ASX AND MEDIA RELEASE

Capital raising to advance actinic keratosis trials program

BRISBANE, Australia, 15 December 2005: Peplin Limited (ASX:PEP) today announced that it will raise $10 million to fund phase IIb clinical trials of its lead product PEP005 Topical for actinic (solar) keratosis, a very common skin condition which can develop into skin cancer.

The company will complete a placement of 14.3 million shares (12.7% of current shares on issue) to institutional investors at $0.70 per share. Peplin shares last traded at $0.71.

Managing Director & CEO Michael Aldridge said that following the recent positive phase IIa trial results for PEP005 Topical in the treatment of actinic keratosis there had been considerable interest in Peplin's product development program by investors.

"We have a well defined pathway for the development of our topical product for the global market. This capital raising secures the funds needed for the next stage of our clinical trials program in actinic keratosis," Mr Aldridge said.

The proceeds from this offering will be used to initiate and complete phase IIb clinical trials of PEP005 Topical for actinic keratosis. These clinical trials are the next major step in the development of Peplin's proprietary product. They are expected to start in the first half of 2006 and be conducted at sites in Australia and the US.

The results of the phase IIa clinical trials were announced on 28 November 2005 and exceeded expectations. They showed that PEP005 Topical gel was well tolerated by patients and had a favourable safety profile, with the majority of local skin reactions mild or moderate. Application of PEP005 Topical (0.05%) gel for just two days completely cleared 71% of lesions and this result was statistically significant ($p<0.0001$).

Peplin has three phase IIa clinical trials of PEP005 Topical in progress. These include two clinical trials in basal cell carcinoma (BCC), the most common form of skin cancer. The first of these trials on superficial BCC is due to report results in April 2006. If the results are positive Peplin would take PEP005 Topical for BCC into a more advanced clinical trials program which should commence later in 2006.

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ABOUT PEPLIN

Peplin is focused on the development and commercialisation of prescription human therapeutic products for the treatment of cancer. Its lead compound is PEP005, the first in a new class of investigational agents. Peplin's lead product is PEP005 Topical, which is being studied in clinical trials for the treatment of actinic (solar) keratosis (AK) (a pre-cancerous lesion) and non-melanoma skin cancer (NMSC). PEP005 Topical works by a powerful mode of action, directly killing most cancer cells and then recruiting and activating the local immune system to clean-up these dead cancer cells and kill any remaining cancer cells. PEP005 Topical is potentially a rapidly acting and cosmetically attractive non-surgical topical treatment for AK and NMSC. Peplin's product development activities are supported by the Australian Federal Government under its Pharmaceuticals Partnerships Program.

Peplin's earlier stage pipeline is targeted at leukemia (a blood borne cancer) using its lead compound PEP005 in an intravenous formulation (PEP005 IV) and bladder cancer using an intra-cavitary or intravesical formulation (PEP005 IC). PEP005 has demonstrated selective and potent anti-leukemia activity in pre-clinical disease models. PEP005 induces apoptosis in leukemia cells via the activation of PKC delta. Peplin holds global proprietary rights for PEP005 Topical and other oncology applications of PEP005. Its research portfolio of EPUFA compounds opens additional potential opportunities in cancer and pain.

ABOUT ACTINIC KERATOSIS

AK is a common skin condition characterised by rough, red, scaly patches, crusts or sores on the top layer of skin. If left untreated AKs can progress to squamous cell carcinoma, an invasive skin cancer that can be fatal. AKs usually develop on the face, lips, ears, scalp, neck, forearms and back of hands- areas that are most commonly exposed to the sun.

AKs are the most common pre-cancerous skin lesions worldwide affecting 50% of Caucasians over the age of 40 years with the average patient having 6-8 lesions. The treatment of AKs is the most common dermatologic procedure performed in the out-patient setting. Based on a 2001 study, in the US each year there are 3.7 million office visits and about 5.2 million procedures for AK. According to the American Academy of Dermatology AK affects more than 10 million Americans. The worldwide prevalence of AK is highest in Australia.

Current treatment alternatives comprise surgical techniques (primarily cryotherapy) and topical medications (e.g. 5-flourouracil, imiquimod and diclofenac). Current treatment approaches whilst mostly effective can cause scarring and hypopigmentation at the treatment site, can be inconvenient or may require long treatment duration for effect.