral and written, with respect to the subject matter hereof.

9.4 Binding Effect. This Purchase Warrant shall inure solely to the benefit of and shall be binding upon, the Holder and the Company and their permitted assignees, respective successors, legal representative and assigns, and no other person shall have or be construed to have any legal or equitable right, remedy or claim under or in respect of or by virtue of this Purchase Warrant or any provisions herein contained.

9.5 Governing Law; Submission to Jurisdiction; Trial by Jury. This Purchase Warrant shall be governed by and construed and enforced in accordance with the laws of the State of New York, without giving effect to conflict of laws principles thereof. The Company hereby agrees that any action, proceeding or claim against it arising out of, or relating in any way to this Purchase Warrant shall be brought and enforced in the New York Supreme Court, County of New York, or in the United States District Court for the Southern District of New York, and irrevocably submits to such jurisdiction, which jurisdiction shall be exclusive. The Company hereby waives any objection to such exclusive jurisdiction and that such courts represent an inconvenient forum. Any process or summons to be served upon the Company may be served by transmitting a copy thereof by registered or certified mail, return receipt requested, postage prepaid, addressed to it at the address set forth in Section 8 hereof. Such mailing shall be deemed personal service and shall be legal and binding upon the Company in any action, proceeding or claim. The Company and the Holder agree that the prevailing party(ies) in any such action shall be entitled to recover from the other party(ies) all of its reasonable attorneys' fees and expenses relating to such action or proceeding and/or incurred in connection with the preparation therefor. The Company (on its behalf and, to the extent permitted by applicable law, on behalf of its stockholders and affiliates) and the Holder hereby irrevocably waive, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

9.6 Waiver, etc. The failure of the Company or the Holder to at any time enforce any of the provisions of this Purchase Warrant shall not be deemed or construed to be a waiver of any such provision, nor to in any way affect the validity of this Purchase Warrant or any provision hereof or the right of the Company or any Holder to thereafter enforce each and every provision of this Purchase Warrant. No waiver of any breach, non-compliance or non-fulfillment of any of the provisions of this Purchase Warrant shall be effective unless set forth in a written instrument executed by the party or parties against whom or which enforcement of such waiver is sought; and no waiver of any such breach, non-compliance or non-fulfillment shall be construed or deemed to be a waiver of any other or subsequent breach, non-compliance or non-fulfillment.

9.7 Execution in Counterparts. This Purchase Warrant may be executed in one or more counterparts, and by the different parties hereto in separate counterparts, each of which shall be deemed to be an original, but all of which taken together shall constitute one and the same agreement, and shall become effective when one or more counterparts has been signed by each of the parties hereto and delivered to each of the other parties hereto. Such counterparts may be delivered by facsimile transmission or other electronic transmission.

9.8 Exchange Agreement. As a condition of the Holder's receipt and acceptance of this Purchase Warrant, Holder agrees that, at any time prior to the complete exercise of this Purchase Warrant by Holder, if the Company and A.G.P. enter into an agreement ("**Exchange Agreement**") pursuant to which they agree that all outstanding Purchase Warrants will be exchanged for securities or cash or a combination of both, then Holder shall agree to such exchange and become a party to the Exchange Agreement.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the Company has caused this Purchase Warrant to be signed by its duly authorized officer as of the ____ day of _____, 2018.

TITAN PHARMACEUTICALS, INC.

By: _____
Name:
Title:

[*Form to be used to exercise Purchase Warrant*]

Date: _____, 20___

The undersigned hereby elects irrevocably to exercise the Purchase Warrant for _____ shares of common stock, par value $0.001 per share (the "**Shares**"), of Titan Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), and hereby makes payment of $____ (at the rate of $____ per Share) in payment of the Exercise Price pursuant thereto. Please issue the Shares as to which this Purchase Warrant is exercised in accordance with the instructions given below and, if applicable, a new Purchase Warrant representing the number of Shares for which this Purchase Warrant has not been exercised.

or

The undersigned hereby elects irrevocably to convert its right to purchase ___ Shares of the Company under the Purchase Warrant for _____ Shares, as determined in accordance with the following formula:

$$X = \frac{Y(A-B)}{A}$$

Where,

X	=	The number of Shares to be issued to Holder;
Y	=	The number of Shares for which the Purchase Warrant is being exercised;
A	=	The fair market value of one Share which is equal to $_____; and
B	=	The Exercise Price which is equal to $_____ per share

The undersigned agrees and acknowledges that the calculation set forth above is subject to confirmation by the Company and any disagreement with respect to the calculation shall be resolved by the Company in its sole discretion.

Please issue the Shares as to which this Purchase Warrant is exercised in accordance with the instructions given below and, if applicable, a new Purchase Warrant representing the number of Shares for which this Purchase Warrant has not been converted.

Signature _____

Signature Guaranteed _____

INSTRUCTIONS FOR REGISTRATION OF SECURITIES

Name: _____
(Print in Block Letters)

Address: _____
_____
_____

NOTICE: The signature to this form must correspond with the name as written upon the face of the Purchase Warrant without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank, other than a savings bank, or by a trust company or by a firm having membership on a registered national securities exchange.

[*Form to be used to assign Purchase Warrant*]

ASSIGNMENT

(To be executed by the registered Holder to effect a transfer of the within Purchase Warrant):

FOR VALUE RECEIVED, _____ does hereby sell, assign and transfer unto the right to purchase shares of common stock, par value $0.001 per share, of Titan Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), evidenced by the Purchase Warrant and does hereby authorize the Company to transfer such right on the books of the Company.

Dated: _____, 20__

Signature _____

Signature Guaranteed _____

NOTICE: The signature to this form must correspond with the name as written upon the face of the within Purchase Warrant without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank, other than a savings bank, or by a trust company or by a firm having membership on a registered national securities exchange.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference, in the Prospectus constituting a part of this Amendment No. 1 to Registration Statement on Form S-1 (No. 333-226841), of our report dated March 30, 2018, relating to the financial statements of Titan Pharmaceuticals, Inc., appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2017. Our report contains an explanatory paragraph expressing substantial doubt about the Company's ability to continue as a going concern.

We also consent to the reference to us under the caption "Experts" in the Prospectus.

/s/ OUM & CO. LLP

San Francisco, California
August 30, 2018