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Corporate Presentation

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INNOVATIONS
IN MEDICINE™

Forward-Looking Statements

The presentation may contain “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Reference is made in particular to the description of our plans and objectives for future operations, assumptions underlying such plans and objectives and other forward-looking terminology such as “may,” “expects,” “believes,” “anticipates,” “intends,” “projects,” or similar terms, variations of such terms or the negative of such terms. Forward-looking statements are based on management’s current expectations. Actual results could differ materially from those currently anticipated and such statements involve risks and uncertainties, including, but not limited to, those risks and uncertainties relating to availability of financing, difficulties or delays in development, testing, regulatory approval, production and marketing of the Company's drug candidates, adverse side effects or inadequate therapeutic efficacy of the Company's drug candidates that could slow or prevent product development or commercialization and the uncertainty of patent protection for the Company's intellectual property or trade secrets.

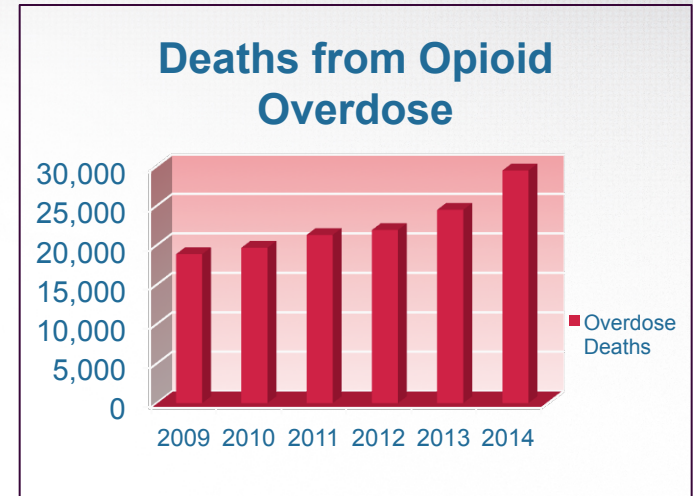
Company Overview

Titan Pharmaceuticals specializes in the development of treatments for select chronic diseases utilizing its proprietary ProNeura™ technology platform

- ProNeura: Proprietary Long-term Drug Delivery Platform
 - Provides continuous drug release and non-fluctuating medication levels over long periods of up to a year
 - Ideal for use in the treatment of chronic diseases for which maintenance of non-fluctuating medication levels may offer advantages over daily administration
- Probuphine® for the Maintenance Treatment of Opioid Addiction
 - Long-acting formulation of buprenorphine providing six months of steady-state levels
 - January 12, 2016 FDA Advisory Committee (PDAC) vote 12-5 in favor of approval of Probuphine
 - Probuphine NDA under review by the FDA with action date of May 27, 2016
- ProNeura Product Pipeline
 - Ropinirole implant for treatment of Parkinson's disease – file IND and commence proof of concept clinical study: Q4-2016
 - Triiodothyronine (T3) implant for treatment of hypothyroidism – pre-IND meeting target date: Q4-2016
 - Feasibility studies with additional compounds in progress

The Epidemic of Opioid Addiction

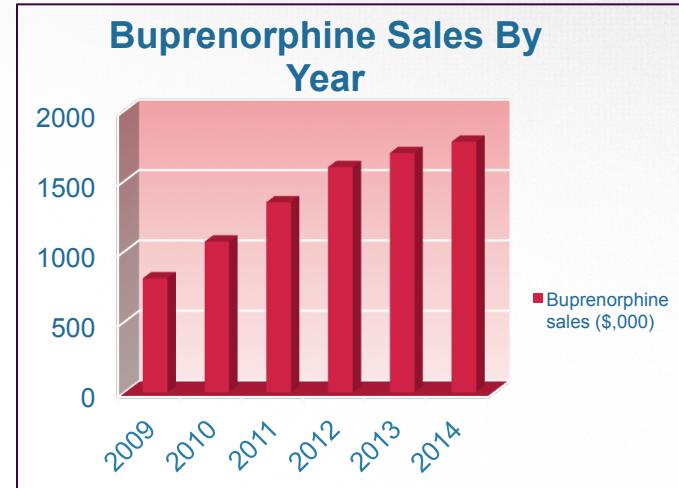
- Increasingly recognized as a global epidemic by world health authorities
- Addiction - a primary, chronic disease of brain reward, motivation, memory and neurobiological circuitry
 - Cravings, accompanied by lack of impulse control
 - Abstinence is rarely a successful therapeutic approach
 - Cycles of relapse and remission
 - Progressive, and often results in disability or premature death if untreated



