



30 April 2009

Company Announcement

RETINOIC ACID TRIAL DEMONSTRATES INCREASED DELIVERY AND REDUCED IRRITATION

Trial confirms Phosphagenics' TPM platform technology and demonstrates markedly increased delivery of retinoic acid with reduced irritation compared to a leading commercial product.

Phosphagenics Limited ("Phosphagenics") (ASX: POH; OTCQX: PPGNY) today announced the successful completion of a two-staged Phase 1 clinical trial. The trial demonstrated not only that the Company's patented drug delivery system could significantly increase the delivery of retinoic acid but that it could do so with less irritation than a leading commercial product used for the treatment of acne, Retin-A®.

Retinoic acid is the drug most often prescribed by dermatologists for topical treatment of acne. The drug often causes adverse side effects with irritation being the most common adverse event that affects almost 90% of patients. Half the patients who withdraw from retinoic acid treatment prematurely do so because of irritation. Consequently retinoic acid is often formulated into products that contain small amounts of the active reducing its effectiveness. Despite these adverse events, the U.S. market for topical prescription retinoids, such as retinoic acid, for the treatment of acne exceeds US\$300 million annually.

The first stage of the Phase 1 human trial, conducted in the US using 27 healthy subjects, clearly established that irritation as measured by erythema was significantly reduced with Phosphagenics' TPM/RA formulation as compared to Retin-A®. (Figure 1)

The second stage of the Phase 1 human trial was conducted in Australia with 10 subjects. This part of the study was designed to determine the comparative dermal absorption, depth of penetration and systemic exposure of retinoic acid after topical application of Phosphagenics' TPM/RA formulation or Retin-A®.

One hour after application of the products, Phosphagenics' formulation delivered, on average, 375% more retinoic acid into the skin than the commercial product, Retin-A (Figure 2).

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At every depth of skin surveyed during the study, the amount of retinoic acid was greater for the Phosphagenics' formulation than Retin-A®. However the magnitude of the difference between the two formulations in their ability to deliver retinoic acid increased with depth. At the deepest stratum of skin measured, Phosphagenics' formulation delivered greater than 20 times more retinoic acid as Retin-A® (Figure 3).

In spite of the greater dermal absorption achieved with Phosphagenics' formulation, there was no difference found in the plasma levels of retinoic acid between Retin-A® and the company's TPM/RA formulation. This is an important outcome as high levels of retinoic acid in plasma may lead to systemic toxicity.

"The ability to reduce acne is directly related to the amount of retinoic acid delivered into the skin. However, an increased dose typically leads to increased irritation. To be able to increase the amount of retinoic acid delivered and the depth of retinoic acid penetration is important for the effective treatment of acne. To achieve this with a decrease in erythema should ensure good patient compliance and the commercial success of the product", said Dr Paul Gavin, Vice-president Research and Development.

He further said that "With the previously announced successful Phase 1 trials for lidocaine and diclofenac, Phosphagenics has clearly demonstrated that it has an exceptionally viable platform technology for the targeted, localised delivery of many drugs into the skin and muscle tissues while limiting systemic exposure."

Figure 1 Erythema levels resulting from repeat application of retinoic acid formulations. Bars represent SEM. Asterix represents significance ($p < 0.05$). Scale: 0 = none; 2 = mild, slight erythema; 4 = moderate, confluent erythema; 6 = marked erythema, slight edema; 8 = marked erythema, edema, possible erosion

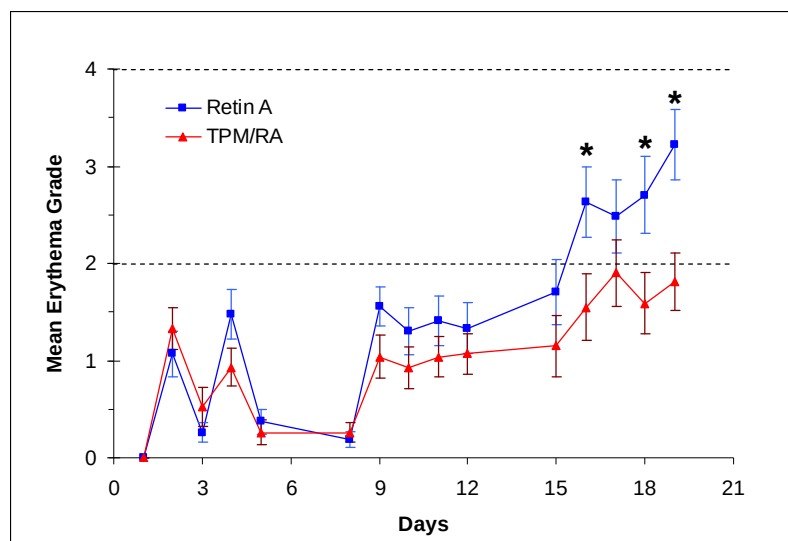


Figure 2 Total retinoic acid extracted from tape strips following topical application of formulations and sequential tape stripping. Bars represent SEM.

