



# Developing human healthcare products to treat and manage respiratory and immune diseases.

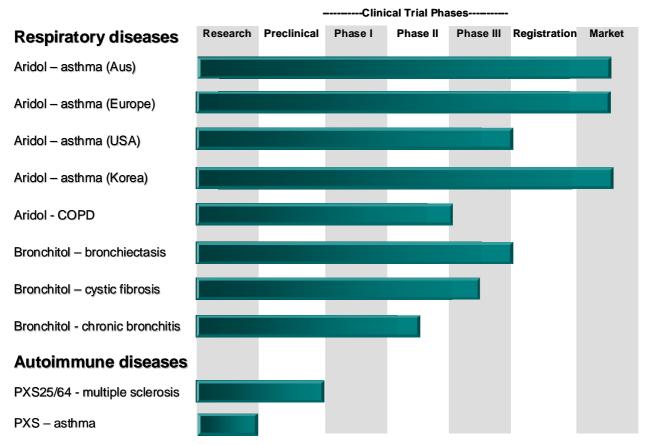
#### **Overview**

Pharmaxis is a specialty pharmaceutical company with activities spanning product research and development through to manufacture, sales and marketing.

Our therapeutic interests include lung diseases such as cystic fibrosis, asthma, bronchiectasis and chronic obstructive pulmonary disease; and diseases of the immune system such as multiple sclerosis and rheumatoid arthritis.

Our first product, Aridol, is now registered for sale in Australia and Europe to diagnose asthma through an airways function test. Aridol is designed to assist in the management of both asthma and chronic obstructive pulmonary disease. Our second product, Bronchitol, is in final clinical trials as a new treatment for cystic fibrosis and chronic obstructive pulmonary diseases such as bronchiectasis and chronic bronchitis.

# **Pharmaxis Product Development at December 2007**



COPD = Chronic Obstructive Pulmonary Disease - a fatal disease of the lungs, related to smoking

Front cover: Pharmaxis Operations Manager, John Crapper and Company Secretary, David McGarvey at the ground breaking ceremony for the new building

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# **CEO Report**



The December quarter was busy as we dealt with all the complex issues required in bringing a new pharmaceutical to the market place. Importantly, construction began on the new purpose built facility that will allow supply of Bronchitol to our first markets. The benefit experienced by subjects on the recently reported bronchiectasis trial has resulted in a large number of requests for us to continue to supply Bronchitol. This we are doing through a compassionate use programme, while working with the various regulatory agencies mapping out the path to final marketing approval. In this regard, we were very pleased to reach agreement with the Food and Drug Administration on the design of the last Phase III cystic fibrosis trial. The trial design has been agreed under a Special Protocol Assessment and provides a clear path to U.S. approval for Bronchitol. We were able to raise additional capital in October which will be invested in new plant and equipment, in finishing the Bronchitol clinical programmes and in preparing for Bronchitol's first launch.

Alan B. Roberton

Alan D Robertson, Chief Executive Officer

# **Fourth Quarter Highlights**

- O Special Protocol Assessment concluded with the U.S. FDA, allowing the commencement of a Phase III clinical trial with Bronchitol in adults and children with cystic fibrosis.
- O Commenced construction of a new 7,000 square metre manufacturing and research facility at Frenchs Forest.
- Embarked on a major Aridol US asthma management study in collaboration with the U.S. National Institute of Health.
- O Completed a \$61.7 million capital raising to new and existing investors.
- O Concluded the full preclinical safety testing programme for PXS25.

# Recent Highlights Subsequent to Quarter End

O The granting of a marketing application for Aridol in South Korea.

# **Forthcoming Events**

- Release of data from a Phase II trial in subjects with cystic fibrosis. The study is designed to determine the minimum effective dose of Bronchitol.
- O Completion of a pilot clinical trial with Bronchitol in patients with COPD.
- O Completion of clinical trial design discussions with the U.S. FDA, allowing commencement of a U.S. Phase III trial in bronchiectasis.
- O Filing of a U.S. New Drug Application for Aridol.