Source: National Center on Health Statistics, CDC WONDER

Opioid Addiction: Treatment Overview

- Buprenorphine pharmacology makes it an effective, safer and more convenient treatment option
 - Controls withdrawal symptoms and cravings without inducing opioid euphoria in patients
 - Convenient outpatient treatment allowing take home medication, unlike methadone
 - Low risk of respiratory depression compared to other opiates
- Buprenorphine treatment is the gold standard in the U.S.
 - Annual U.S. sales of daily dosed formulations approaching \$1.8 billion
- Challenges with daily dosed formulations
 - Compliance
 - Sublingual dosing results in variable blood levels
 - Diversion and abuse



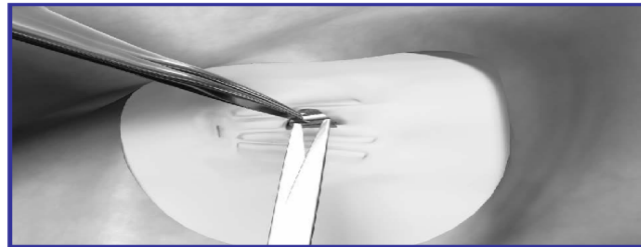
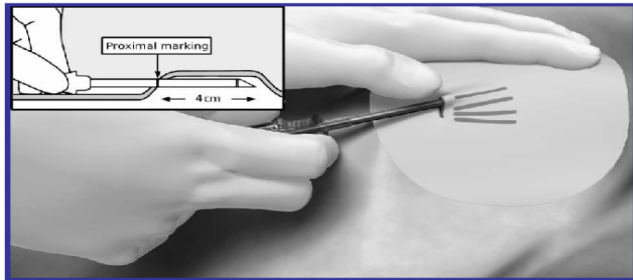
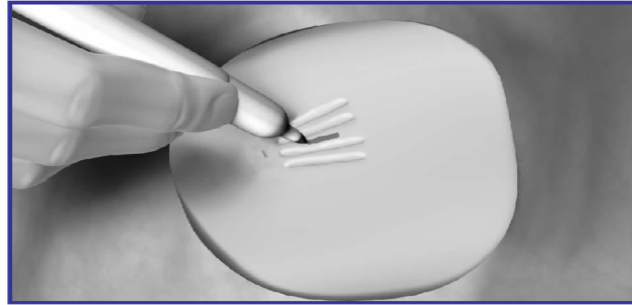
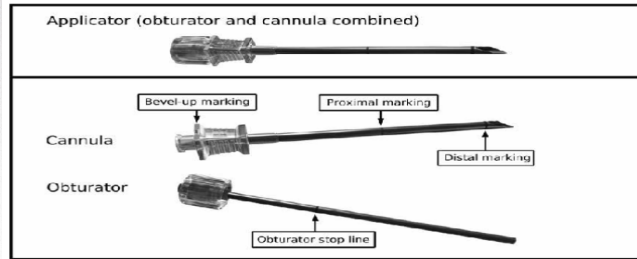
Proprietary ProNeura Technology: Probuphine Implant

- Implant contains 80 mg of buprenorphine HCl, uniformly distributed throughout the ethylene vinyl acetate co-polymer (EVA) matrix
- No reservoir, therefore no risk of drug dumping



Probuphine Administration

Four probuphine implants are inserted subdermally in the inner, upper arm in a brief office procedure. After six months, the implants are removed and new implants may be inserted in the opposite arm.



