

PEP *Talk*

QUARTERLY REPORT TO SHAREHOLDERS
THREE MONTHS ENDED 31 DECEMBER 2005

***AK phase IIa clinical
trial delivers
positive results***



Peplin

Pharmaceuticals for Life

THE DECEMBER QUARTER MANAGING DIRECTOR AND CEO MICHAEL ALDRIDGE

The fourth quarter of 2005 was an important and exciting period for Peplin. We have now fundamentally and comprehensively validated the potential of our product candidates to address the highly attractive \$4 billion emerging market opportunity which we outlined in our previous PEPTalk (for the September 2005 quarter).

This has not gone unnoticed by domestic and international investors and by major international dermatology companies which have a very keen interest in how our development programs are progressing.

During the quarter we delivered results in four key areas of value recognition for companies in this business. Peplin:

1. completed a phase IIa clinical trial of PEP005 Topical (our lead product) for actinic keratosis and released positive results of that trial;
2. identified and outlined to shareholders the multi-billion dollar emerging market opportunity for our lead product candidates;
3. reached key milestones in development programs for our other product candidates and target indications; and
4. secured the necessary capital resources to advance our lead product into the next stage of development during 2006.

The team at Peplin was very busy throughout 2005. Many of the activities initiated during the year culminated in these announcements and will continue to produce results as we go forward. We now have a very full and broad product pipeline so we expect a similar busy schedule of exciting news flows throughout 2006 and beyond.

To recap, the key value drivers that became apparent during the December quarter were when Peplin:

1. **Delivered positive results:** In November 2005 Peplin announced positive results of its phase IIa clinical trial of patients with actinic (solar) keratosis or sun spots, a pre-cancerous lesion which if left untreated can progress to skin cancer and which is the most common skin lesion in Caucasians.

This study was conducted at multiple sites in Australia to evaluate the ability of our lead drug candidate, PEP005 Topical gel, to safely clear actinic keratosis. We documented a very favourable safety profile for the drug and very pleasingly we demonstrated statistically significant clearance rates. Two-thirds of patients using the highest concentration of our drug (0.05% PEP005 Topical) completely cleared 80% or more of their treated lesions versus 17% in the vehicle group and 71% of all treated lesions were completely cleared following just one application of gel on each of two days. The results show that PEP005

Topical has the potential to be a safe, effective and convenient medication for the treatment of this very common pre-cancerous skin condition.

The reporting of positive clinical trial results, particularly where the trial is in patients with the disease, provides encouraging and critical information on the potential of this product to meet unmet market needs in the treatment of the disease. The results exceeded our expectations in this regard.

2. **Identified an emerging multi-billion dollar market opportunity:** At its 2005 annual general meeting Peplin outlined the key drivers of growth in the market for topical treatments for actinic keratosis and non-melanoma skin cancer. Peplin is a leading participant in the development of new and more attractive products for this market. Our products in development address the most attractive segments of what we expect to grow into a A\$4 billion market opportunity. Full details of this analysis were presented at the AGM and in our September 2005 quarterly report to shareholders, PEPTalk; copies can be found at www.peplin.com.
3. **Achieved key milestones:** In December 2005 we announced that we had completed enrolment of patients into our phase IIa trial of patients with basal cell carcinoma, the most common form of skin cancer. This study is being conducted at multiple sites in Australia to evaluate the ability of PEP005 Topical to safely clear superficial basal cell carcinoma, a non-melanoma skin cancer, following just two treatments with our topically applied gel.

Completing enrolment is an important milestone in that it establishes the time frame for reporting results of the trial. Peplin expects to report the results of this study in April 2006.

In October Peplin announced it had commenced construction of a new commercial scale manufacturing facility for the production of GMP (Good Manufacturing Practice) grade PEP005. The new facility consolidates under a single roof the production of PEP005 which had previously been done in two separate facilities and incorporates selected process improvements to optimise productivity. This is an important component in planning for the final stage of product development and market launch.

4. **Secured the requisite capital resources:** In December 2005 Peplin capitalized on the strong investor support following announcement of our achievements during the quarter and closed a 14.3 million share institutional placement to raise A\$10 million. This placement ensures that Peplin has the necessary capital resources to initiate and complete advanced

THE DECEMBER QUARTER continued

clinical trials of PEP005 Topical for the treatment of actinic keratosis without having to revert to the market.

