



## ASX AND MEDIA RELEASE

### **Enrollment complete in Phase IIb AK clinical trial**

*- Results to be available earlier than expected*

**EMERYVILLE, California and BRISBANE, Australia, 14 August 2008 Peplin, Inc.** (ASX:PLI) today announced the completion of enrollment of its 240 patient phase IIb US and Australian clinical trial in actinic (solar) keratosis (AK), a common skin condition that can develop into skin cancer.

The PEP005-015 trial is evaluating the safety and efficacy of Peplin's proprietary product PEP005 (ingenol mebutate) Gel for AK. Peplin expects to announce results of this trial early in the first quarter of 2009.

PEP005-015 is a US and Australian multi-center, randomized, double blind, vehicle controlled clinical trial to evaluate the safety and efficacy of each of three concentrations (0.005%, 0.010% or 0.015%) and two treatment regimens (once a day for 2 or 3 consecutive days) of PEP005 (ingenol mebutate) Gel in patients with AK lesions on the head (comprising face and scalp).

Peplin Chief Executive Officer Michael Aldridge said he was very pleased with the progress of Peplin's lead product development program.

"Enrollment of patients into this trial was much faster than we expected," he said. "This has two important implications: first that it advances the timeline of pending milestones for this program, the most important of which is announcing results of this trial, and second it underscores the unsatisfied medical need which our product addresses.

"AK is caused by cumulative sun exposure in fair skinned individuals. We understand it is most common on the face and scalp, where sun damage is highest. Accordingly the results of this trial are important to address that market opportunity. The completion of this trial will also allow us to agree with FDA all remaining aspects of our AK clinical program at our End-of-Phase II meeting we plan to hold in early 2009."

The primary efficacy endpoint for this clinical trial will be the complete clearance rate of AK lesions. The secondary efficacy endpoint will be the partial clearance rate of AK lesions. Peplin will evaluate efficacy on the 57th day after treatment.

This Phase IIb clinical trial is intended to support the design of a subsequent Phase III clinical trial in patients with AK lesions on head locations, which Peplin plans to initiate in 2009, assuming a successful End-of-Phase II meeting with the FDA.

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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.