



ASX AND MEDIA RELEASE

Peplin secures approximately US\$24m in additional financing

EMERYVILLE, California and BRISBANE, Australia, 18 August 2008: Peplin, Inc. (ASX:PLI) today announced the successful arrangement of a private placement of common stock and warrants to raise approximately US\$24.0 million (Placement). The financing will primarily fund Phase III clinical development of PEP005 (ingenol mebutate) for actinic (solar) keratosis (AK).

As of 30 June 2008, assuming the completion of the Placement and the recently announced acquisition of Neosil (each of which remains subject to shareholder approval), Peplin's pro-forma cash position would be US\$56.0 million. The Company expects this cash balance will be sufficient to fund phase III testing of Peplin's lead product, PEP005 (ingenol mebutate) for AK on both the head and on the body.

The Placement consists of approximately 4.0 million shares of unregistered common stock, equivalent to approximately 80 million CHES Depositary Interests (CDIs), and warrants to purchase up to approximately 1.3 million shares of common stock.

The securities were sold as a unit (Unit), with each Unit consisting of three shares of common stock and a free four year warrant to purchase one share of common stock. Each Unit was sold for US\$18.14, equivalent to A\$0.35 per CDI which represents less than a two percent discount to the five day volume weighted price of Peplin CDIs trading on ASX to 15 August 2008 (A\$0.356). The warrants will be exercisable into one share of common stock upon the payment of US\$7.86, a 30% premium to the purchase price of the common stock. The Placement is subject to the approval of Peplin's shareholders at a meeting expected to be held in October.

The Placement was led by GBS Venture Partners (GBS), an Australian-based, venture capital group focused on life science opportunities. Dr Joshua Funder, a representative of GBS will join Peplin's Board of Directors following the closing.

The additional investors under the Placement comprise certain of the Company's existing shareholders, including MPM Capital, through its Bio Ventures IV fund, and New Enterprise Associates, Inc. (NEA), a global venture capital firm with approximately US\$8.5b in committed capital. Existing investors Asia Union Investments and Orbis Funds Management also participated.

PEPLIN, INC.

6475 Christie Avenue, Emeryville, CA 94608, USA
Tel: +1-510-653 9700 Fax: +1-510-653 9704

Level 2, Brisbane Portal, 1 Breakfast Creek Road, Newstead, QLD, 4006, Australia
Tel: +61-7-3250 1200 Fax: +61-7-3250 1299

www.peplin.com

CEO Tom Wiggans described the capital raising as a significant fundraising event and said: “Peplin is pleased to have secured development capital to progress its lead program. We are now in a position to continue to progress Phase III trials of our lead product, PEP005 (ingenol mebutate) for AK, as a new and attractive treatment for actinic (solar) keratosis, a common pre-cancerous skin lesion.”

“We are very pleased with the recent progress in PEP005’s development. The program has achieved important milestones and we are excited to continue this momentum as we enter Phase III trials.”

The shares of unregistered common stock are restricted and are not generally transferable until such time as Peplin has filed, and the Securities and Exchange Commission has declared effective, a resale prospectus relating to the shares of common stock. The new shares of common stock to be issued under the Placement will carry the same rights as the shares currently on issue.

Upon shareholder approval and following the closing of the Placement and previously announced acquisition of Neosil, Peplin would have approximately 15.2 million shares of common stock outstanding, equivalent to 303.6 million CDIs.

Further information:

Tom Wiggans
Chief Executive Officer
Tel: +1-510-653 9700
tom.wiggans@peplin.com

Media:

Andrew Collett
Hill & Knowlton
Tel: 02-9286 1224
acollett@hillandknowlton.com.au

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, failure to obtain the stockholder approval necessary to approve the pending private placement, 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.