



ASX Limited  
Market Announcements Office

## Phosphagenics Provides Update on TPM<sup>®</sup>/Propofol Development Program

9 November 2017, Melbourne: Australian drug delivery company, Phosphagenics Limited (ASX: POH; OTCQX: PPGNY), is pleased to announce it has reached several key milestones in the development of a TPM<sup>®</sup>/Propofol injection.

In July 2016 Phosphagenics and Terumo signed a Joint R&D Agreement to further optimise the world's first transparent formulation of propofol, initially developed by Phosphagenics leveraging its proprietary TPM<sup>®</sup> technology. Over the past 15 months the parties have closely collaborated to further the development of this product.

Earlier this year the parties finalised a formulation that has been successfully taken through a battery of *in vitro* assays, including 6-month real-time (room temperature) and accelerated (40°C) stability, indicating the potential for a 2-year shelf life. The parties have also shown that the TPM<sup>®</sup>/Propofol formulation is compatible with several common diluents used during the infusion process.

The collaboration has allowed the parties to generate two separate patent applications, which will be progressed in all key territories. The first of these is a Phosphagenics patent intended to protect the use of TPM<sup>®</sup> in a range of injectable formulations. The second is a joint Phosphagenics-Terumo patent specifically for the TPM<sup>®</sup>/Propofol formulation.

The parties are now advancing the TPM<sup>®</sup>/Propofol injection to non-clinical development. Under the present agreement, Terumo is responsible for a set of agreed-upon animal studies which are intended to begin this year and extend into 2018. The first of these studies will begin to investigate bioequivalence compared to the current propofol formulation (Diprivan<sup>®</sup>) and safety of the candidate formulation.

The present agreement affords Terumo the rights to the TPM<sup>®</sup>/Propofol injection in Japan, while Phosphagenics holds rights in Australia and New Zealand. In parallel, Phosphagenics has led the business development effort on behalf of the joint venture to license the TPM<sup>®</sup>/Propofol injection for the rest of the world. The parties intend for licensees to conduct clinical development of the product at their own expense, if so required by local regulatory authorities.

Phosphagenics will keep the market informed of further progress as appropriate.

**Ends**

## **Enquiries**

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## **About Phosphagenics**

Phosphagenics Limited is focused on developing and commercialising innovative Human Health, Animal Health and Personal Care products using its proprietary drug delivery system called TPM<sup>®</sup> (Targeted Penetration Matrix). TPM<sup>®</sup> is derived from Vitamin E using a unique, proprietary and patented process and has been proven to enhance the solubility and oral, dermal and transdermal absorption of drugs and nutrients. Amongst its major projects, Phosphagenics' is developing TPM<sup>®</sup> enhanced patches, gels and injectable products for the human health market and is also developing TPM<sup>®</sup> to enhance the feed efficiency and health of livestock.

Phosphagenics' shares are listed on the Australian Securities Exchange (POH) and its ADR – Level 1 program in the US is with The Bank of New York Mellon (PPGNY).

## **About Terumo**

Terumo Corporation is engaged in the manufacture and sales of medical products and devices, including pharmaceuticals. The company is headquartered in Japan, with extensive global operations. Terumo is listed on the Tokyo Stock Exchange (TSE: 4543) with a market capitalisation in excess of ¥1.5 trillion.

## **Inherent Risks of Investment in Biotechnology Companies**

There are a number of inherent risks associated with the development of pharmaceutical products to a marketable stage. The lengthy clinical trial process is designed to assess the safety and efficacy of a drug prior to commercialisation and a significant proportion of drugs fail one or both of these criteria. Other risks include uncertainty of patent protection and proprietary rights, whether patent applications and issued patents will offer adequate protection to enable product development, the obtaining of necessary drug regulatory authority approvals and difficulties caused by the rapid advancements in technology.

## **Forward-looking Statements**

Certain statements in this announcement may contain forward-looking statements regarding Company business and the therapeutic and commercial potential of its technologies and products in development. Any statement describing Company goals, expectations, intentions or beliefs is a forward-looking statement and should be considered an at-risk statement. Such statements are subject to certain risks and uncertainties, particularly those risks or uncertainties inherent in the process of developing technology and in the process of discovering, developing and commercialising drugs that can be proven to be safe and effective for use as human therapeutics, and in the endeavour of building a business around such products and services.