



ASX AND MEDIA RELEASE

Peplin Completes Enrolment in its Phase 3 Clinical Trials for PEP005 Gel in AK on the Face and Scalp

EMERYVILLE, California and BRISBANE, Queensland, 7 July 2009: Peplin, Inc. (ASX:PLI) today announced the completion of enrolment of its two Phase 3 clinical trials for the use of PEP005 (ingenol mebutate) Gel to treat actinic (solar) keratoses (AK), a common pre-cancerous skin lesion, on head treatment areas, which include the face and scalp.

These Phase 3 clinical trials are referred to as REGION-IIa and REGION-IIb and enrolled approximately 250 patients each. They are designed to replicate the positive results demonstrated in earlier trials, specifically the results of the Phase 2b trial (PEP005-015) announced earlier this year. Peplin plans to announce the REGION-II trial results in the fourth quarter of this year.

Peplin's Chief Executive Officer, Tom Wiggans said: "The continued enthusiasm for our trials, as demonstrated by the remarkable speed of enrolment, highlights the unsatisfied medical need which PEP005 Gel addresses. The REGION-II trials are especially important as they are treating AKs on the face and scalp, which comprise an estimated 70% of the AK market and have the potential to provide the most patient benefit."

"Based on the data we have generated up to this point, we believe PEP005 Gel and its short course of therapy represent an advance in the treatment of a common skin condition, which, if left untreated, can progress to squamous cell carcinoma."

The REGION-II trials are both randomised, double-blind, vehicle-controlled studies that are being conducted at multiple sites in the US and Australia. Patients self apply the study medication (0.015%) or vehicle gel for three consecutive days to a 25-cm² treatment area containing four to eight AK lesions on the face or scalp. The primary efficacy endpoint for the REGION-II trials is the complete clearance rate of AK lesions and the secondary efficacy endpoint is the partial clearance rate of AK lesions within the treatment area. Peplin is also measuring the overall mean and median reduction in AK lesion count.

In addition to the REGION-II trials on head locations, Peplin recently completed its REGION-Ia trial for non-head locations, which included the trunk and extremities, and plans to initiate the REGION-Ib trial during the third quarter of 2009 to corroborate the results of the previously completed trial. Peplin plans to file a New Drug Application in mid-2010.

Further information:

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

Media:

Camilla Myers
Hill & Knowlton
Tel: 02-9286 1248
cmyers@hillandknowlton.com.au

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

ABOUT PEPLIN

Peplin is a development stage specialty pharmaceutical company focused on advancing and commercialising innovative medical dermatology products. Peplin is currently developing ingenol mebutate, or PEP005, which is a novel compound 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 (solar) keratosis, or AK. This product candidate referred to as PEP005 (ingenol mebutate) Gel is currently in Phase 3 clinical trials, having just completed their first Phase 3, known as REGION-1a.

ABOUT AK

Actinic keratoses (AK), also known as solar keratosis or sun spots, 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 and timing of clinical trials 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 clinical trials resulting from, among other things, ambiguous or negative interim results, 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 and in its Form 10 Registration Statement and most recent quarterly report on Form 10-Q filed with the US Securities and Exchange Commission. 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.