Probuphine Value Proposition

Probuphine is the first and only potential treatment for opioid dependence that provides non-fluctuating blood levels of buprenorphine around-the-clock for a period of six months

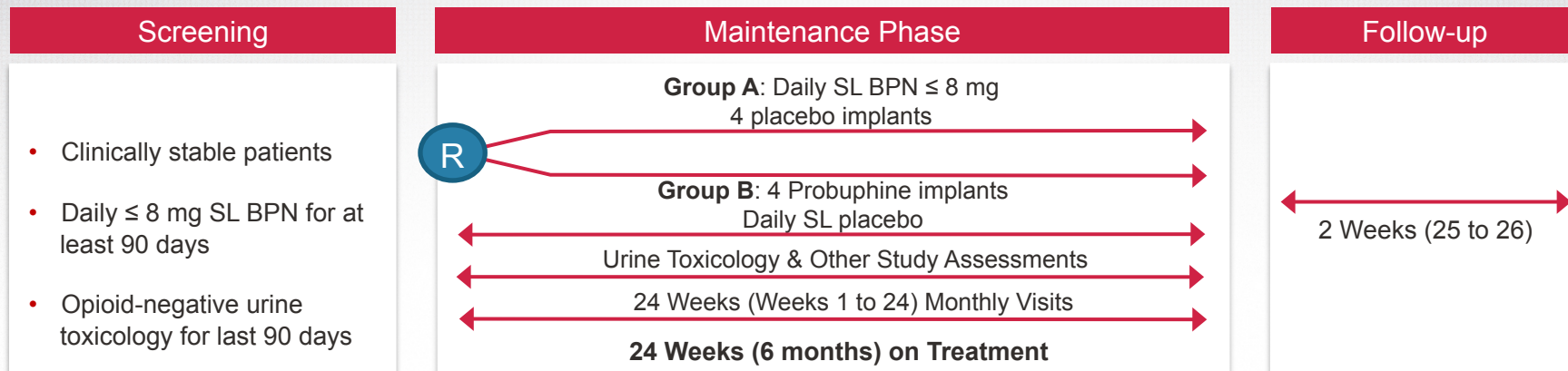
Efficacy	Effective in reducing illicit opioid use
Safety	Non-fluctuating drug exposure over six months may provide superior safety and tolerability
Compliance	Treatment with implant expected to enhance compliance
Ease of Use	Patients dosed once every six months in an outpatient setting
Diversion	Limited access to implants

Probuphine Clinical and Regulatory Background

- Six clinical studies completed and NDA submitted in October 2012
 - NDA accepted for Priority Review in January 2013
 - Positive advisory committee vote (10-4 for approval) in March 2013
 - Receipt of CRL in April 2013 requesting additional clinical testing and a few other items
- Additional Phase 3 study, as requested by FDA successfully completed in June 2015
 - A randomized, double blind, double dummy study evaluating a dose of four Probuphine implants in stable patients who have been receiving maintenance therapy at a dose of 8mg/day or less of buprenorphine. The primary efficacy analysis: non-inferiority comparison between the two arms
- NDA resubmitted at the end of August 2015 with additional clinical data and validation of the training program through human factors testing
- FDA reviewed the NDA at a Psychopharmacologic Advisory Committee meeting on January 12, 2016
 - PDAC voted 12-5 in favor of approval of Probuphine

Positive Results From PRO 814 Phase 3 Study

- Primary efficacy endpoint based on non-inferiority comparison of ‘responders’ following six months of treatment with either four Probuphine implants or 8 mg or less of an approved daily dosed sublingual tablet formulation of buprenorphine



R Randomization takes place on Day 1 (day of implant)

SL BPN = sublingual buprenorphine or sublingual buprenorphine/naloxone

Results:

	<u>Probuphine</u>	<u>SL BPN</u>	<u>Proportion Difference(95% CI)</u>	<u>Superiority P value</u>
Responder - ITT population	81/84 (96%)	78/89 (88%)	0.088 (0.009, 0.167)	0.03
Responder - modified ITT	81/87 (93%)	78/89 (88%)	0.055 (-0.032, 0.141)	0.22

Advisory Committee Meeting (January 12, 2016)