So you can see that this has been a very important and positive quarter for Peplin. We are pleased that our progress is starting to be recognized by the market. We are focused on pursuing the most efficient and effective pathway to market for our product candidates and to maximise the significant value they represent. The next major step in our skin cancer program is to initiate phase IIb clinical trials during 2006.

You will also see from the financial summary for the December quarter below that Peplin's cash burn rate has been just over \$9 million for the past year during which time we have initiated and conducted four phase IIa clinical trials and these activities have now started to produce significant news flows.

And to reiterate, while the December quarter saw a lot of good news announced by Peplin, there is much more to come. We expect to announce clinical trial results in our lead program in each of the first three quarters of 2006 as we complete our US dose escalation study in actinic keratosis, then our Australian trial on superficial basal cell carcinoma and then our Australian trial on nodular basal cell carcinoma. And of course we continue to progress our other programs focussed on developing products to treat leukemia and bladder cancer. We expect to take each of these programs into clinical development during 2006.

SUMMARY DECEMBER QUARTER FINANCIALS

Cash flows	December quarter (\$'000)	Last four quarters (\$'000)
Net operating cash flows	(2,548)	(8,672)
Net investing cash flows (excl. term deposits)	(208)	(477)
Net financing cash flows	9,418	14,603
Net increase / (decrease) in cash held	6,662	5,454
Cash position at end of quarter (incl. term deposits)	18,414	

- Cash-on-hand (including cash on short-term deposit) at 31 December 2005 totalled \$18.4 million, up \$6.7 million from the 30 September 2005 balance.
- Net operating cash outflow during the quarter of \$2.5 million was spent mostly on the conduct of four phase IIa skin cancer clinical trials and related activities. The first of these trials reported positive results at the end of November 2005.
- Net investing cashflows during the December quarter increased to \$0.2 million due mainly to progress on construction of the new commercial scale manufacturing facility for the production of GMP grade PEP005.
- Net financing cashflows comprise the net proceeds from the 14.3 million share placement to institutional and sophisticated investors at \$0.70 per share in December 2005, bringing the number of shares on issue to just over 127 million.

FUNDS RAISED FOR PHASE IIB CLINICAL TRIALS IN AK

Following the announcement at the end of November of the positive phase IIa trial results for PEP005 Topical in the treatment of actinic keratosis, there was considerable interest in Peplin's product development program by investors. Peplin took the opportunity to raise capital to fund phase IIb clinical trials of PEP005 Topical for AK.

Peplin requested from ASX a two day trading halt on 13 December to arrange a 14.3 million share placement to institutional and sophisticated investors to raise \$10 million. These shares (equivalent to 12.7% of shares then on issue) were issued at \$0.70 per share, just below the previous closing price for Peplin shares of \$0.71. This brings the number of shares on issue to 127.3 million.

The phase IIb clinical trials are the next major step in the development of Peplin's proprietary product and are expected to start in the first half of 2006.

UPDATE ON PEPLIN'S LEUKEMIA DRUG DEVELOPMENT PROGRAM

Peplin announced in October 2005 positive results of an initial efficacy study of our drug candidate PEP005 IV in a mouse model of acute myeloid leukemia. These results are very promising for PEP005 IV as they demonstrate for the first time in an animal model of human acute myeloid leukemia the drug's ability as a single agent to have an impact on this devastating disease, the most serious form of leukemia. We plan to complete pre-clinical studies of PEP005 IV and file an investigational new drug (IND) application with the US Food and Drug Administration (FDA). We announced in early December that a different catheter system needs to be developed for infusion studies. We are in the process of evaluating alternative catheter infusion systems.

PEPLIN'S PHASE IIA CLINICAL TRIAL OF PEP005 TOPICAL FOR AK

Actinic keratosis (AK), solar keratosis or sun spots is the very common dry scaly lesions that typically occur on sun exposed parts of the body. It is the most common skin lesion in Caucasians and is more common in older people who have had a long term exposure to UV radiation. It affects over 58 million people annually in the US, and is a disease where the majority of people remain untreated; in 2004 there were 8.2 million treatments for this condition. However it is a disease which should be treated as it can progress into a more dangerous form of skin cancer called squamous cell carcinoma.

We announced at the end of November 2005 the results of a phase Ila clinical trial of Peplin's proprietary drug PEP005 Topical for the treatment of AK. This trial was a multi-centre, double-blind, randomised, vehicle controlled, parallel group comparison study to evaluate the safety of three concentrations of PEP005 Topical gel (0.0025%, 0.01% and 0.05%) when administered once on each of two days. Secondary objectives were to determine a recommended treatment regimen, evaluate the efficacy of PEP005 Topical and evaluate subjects for cosmetic outcome. The study was initiated in March 2005 and was conducted in Australia.