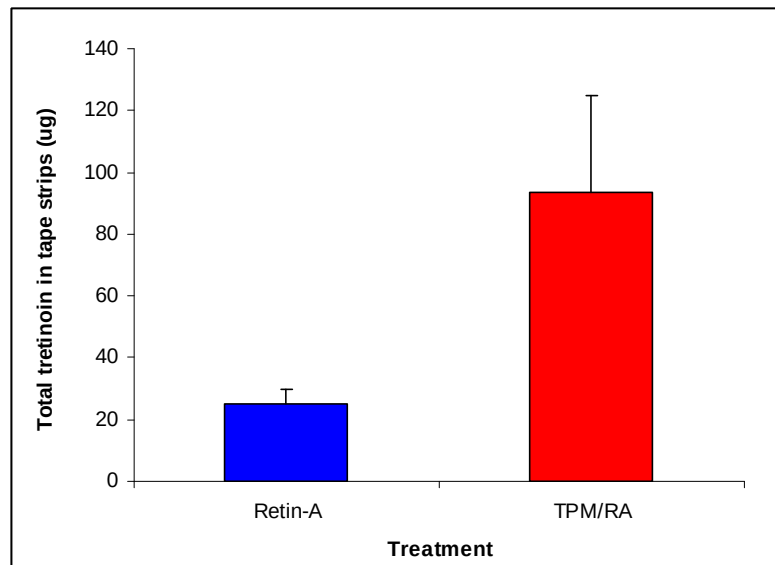
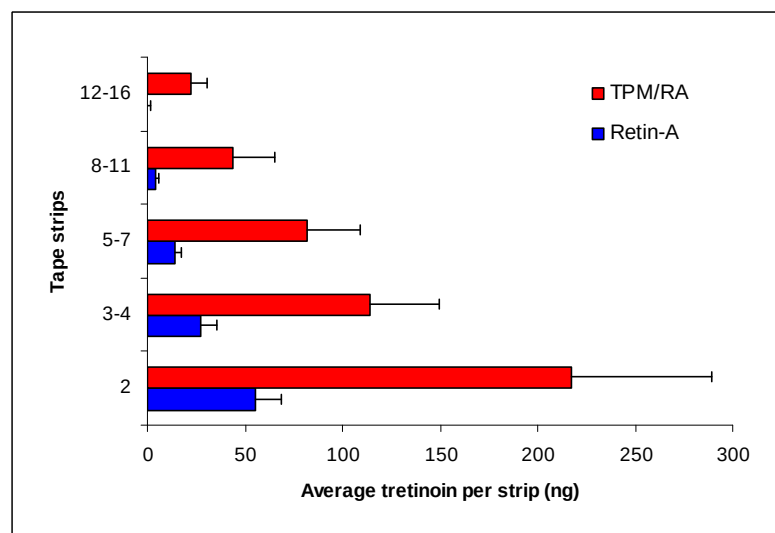


Figure 3 Depth of retinoic acid penetration after topical application of formulations and sequential tape stripping. Bars represent SEM.



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APPENDIX AND NOTES TO EDITORS

About Phosphagenics Limited

Phosphagenics is a Melbourne-based, globally driven biotechnology company focused on the discovery of new and cost effective ways to enhance the bioavailability, activity, safety and delivery of proven pharmaceutical and nutraceutical products.

Phosphagenics' core technology is built around the science and application of phosphorylation, a process where the addition of a phosphate group has been found to enhance the bioavailability, activity and safety of existing pharmaceuticals and nutraceuticals, as well as to assist in the production of drug delivery platforms.

Phosphagenics' shares are listed on the Australian Stock Exchange (POH) and the London Stock Exchange's Alternative Investment Market (PSG). An ADR – Level 1 program was established in the U.S. with The Bank of New York Mellon (PPGNY) for U.S. investors to trade in Phosphagenics' stock on the 'over-the-counter' market. In July 2007, this was upgraded to the International OTCQX, a new premium market tier in the U.S. for international exchange-listed companies, operated by Pink Sheets, LLC.

For more information, please visit Phosphagenics' web site at www.phosphagenics.com

Safe Harbor Statement

This press release contains forward-looking statements based on current expectations of future events. If underlying assumptions prove inaccurate or unknown risks or uncertainties materialise, actual results could vary materially from the Phosphagenics' expectations and projections. Risks and uncertainties include general industry conditions and competition; economic conditions, such as interest rate and currency exchange rate fluctuations; technological advances and patents attained by competitors; challenges inherent in new product development, including obtaining regulatory approvals; domestic and foreign health care reforms and governmental laws and regulations.

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