

Fiscal Year End	Dec 31
Market Cap (12/31/17)	\$25 M
52-Week Price Range (2017)	¢1.2 - ¢2.2
Shares Outstanding	1.5 B
Cash (18 Jan '18)	\$5.4M
Note: amounts shown in AUD	

### COMPANY STRATEGY

**INDUSTRY:** Healthcare

**SECTOR: Biotechnology** 

Phosphagenics is an established Australian biopharmaceutical company, utilising its proprietary TPM® delivery technology to develop innovative therapeutics that address unmet medical needs and enhance patients' quality of life.

Traditionally a transdermal company, Phosphagenics is expanding its focus – utilising the solubilisation properties of TPM® to develop a portfolio of enhanced injectables.

### Its strategic focus is to:

- Enhance the efficacy and safety of already approved drugs
- Develop products using a novel route of administration, thus exploiting untapped value for known molecules
- Utilize accelerated regulatory pathways, which require reduced investment and risk than standard development programs

TPM® is the result of 15+ years of R&D and over \$100M

TPM® is protected by 100+ patents across 15 patent families

### TPM® TECHNOLOGY OVERVIEW

A proprietary, patient friendly and cost effective delivery & solubility technology, combining multiple forms of Vitamin E

Able to overcome various challenges of injectable drugs

Enables transdermal or topical drug delivery without adversely disrupting the skin surface or causing irritation

### **TPM® TARGETS** CHALLENGES FOR **INJECTABLE DRUGS FROM** MANUFACTURING TO THE CLINIC

Partners have already recognized advantages of TPM® & products are already in development

### Manufacturing

A safer & more natural excipient

Improve stability & reduces need for lyophilisation

produced a transparent TPM®/Propofol (without lecithin or soybean oil) now in preclinical testing

### **Supply Chain**

Reduce 'cold chain' requirements Speed up reconstitution

of lyophilised drugs

### Clinical Use

Increase stability of reconstituted drugs

Enable new injectable drugs to address unmet medical needs

### TERUMO

Global JV has TPM®/Daptomycin with stability & reconstitution

### **Mylan**®

advantages **now** in late phase development\*

Multiple new injectable drugs under early R&D

(disclosure limited for IP protection)

<sup>\*</sup> Partnership is in arbitration

INDUSTRY: Healthcare SECTOR: Biotechnology

PHOSPHAGENICS LIMITED
Clayton, Victoria, Australia

## LEGACY TOPICAL & TRANSDERMAL PRODUCTS PROVIDE CONSIDERABLE OPPORTUNITY FOR PARTNERSHIPS AND REVENUE

### TPM<sup>®</sup>/Diclofenac Gel





- Licensed in 17 countries
- Launched in India and other emerging markets
- Generating both royalty and TPM<sup>®</sup> sales revenue

### **TPM®/Oxymorphone Patch**

- First in World transdermal oxymorphone patch
- Significant performance & tolerability in Phase 1: plasma PK equivalent to oral dosing of Oxymorphone ER
- Commercial formulation undergoing optimization

### **TPM®/Oxycodone Patch**

- First in World topical / locally acting oxycodone patch
- Completed Phase 2a: promising activity in subset of patients with postherpetic neuralgia, but did not reach significance
- Positive nonclinical data encourage development for inflammatory pain (e.g. OA)

Several other proof-of-concept products have confirmed the ability of TPM® to increase delivery and/or reduce irritation associated with dermal delivery (due to Vitamin E activity)

### **ARBITRATION ACTION AGAINST AGILA & MYLAN**

- In 2016, Phosphagenics filed Arbitration proceedings against Agila & Mylan, asserting breaches of agreements associated with TPM®/Daptomycin.
- Phosphagenics' independent experts have calculated that, if successful on all claims and causes of action, the maximum damages could approach US\$300M.
- The formal Hearing of the arbitration was held and concluded in 4th Quarter 2017, and a decision is expected 1H 2018 (exact timing at the discretion of the Arbitrator).

### RECENT STRONG DATA IN ANIMAL NUTRITION

- In addition to being a source of Vitamin E, TPM® can also enhance the oral delivery of co-formulated nutrients, features which are beyond those of Vitamin E.
- A recent large scale program involved several livestock studies, the first of which in newly weaned pigs, showed a statistically significant 3% increase in Feed Conversion Ratio over Vitamin E. Additional studies in poultry have also shown significant performance improvements in standard and heat stressed conditions. Discussions and due diligence are underway with a number of large animal nutrition companies.

# RECURRING REVENUE FROM PRODUCTION

- Our facility in Melbourne produces 10+ tonnes of TPM<sup>®</sup> & Vital ET<sup>®</sup> per year, resulting in \$1M+ in revenue
- Vital ET® is a form of TPM® used in 100+ personal care products - it does not have delivery capabilities, but maintains the anti-irritant action (distributed by Ashland)



This document may include forward-looking statements that are inherently subject to risks and uncertainties. These statements relate to, but are not limited to: (1) the safety or efficacy of, or potential applications for, Phosphagenics' TPM® platform technology; (2) the strength of Phosphagenics' intellectual property; (3) the timelines for Phosphagenics' clinical trials and regulatory processes for its different products; (4) the scalability and efficiency of manufacturing processes; (5) revenue projections, market share expectations, share price expectations and capital requirements. Actual results may differ from the expectations expressed in these forward-looking statements, and the differences may be material (whether positive or negative). The risks that may cause Phosphagenics' actual results, performance or achievements to be materially different from those expressed or implied by such forward-looking statements, include but are not limited to: (1) risks inherent in the development, approval and commercialization of potential products; (2) uncertainty of clinical trial results or regulatory approvals or clearances; (3) changes to market trends or government laws or regulations; (4) the potential need for future capital; (5) dependence upon collaborators; and (6) protection of intellectual property rights, among others. Accordingly, you should not place undue reliance on these forward-looking statements.