PEPLIN INC
Form 424B3
January 13, 2009

Filed Pursuant to Rule 424(b)(3)
Registration No. 333-155801

Prospectus Supplement No. 1

(to Prospectus dated December 11, 2008)

Peplin, Inc.

6,221,947 shares of Common Stock

This prospectus supplement supplements the prospectus dated December 11, 2008 (the Prospectus), which forms a part of our Registration Statement on Form S-1 (Registration No. 333-155801). This prospectus supplement is being filed to update and supplement the information in the Prospectus with information contained in our current report on Form 8-K, filed with the Securities and Exchange Commission on January 13, 2009 (the Current Report). Accordingly, we have attached the Current Report to this prospectus supplement.

The Prospectus and this prospectus supplement relate to the offer and resale of up to 5,365,999 shares of common stock, $0.001 par value, of Peplin, Inc., which includes 3,980,259 shares of common stock issued by us to certain investors in a private placement and 1,385,740 shares of common stock underlying outstanding warrants. We refer to the shares of common stock covered by the Prospectus as the Resale Securities. We will not receive any of the proceeds from the sale or other disposition of the Resale Securities by the selling stockholders. We will, however, receive proceeds from any warrants exercised for cash.

The selling stockholders or their pledgees, assignees or successors-in-interest may offer and sell or otherwise dispose of the Resale Securities described in the Prospectus from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices. The selling stockholders will bear all commissions and discounts, if any, attributable to the sales of Resale Securities. We will bear all other costs, expenses and fees in connection with the registration of the Resale Securities. See Plan of Distribution beginning on page 106 of the Prospectus for more information about how the selling stockholders may sell or dispose of their shares of the Resale Securities.

The Prospectus also covers the exercise of options exercisable for 855,948 shares of our common stock and our issuance of up to 855,948 shares of common stock upon such issuance. The options were originally issued in July 2006 by our predecessor, Peplin Limited. In connection with the reorganization of Peplin Limited in October 2007 into us, we issued new options to acquire shares of our common stock in exchange for the Peplin Limited options. The options have a weighted average exercise price of $13.05 per share and expire in October, 2010. We refer to these new options as the replacement options. Chess Depository Interests, or CDIs representing 1/20th of an interest in a replacement option are currently listed on the Australian Stock Exchange, or ASX, and trade under the symbol PLIO. On December 28, 2008, the closing price of the replacement option CDIs on the ASX was A$0.044 per CDI. We will receive proceeds from the exercise of any replacement options.

There is no public market for the shares of our common stock in the United States. Currently, the beneficial ownership of our common stock is listed on the ASX in the form of CDIs under the ASX trading code PLI. The CDIs are convertible at the option of the holders into shares of our common stock on a 1-for-20 basis.

Investing in our securities involves risks that are described in the Risk Factors section beginning on page 6 of the Prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if the Prospectus or this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is January 13, 2009.

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

January 7, 2009

Date of Report (Date of earliest event reported)

Peplin, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**000-53410**	**26-0641830**
(State of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification Number)**

6475 Christie Avenue

Emeryville, CA 94608

(Address of principal executive offices) (Zip Code)

(510) 653-9700

(Registrant s telephone number, including area code)

N/A

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

¨ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

¨ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

¨ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

¨ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 8.01. Other Events.

On January 7, 2009, Peplin, Inc. (the Company), issued a press release announcing positive results with its lead product candidate PEP005 (ingenol mebutate) Gel in its Phase IIb actinic (solar) keratosis dose ranging clinical trial (PEP005-015). A copy of the press release is furnished as Exhibit 99.1 hereto and is incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

99.1 Peplin, Inc. press release dated January 7, 2009

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

PEPLIN, INC.