- Focus of the discussion:
 - Efficacy - What is the most appropriate definition of a treatment responder, given the use of supplemental “dose adjustments,” and missing or incomplete urine toxicology data?
 - Safety/HF validation - Given the possibility of procedural complications, is the training program adequate to insure that clinicians will be able to safely perform Probuphine insertion and removals?
- FDA explained that it was seeking guidance from the committee on the best way to analyze the data and presented several sensitivity analyses focused on measuring efficacy
 - FDA recommended method for analysis included
 - zero months with illicit opioid use
 - missing urines considered positive
 - up to two instances of supplemental buprenorphine use in the Probuphine arm / unlimited supplemental use in the SL BPN arm
 - Non-inferiority endpoint met with lower bound of CL at -0.09, once again favoring Probuphine
 - The safety data and HF validation information were presented and discussed by the committee along with the Risk Evaluation and Mitigation Strategy (REMS)
- The committee voted 12 – 5 in favor of approval of Probuphine

Probuphine Summary - The First of its Kind

- NDA review in process with FDA action date of May 27, 2016
- Partnership with Braeburn Pharmaceuticals for development and commercialization in U.S. and Canada
 - Upfront: \$15.75 mil; Approval: \$15 mil; Sales Milestones: \$165 mil; Tiered Royalties: mid teens-low 20s (%)
 - Braeburn has sublicensed Canadian rights to Knight Therapeutics
 - Analyst projections of peak sales: \$300 - \$500 million
 - U.S. patent protection to 2024
- Pursuing ex-U.S. opportunities in opioid addiction treatment
 - Progressing discussions with interested companies in select regions
 - Planning regulatory discussions following U.S. approval
- Opportunity to develop Probuphine for treatment of chronic pain

Titan: Adding Value Beyond Probuphine

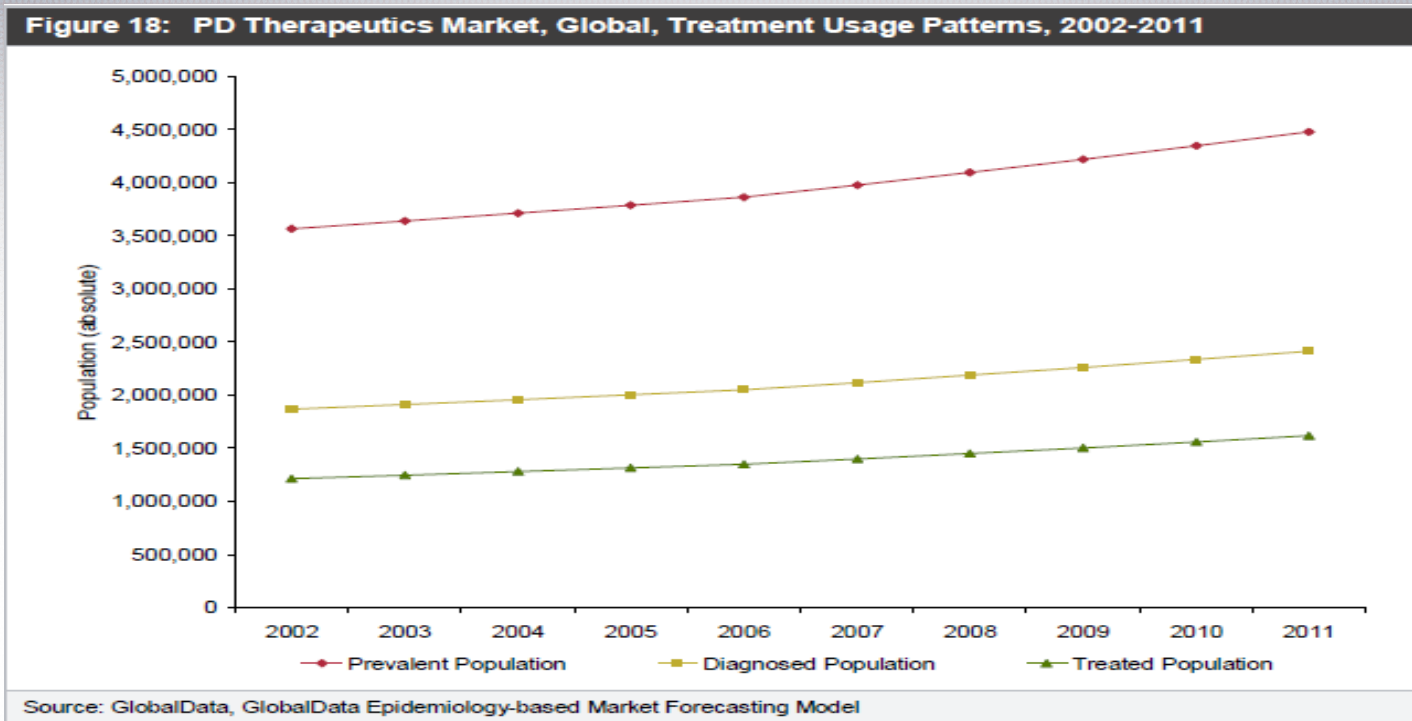
Proprietary ProNeura Technology Platform

