



ASX RELEASE

Peplin to present three scientific posters at the summer American Academy of Dermatology - Data supports safety and efficacy of PEP005 Gel for AK

EMERYVILLE, California and BRISBANE, Australia, 31 July 2008: Peplin, Inc. (ASX:PLI) announced today that clinical data from its two recently completed Phase II clinical trials supporting the safety and efficacy of PEP005 (ingenol mebutate) Gel for the treatment of actinic keratoses (AK) will be presented at the American Academy of Dermatology (AAD) meeting in Chicago on August 1, 2008.

PEP005 (ingenol mebutate) Gel is Peplin's proprietary product being developed for the treatment of actinic (solar) keratosis (AK), a pre-cancerous skin condition which can progress to skin cancer. Prior to filing an NDA with the FDA, Peplin intends to complete a series of clinical trials in two general anatomical areas: head, which comprises areas on the face or scalp, and non-head, which primarily comprises areas on the back of the hand, arm, chest, shoulder and back.

Managing Director & CEO Michael Aldridge said Peplin has a comprehensive development program evaluating the benefit of PEP005 (ingenol mebutate) Gel for AK at different concentrations for head and non-head treatment locations.

"We believe that the clinical data being presented at this year's prestigious summer AAD meeting further demonstrates PEP005 (ingenol mebutate) Gel's potential as a safe and effective new treatment option for physicians and their patients."

The three scientific posters are summarized as follows:

1. Poster P2009: Safety and Efficacy of Ingenol Mebutate (PEP005) Gel, 0.025% and 0.05%, for Actinic Keratosis

This study (PEP005-006) examined the efficacy and safety of PEP005 (ingenol mebutate) Gel at concentrations of 0.025% and 0.05% for treating non-facial AK lesions in a total of 222 patients in a randomized, double-blind, double-dummy, vehicle-controlled study.

The abstract concludes: 'Ingenol mebutate gel appears to be an effective, well-tolerated, novel, short-course therapy for AK lesions on non-facial sites with potential patient compliance benefits over topical agents requiring prolonged courses of therapy.'

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2. **Poster P2008: Efficacy and Tolerability of Ingenol Mebutate (PEP005) Gel, 0.025% and 0.05%, for Scalp and Non-scalp Actinic Keratosis**

PEP005 (ingenol mebutate) Gel was studied as an ad hoc analysis from clinical trial PEP005-006 to compare outcomes in patients with scalp (excludes face) and non-scalp lesions.

The abstract concludes: 'In this study, ingenol mebutate gel was effective for field-directed therapy of scalp and non-scalp AK lesions. The complete clearance rate was higher for scalp AK lesions when ingenol mebutate gel, 0.025% or 0.05% was applied for 3 days. Ingenol mebutate gel was well tolerated on scalp and non-scalp locations, although early (through day 8) Local Skin Responses tended to be more frequent and intense at scalp locations.'

3. **Poster P2010: Study to Determine the Optimal Tolerated Regimen of Ingenol Mebutate (PEP005) Gel for Actinic Keratosis of the Face or Face and Scalp**

This open-label study (PEP005-007) conducted in a total of 88 patients evaluated 6 concentrations and 2 regimens of PEP005 (ingenol mebutate) Gel on AK lesions on head locations (78.4% face, 21.6% on face and scalp).

The abstract concludes: 'A range of doses between 0.005% and 0.025% ingenol mebutate gel once daily for 2 or 3 days was identified for further clinical development for treatment of AK on the face or face and scalp.'

The abstracts can be viewed on the company's website (www.peplin.com) under Products and Technology and in the Research sub-section or at <http://aad.omnibooksonline.com/academy08/main.htm>.

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ABOUT PEPLIN

Peplin is a development stage specialty pharmaceutical company focused on advancing and commercializing innovative medical dermatology products. Peplin is currently developing PEP005 (ingenol mebutate), which is the first in a new class of compounds and which is derived from the sap of *Euphorbia peplus*, or *E. peplus*, a rapidly growing, readily available plant commonly referred to as petty spurge or radium weed. *E. peplus* has a long history of traditional use for a variety of conditions, including the topical self-treatment of various skin disorders, including skin cancer and pre-cancerous skin lesions. Peplin's lead product candidate is a patient-applied topical gel containing ingenol mebutate, a compound the use of which Peplin has patented for the treatment of actinic keratosis, or AK. This product candidate is currently in Phase II clinical trials and is referred to as PEP005 (ingenol mebutate) Gel.

ABOUT AK

AK is generally considered the most common pre-cancerous skin condition. AK usually appears as small, rough, scaly areas on the face, lips, ears, back of hands, forearms, scalp or neck. If left untreated, AK lesions may progress to a form of skin cancer called squamous cell carcinoma, or SCC. The Lewin Group, Inc., estimates that the total direct costs for AK in the United States was \$1.2 billion in 2004, and in 2002 there were approximately 8.2 million office visits for the treatment of AK. The Lewin Group also estimated that there were 58 million people in the United States living with AK in 2004. According to a May 2006 issue of The Journal of Family Practice, in northern hemisphere populations, 11% to 25% of adults have at least one AK lesion, compared with 40% to 60% of adults in Australia, which has the highest prevalence of AK worldwide.

FORWARD LOOKING STATEMENTS

This press release contains "forward-looking statements" as defined under U.S. federal securities laws, including, but not limited to, Peplin's clinical development plan referred to herein. These forward-looking statements can be identified through the use of words such as "anticipates," "expects," "intends," "plans," "believes," "seeks," "estimates," "may," "will," and variations of these words or similar expressions. Forward looking statements are based on management's current, preliminary expectations and actual results could differ materially as a result of various risks and uncertainties, including, but not limited to, delays in the completion of clinical trials resulting from, among other things, ambiguous or negative interim results, failure to close the acquisition of Neosil, Inc., unforeseen safety issues, failure to conduct the clinical trials in accordance with regulatory requirements or clinical protocols, suspension or termination of a clinical trial by the FDA or other regulatory authorities, lack of adequate funding to continue a clinical trial and other important factors disclosed from time to time in Peplin's disclosures to the ASX. Forward-looking statements speak only as of the date they were made. No undue reliance should be placed on any forward-looking statements. Such information is subject to change, and we undertake no obligation to update such statements.