The results exceeded our expectations for PEP005 Topical's safety and efficacy. They highlight the potential for a new convenient, safe and well tolerated topical medication which clears AK lesions following only two days of treatment. We believe a short treatment period will be an important differentiating factor in the large and growing markets for the topical treatment of AK and non melanoma skin cancer.

The study showed there was no apparent difference in safety or efficacy between using the drug on consecutive days or one week apart. As a result, Peplin should have the flexibility to develop a treatment regimen which aligns with the preferences of both clinicians and their patients.

"The drug appears to be active following just two treatment applications, which is quite unique," said Dr Greg Siller, Dermatologist and principal investigator for the trial. "If these results are validated in larger trials this product would be a great advance for our patients in the treatment of solar keratoses."

The study also showed that the highest concentration (0.05%) of PEP005 Topical was the most effective. The current US open label dose escalation clinical trial is designed to establish the maximum tolerated dose (MTD) of PEP005 Topical when applied on two consecutive days to an area of sun damaged skin containing an AK. While the results of this trial have yet to be reported a MTD equal to or higher than 0.05% will facilitate more advanced clinical trials of PEP005 Topical on an area of sun damaged skin with multiple or contiguous AK lesions at this concentration.

The observed favourable safety profile of two days treatment gives Peplin confidence that it could explore the activity of PEP005 Topical in a three day course of treatment in the next phase of clinical trials.

Peplin is making plans to conduct more advanced clinical trials of PEP005 Topical in AK in the US and Australia in 2006 in larger patient populations to progress the product to market as quickly as possible.

Full details of the results of the clinical trial can be found at Peplin's website at www.peplin.com.

HOW DOES PEP005 WORK?

The activity of PEP005 in skin cancer is quite distinct from its activity in leukemia. We have developed two animations which show how PEP005 works against these two very different diseases. The animations are on our website at www.peplin.com.

The two animations can be found in the "product pipeline" section of the "products and technology" part of the website. The animation on our topical gel for the treatment of actinic keratosis and non melanoma skin cancer can be found under PEP005 Topical and the animation on our systemic treatment for leukemia is under PEP005 IV.

UPDATE ON US DOSE ESCALATION PHASE IIA CLINICAL TRIAL IN ACTINIC KERATOSIS

After initiating a US based dose escalation clinical trial at the start of September, Peplin announced in conjunction with the positive phase Ila AK clinical trial results that a cohort of subjects has been treated at a concentration higher than 0.05%, the highest concentration used in the Australian clinical trial. This US dose escalation study is designed to establish the maximum tolerated dose (MTD) of PEP005 Topical when applied on two consecutive days to an area of sun damaged skin containing AK. An MTD equal to or higher than 0.05% will facilitate a phase Iib clinical trial of PEP005 Topical on an area of sun damaged skin with multiple or contiguous AK lesions at this concentration. We expect results of this clinical trial to be announced during the March quarter.

PEPLIN'S AGM

Peplin's annual general meeting of shareholders was held on 14 October and was well attended. Copies of addresses by Peplin's Chairman Dr Cherrell Hirst and Managing Director and CEO Michael Aldridge can be found on the company's website at www.peplin.com. Farewell comments were made by Wayne Goss who retired as a director of Peplin after more than five years on the company's Board. We are grateful to Wayne for his dedication and guidance and wish him well for the future.

PLANS FOR THE MARCH 2006 QUARTER

- **Australian phase IIa clinical trial for superficial basal cell carcinoma (BCC):** The three month follow-up period for patients enrolled in the sBCC trial continues and we expect to report results in April 2006.
- **Australian phase IIa clinical trial for nodular BCC:** Enrolment for the nodular BCC phase IIa clinical trial continues.
- **US phase IIa dose escalation AK clinical trial:** This dose escalation trial which started in August 2005 at a single centre in the US is studying the safety and efficacy of increasing doses of PEP005 Topical on an area of skin affected by AK. We expect to report results during the March quarter.
- **PEP005 IV for leukemia:** Peplin will complete the biocompatibility study and pre-clinical toxicology studies before filing an IND application with FDA.
- **New commercial scale API manufacturing facility:** We expect construction of Peplin's new GMP manufacturing facility for the production of the PEP005 active pharmaceutical ingredient (API) to be completed in the first half of 2006.
- **Expenditure mainly on skin cancer trials:** We expect expenditure during the March quarter to be primarily for the US-based phase IIa dose escalation clinical trial in AK and the Australian-based phase IIa clinical trials in sBCC and nBCC, construction and commissioning of the API manufacturing plant and conducting the biocompatibility study for delivery of PEP005 IV to treat leukemia. All expenditure is fully funded by cash reserves on hand.