- Long-term drug delivery technology validated through the Probuphine program
- Potential for the treatment of select chronic diseases for which low dose, long-term delivery and stable drug levels may offer advantages over other forms of administration
- Product development programs in progress:
 - Ropinirole implant for the treatment of Parkinson's disease (PD)
 - Triiodothyronine (T3) implant for the treatment of hypothyroidism
- Conducting feasibility evaluation of additional compounds in other chronic disease settings to add to the product pipeline
 - Benign Prostate Hyperplasia, Pre-exposure prophylaxis therapy for HIV-1 prevention, Type 2 Diabetes, Attention Deficit Hyperactivity Disorder

Parkinson's Disease Overview

Definition	Characterized by the loss of dopamine, which alters activity in the brain region impacting movement and motor function
Treatment	Treated with drugs designed to replace or mimic dopamine in the brain Following several years of chronic treatment, these drugs lose their benefit and trigger serious side effects in up to 80% of patients
Research	Pulsatile dopaminergic stimulation from current oral treatment may cause motor side effects Continuous dopaminergic stimulation (CDS) by systemic infusion of dopamine replacement medications has been shown to palliate these motor complications and also delay or prevent the onset of dyskinesias
Product Opportunity	Titan's ProNeura drug delivery technology has the potential to deliver continuous non-fluctuating levels of dopamine agonists and provide CDS for three months or longer from a single treatment

Parkinson's Disease Population Increasing Worldwide



Based on information from Titan and other sources believed to be reliable and prepared exclusively for Titan. Woodside Capital Partners is not responsible for any use that Titan may make of this material.

Parkinson's Disease - Therapeutics Market

- As many as one million people in the US affected by Parkinson's disease
- The number is expected to almost double by 2030 because of the aging population
- About 60,000 newly diagnosed for Parkinson's disease annually
- More than 23,000 die from Parkinson's disease each year

Sales of Dopamine Agonists, U.S.*

Year	Total Sales	% DA	\$ DA
2012	\$1.1 Billion	26%	\$286 Million
2022	\$2.3 Billion	18%	\$414 Million

Cost to American Society **

\$14.4 Billion Annually

Treatment Costs
\$8.1 Billion

Indirect Costs
\$6.3 Billion

If costs continue to rise they will double by 2040

* GlobalData; **Parkinson's Action Network, National Center for Health Statistics; "The Current and Projected Economic Burden of Parkinson's Disease in the United States" Movement Disorders, March 2013
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ProNeura Parkinson's Disease Program

- Ropinirole (Requip®), a generic dopamine agonist marketed by GSK for PD, was evaluated in a Parkinsonian primate model using ProNeura drug delivery platform
 - Results presented in June 2015 - 19th International Congress of Parkinson's Disease and Movement Disorders
 - Sustained plasma ropinirole levels for several months following implantation
 - No local skin irritation at implant site
 - Controlled PD symptoms without triggering dyskinesias
- Ropinirole implant program status
 - Implant formulation selected for clinical development
 - Non-clinical development program defined and initial clinical study design established
 - FDA feedback received on pre-IND meeting briefing material and now initiating the required non-clinical studies
 - On target to file IND in Q4 2016 followed by the initial pharmacokinetic and proof of concept clinical study