Agreement reached with U.S. FDA on CF trial design

Phase II CF study to report shortly 06 February 2008 phormoxis

# **Current Regulatory Activities**

# Aridol EU national approvals

New Aridol markets Following the completion of the European Mutual Recognition Procedure, we have now received marketing authorizations for Aridol from Denmark, Sweden The Netherlands, Ireland, the United Kingdom and Portugal. We continue to work with the other individual countries within the European Union to finalise the process as efficiently as possible.

The Aridol marketing application was filed in early July with the Korean FDA and approval was granted in January 2008.

For Switzerland, we are well into the review process which can be somewhat more protracted than in other parts of the world. We are anticipating a decision from the Swiss agency around the middle of 2008.

Aridol meeting scheduled with FDA

For the USA, we have finalised the arrangements for the pre-New Drug Application (NDA) meeting which will be held during the first quarter of 2008. The purpose of the pre-NDA meeting is to discuss the presentation of data (both paper and electronic) in support of the application. The information provided at the meeting includes:

- A summary of clinical studies to be submitted in the NDA, and
- The proposed format for organising the submission, and presenting the data.

The meeting is conducted to uncover any major unresolved problems or issues and to help the FDA reviewers to become acquainted with the general information to be submitted. This should help facilitate the review process.

Once the NDA is filed, a meeting may also occur 90 days after the initial submission in order to discuss issues that arose in the initial review.

# **Current Marketing Activities**

Aridol launched in Europe

The first shipments of Aridol for the new European markets left the factory in December 2007. Additional authorisations and subsequent product promotion in the other European countries will occur throughout 2008. Sales in the UK and Ireland are generated through our own personnel and the rest of Europe is accessed through a regional network of distributors.

The appointment of marketing and clinical personnel in the US to coordinate clinical trials locally and to begin commercial operations represents an important milestone in establishing a global Pharmaxis business. Additionally, the recent approval of Aridol in Korea will form the platform for the development of the business in South East Asia.

US presence established

Aridol sales continue to grow in the more established Australian and Swedish markets. It has now been included in all the major hospital and State formularies, has been included in both the police and defence force lists of accepted lung function challenge tests and is finding acceptance as a marker of disease in international clinical trials. We are scheduled to present further information on Aridol at a major U.S. international congress.

# **Current Clinical Activities**

Bronchitol is being developed as a new treatment for bronchiectasis, cystic fibrosis and acute exacerbations of chronic bronchitis. Bronchitol has proven to be remarkably effective in a number of clinical trials in improving quality of life and clearing mucus from the lower airways. Up to now, patients have relied on physiotherapy and postural drainage to keep their lungs clear and Bronchitol promises a more effective and more convenient alternative. Bronchitol is the first therapeutic agent that has been shown to improve normal lung clearance mechanisms.

**Bronchitol** improves quality of life

#### **Bronchitol for bronchiectasis**

**Bronchitol** reduces antibiotic use

In late August, we released the preliminary results from a 350 patient Phase III clinical trial in bronchiectasis. The primary efficacy measures were quality of life and mucus clearance and on both measures Bronchitol produced a statistically significant change and a clinical improvement in the subjects. Additionally, there was a significant reduction in antibiotic use in subjects that were treated with Bronchitol versus those subjects treated with the inactive comparator. This was the first successful Phase III clinical trial ever conducted in this patient group.

At the end of the 12 week treatment period, patients elected to participate in an extension of the study where they would take Bronchitol for a total of 52 weeks. This component of the study was designed to gather the necessary safety data to demonstrate to the regulatory authorities the safety profile of Bronchitol following long term treatment.

trial near completion We are now making Bronchitol available to patients through a regulatory mechanism that allows patients access to unapproved drugs when there are no effective treatment alternatives.

We are finalizing the Phase III clinical trial design with the FDA under the Special Protocol Assessment scheme. This trial will conducted in the U.S. during 2008.