(Registrant)

By: /s/ David J.B. Smith

Date: January 13, 2009

Name: David J.B. Smith

Title: Chief Financial Officer

EXHIBIT INDEX

99.1 Peplin, Inc. press release dated January 7, 2009

Exhibit 99.1

ASX AND MEDIA RELEASE

Positive Results for Peplin s Phase IIb AK Trial

Met primary efficacy endpoint with statistically significant complete clearance rate of AK lesions vs. vehicle
Reduction in overall lesion count in all active treatment groups
Well tolerated, rapidly resolving local skin responses at all concentrations and durations
Clear dose response effect

EMERYVILLE, California and BRISBANE, Australia, 08 January 2009 Peplin, Inc. (ASX:PLI) today announced positive results with its lead product candidate PEP005 (ingenol mebutate) Gel in its Phase IIb actinic (solar) keratosis (AK) clinical trial (PEP005-015) for the treatment of AK lesions on head locations, which comprise the face and scalp. AK is a common pre-cancerous skin condition caused by sun exposure. The face is the most common area for sun damage and the most common area for AK s, which can develop into skin cancers if left untreated.

As in previous trials, this study demonstrated a clear dose response relationship with four out of the six treatment groups achieving statistically significant clearance of AK lesions when compared with vehicle. The complete clearance rates ranged from 15.6% to 42.3% across the six active treatment groups. At all concentrations for both the two day and three day treatments, the drug demonstrated a favourable safety profile and was well tolerated; side effects comprised primarily of transient, short- term, local skin responses at the treatment site which peaked at Day 4 and returned to baseline by Day 15. There were no drug-related serious adverse events reported.

In the highest treatment group (0.015% PEP005 Gel for three consecutive days) the complete clearance rate (primary efficacy endpoint) was 42.3% (p=0.005 compared to vehicle) and the median reduction in lesion count was 84.5%. Additional trial results will be presented in an appropriate upcoming medical forum.

PEP005-015 was an eight-arm, 240-patient, US and Australian multi-centre, randomised, double-blind, vehicle-controlled, dose-ranging clinical trial. It was designed 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 two or three consecutive days) for Peplin s patented product, PEP005 Gel in patients with AK lesions on the head when used as field-directed therapy.

Sydney dermatologist and one of the Australian trial investigators, Dr. Robert Rosen, said current treatment options for AK have a number of shortfalls, including how they impact the skin during prolonged treatment periods.

PEPLIN, INC.

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The major challenge we face is patient dissatisfaction with current topical medications, which have long durations of treatment, pain and persisting skin irritation and redness. Dr. Rosen said.

As a result, patients are often unwilling to use their medications, particularly for lesions on the face and scalp. Therefore, a topical medication which can effectively and conveniently treat AK lesions in two or three days will be of significant benefit to doctors and their patients.

Peplin s Chief Executive Officer, Tom Wiggans, is extremely pleased with the positive results from Peplin s lead product development program.

The completion of our Phase II program represents a significant milestone for Peplin and takes us an important step closer to commercialisation.

The data are consistent with prior trials and will allow us to select both a dose and regimen for our Phase III development which would make PEP005 Gel, if approved, a very important new product for the treatment of AK. As no current product on the market has a short course of therapy and proven efficacy for both head and non-head lesions, the potential value that PEP005 Gel offers patients is considerable.

Peplin s Chief Scientific Officer, Peter Welburn, also expressed his delight at the successful results which were reported within the anticipated timeframe.

Managing the development of this product through Phase I and II trials, with the results consistently demonstrating statistically significant clearance of AK lesions at varying dosage regimens, has been very rewarding. The rapid enrolment of patients into this study emphasizes the unmet need for a therapy like PEP005 Gel. Our ability to select a well tolerated dose which offers a highly competitive and statistically significant clearance rate is extremely exciting and puts Peplin in a great position for further Phase III development.

Following an End-of-Phase II meeting with the U.S. Food and Drug Administration (FDA), Peplin plans to initiate a subsequent Phase III clinical trial for patients with AK lesions on the head (REGION-II) in 2009.

Completion of enrolment in Peplin s first Phase III trial, REGION-I, treating AK lesions on the body, was announced in December 2008. REGION-I is being conducted under a Special Protocol Assessment with the FDA, an agreement that the trial protocol design, clinical endpoints, and statistical analyses are acceptable to support a new drug application (NDA). It is binding upon the FDA unless a substantial scientific issue essential to determining safety or efficacy is identified after the testing is begun. REGION-I results are expected in the first half of 2009.

Further information:
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Chief Executive Officer
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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 (solar) keratosis, or AK. This product candidate is currently in Phase III clinical trials (trial known as REGION-I) and is referred to as PEP005 (ingenol mebutate) Gel.

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 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 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, 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.