Hypothyroidism Disease Overview

Definition	<p>Hypothyroidism is a disorder that occurs when the thyroid gland does not make enough thyroid hormone to meet the body's needs</p> <p>Thyroid hormone regulates metabolism and affects nearly every organ in the body</p>
Cause	<p>Primary hypothyroidism is caused by a problem with the thyroid gland</p> <p>Secondary hypothyroidism occurs when another problem interferes with the thyroid's ability to produce hormones, such as the inability of the pituitary gland and hypothalamus to produce hormones that trigger the release of thyroid hormone</p>
Treatment	<p>Estimated number of people affected with hypothyroidism in the U.S. – 14 million</p> <p>Patients diagnosed using standard blood tests and receive treatment typically consisting of synthetic prohormone thyroxine (T4) given orally once a day, which in turn is converted by the body to the active triiodothyronine (T3)</p> <p>Based upon symptoms and blood tests it is estimated that 15-20% of patients are not adequately treated with T4 and physicians typically add an oral T3 dose to the treatment regimen</p>
Product Opportunity	<p>Oral T3 treatment is effective but comes with potential side effects like headache, nervousness, irritability, depression and arrhythmia caused by the peak and trough blood level fluctuations</p> <p>Titan's ProNeura drug delivery platform has the potential to deliver continuous, non-fluctuating levels of T3 and provide a stable blood level for several months following a single treatment.</p>

ProNeura Hypothyroidism Program

- Completed initial formulation development of the implant and conducted in-vitro and in-vivo drug release studies to further define implant formulation
- In-vivo non-clinical studies in progress evaluating implant formulations for drug release characteristics
 - Demonstrated non-fluctuating release of T3 over several months in small and large animal models
 - Testing in a non-clinical model of hypothyroidism in process
- Next steps
 - Complete proof-of-concept in the non-clinical studies
 - Establish the non-clinical study plan that will provide safety data for the IND
 - Target meeting with the FDA for a pre-IND meeting in Q4 2016
 - Goal is to start a proof of concept clinical study in mid-2017

Titan Pharmaceuticals Summary

- Titan Pharmaceuticals specializes in the development of treatments for select chronic diseases, utilizing its innovative ProNeura long term drug delivery platform
- Probuphine, a six month buprenorphine implant for the maintenance treatment of opioid addiction; NDA resubmitted at the end of August 2015; Advisory Committee voted 12-5 in favor of approval of Probuphine in January 2016; FDA has set action date of May 27, 2016
 - U.S. and Canadian partnership with Braeburn Pharmaceuticals - \$15 mil milestone at approval
 - Pursuing ex-U.S. opportunities for approval and commercialization
 - Potential for treatment of chronic pain
- ProNeura for Parkinson's disease (ropinirole implant) and hypothyroidism(T3 implant) have the potential to significantly enhance Titan's value
- Active evaluation of ProNeura long-term drug delivery platform for other chronic diseases
- Proven management team with strong track record of success
- Strong news flow expected to provide multiple value inflection opportunities

Titan Executive Management

- Marc Rubin, M.D, *Executive Chairman and Director*
 - 9 years with Titan Pharmaceuticals
 - Former Head of Global Research & Development and member of the Board of Management at Bayer Pharma
 - Executive R&D and commercial responsibilities at GSK for 13 years
 - 25 years in the pharmaceutical industry following 7 years at NIH
- Sunil Bhonsle, M.B.A., *President, CEO and Director*
 - 20 years with Titan Pharmaceuticals
 - 20 years with Bayer Corporation in Biological and Pharmaceutical finance and operations management
- Kate Beebe, Ph.D., *Executive Vice President, Chief Development Officer*
 - 9 years with Titan Pharmaceuticals
 - 19 years in industry, with senior positions in clinical development and medical affairs at GSK and Merck
 - 10 years in academic medicine



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DATE(S): Mar 2016

Thank You



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