Michael Aldridge
Managing Director & Chief Executive Officer
25 January 2006

PRODUCTS IN DEVELOPMENT

Product	Disease	Research	Pre-clinical	Clinical		
				I	II	III
PEP005 Topical	Actinic keratosis	[Progress bar spanning Research, Pre-clinical, and Clinical I]				
PEP005 Topical	Basal cell carcinoma	[Progress bar spanning Research, Pre-clinical, and Clinical I]				
PEP005 IV	Leukemia	[Progress bar spanning Research and Pre-clinical]				
PEP005 IC	Superficial bladder cancer	[Progress bar spanning Research and Pre-clinical]				
EPUFAs	Cancer and pain	[Progress bar spanning Research]				

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To register for this service shareholders can simply visit the Computershare website at www.computershare.com and:

- click on **Investors**,
- click on **Email address update**,
- enter **PEP** in the field,
- enter your holder identification number (**HIN**) or Security Reference Number (**SRN**), name and postcode, and
- click **Submit** and follow the prompts.

An e-mail will be sent to you for confirmation. Simply click on **reply** and then **send**.

If you have registered at www.peplin.com to receive our PEPupdates, you will continue to receive these.

PEPLIN OVERVIEW

Mission

We are dedicated to the development of prescription therapeutic products which allow people with cancer to live healthier, happier and longer lives.

Vision

Peplin's vision is to deliver superior returns to shareholders through a focus on developing and commercialising therapeutic products for the global market.

Peplin's first goal is to dominate the skin cancer market by delivering a novel product for the treatment of skin cancer. Peplin will build on that foundation to deliver market leading products for other fields of cancer.

Business

Peplin Limited is a public company based in Brisbane, Australia, focused on the development and commercialisation of proprietary prescription pharmaceutical products for the treatment of cancer. Its shares are listed on the Australian Stock Exchange (ASX) under the ticker PEP.

Technology

Peplin has a patent protected technology comprising a new class of naturally occurring molecules which show significant potential as anti-cancer agents for a wide range of human cancers. Peplin's lead molecule in this technology is PEP005, which is chemically described as ingenol-3-angelate. PEP005 has demonstrated powerful anti-cancer effects by way of a unique mode of action, and Peplin is the first to take this class of molecule into clinical development. Peplin holds global proprietary rights to the use of PEP005 in all oncology and other diseases.

Lead product

Peplin's 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 phase IIa clinical trials for the treatment of actinic 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 treatment for AK and NMSC. Peplin's product development activities are supported by the Australian Federal Government under its Pharmaceuticals Partnerships Program.

Market opportunity

PEP005 Topical's market opportunity is significant. AKs are the most common pre-cancerous skin lesions worldwide and the treatment of AKs is the most common dermatologic procedure performed in the out-patient setting.

In the US each year there are about 8.2 million procedures for AK. AK affects more than 58 million North Americans. The worldwide prevalence of AK is highest in Australia. AKs typically occur on sun damaged skin of Caucasians older than 40 years.

NMSC is the most common form of cancer worldwide. It affects 1.2 million people per year in the US. According to the Cancer Council Australia of all cancers NMSC is the biggest burden on the healthcare system accounting for \$232 million per year in treatment costs. Peplin is developing PEP005 Topical to address the highly attractive and significant global market opportunity for non-surgical approaches to the treatment of AK and NMSC.

Leukemia is a cancer of the blood and blood forming organs. The Leukemia & Lymphoma Foundation estimated there would be 34,810 new cases of leukemia in the US in 2005. According to the Leukaemia Foundation in Australia there are 2,370 people diagnosed with leukemia each year.

The most common type of leukemia is acute myeloid leukemia or AML which was estimated to strike 11,960 people in the US during 2005. AML is both the most common and the most devastating form of leukemia with a 5 year survival rate of less than 20%.

Pipeline

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 particularly in cancer and pain.