The ability of Bronchitol to improve patient's Quality of Life and reduce the need for antibiotic treatment underlies the product's attractiveness as a treatment option for bronchiectasis. Clinical studies have shown a pronounced and prolonged effect on mucus clearance Successful treatment **Potential** Use of Bronchitol is expected with Bronchitol would (ongoing studies) to improve success for lead to reduced lung function and reduce the **Bronchitol** antibiotic use number of infectious episodes Using inhaled dry-powder Bronchitol would offer a technology, Bronchitol is significant improvement of delivered directly and patients' QoL unequalled by effectively to the lungs current treatments

52 week safety

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# **Bronchitol for cystic fibrosis**

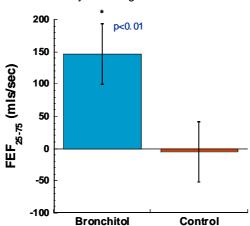
Cystic fibrosis is a genetic disease characterised by extremely thick mucus in the digestive and pulmonary systems. Sticky, tenacious secretions in the lungs lead to frequent, debilitating infections, subsequent irreversible lung damage, and a shortening of life due to respiratory failure.

Bronchitol has been designed to improve lung hygiene by restoring the surface liquid lining of the lung that is depleted in people with cystic fibrosis. By doing this, we expect to reduce the number of lung infections and to improve mucus flow and clearance.

Early clinical trials with Bronchitol have shown a marked improvement in lung function and we are now completing the clinical development for Bronchitol for cystic fibrosis.

Improvement in air flowing in small airways following Bronchitol treatment

Bronchitol improves air flow in CF lung



Phase III CF trial well underway The Phase III European/Australian trial for Bronchitol in cystic fibrosis (CF301) is being conducted in 40 hospitals across Australia, New Zealand, Ireland, The United Kingdom and Germany. It is recruiting well, and to date we have enrolled over 120 subjects. The trial is expected to reach full recruitment during the second quarter of 2008.

Bronchitol has orphan drug designation in the European Union and a successful result from this study will allow us to submit a marketing application in Europe and elsewhere.

The trial includes an initial six month period where the treatment is unknown (ie Bronchitol or placebo), followed by an extended treatment period when all patients receive Bronchitol.

US Phase III trial finalised with the FDA Plans for a second Phase III trial in the USA are complete. We have finalised a clinical trial protocol with the FDA, are working with the U.S. Cystic Fibrosis Foundation on selecting trial centres and have appointed a contract research organisation to assist with the study. We anticipate commencing this trial during Q2 2008.

We are also conducting a Phase II trial in patients with cystic fibrosis to ensure we fully understand the effects of different doses of Bronchitol on the lung functions of the patients. The study has reached the required number of patients and we expect to have data from this study during the first quarter of

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# **Current Research Activities**

Our new drug discovery research team is based in purpose built laboratories in North Ryde and is investigating new treatments for immune system related disorders such as asthma, multiple sclerosis and rheumatoid arthritis.

PXS25 completes preclinical development PXS25 is a product of this research and we have developed improved procedures for its preparation. PXS25 has shown to be effective in models of multiple sclerosis, in models of acute lung injury and in models of asthma. The preclinical safety testing is now complete and we anticipate commencing our first clinical trial with this compound in the first half of 2008.

An earlier research programme is discovering new inhibitors of a protein that has recently been implicated in a number of inflammatory diseases, including asthma and diabetes. While still at an early stage, highly potent inhibitors have been discovered and these are undergoing refinement to ensure they meet the demands of a new pharmaceutical. We expect to commence shortly a full preclinical toxicology evaluation of the best of these inhibitors with a view to having the compound ready for human studies by the end of 2008.

# **Manufacturing Expansion**



Construction of the new facility for the manufacture of Aridol and Bronchitol commenced in early December. The purpose built 7,000 square metre facility will also house the research group currently located in North Ryde and is expected to be completed in early 2009.

# **Publications and Presentations**

More than 50 papers about Aridol, Bronchitol or mannitol for inhalation have now been published in peer-reviewed journals. New publications this past quarter include:

 Ian A McDonald et al., Semicarbazide Sensitive Amine Oxidase and Vascular Adhesion Protein-1: One protein Being Validated as a Therapeutic Target for Inflammatory Diseases. Annual Reports in Medicinal Chemistry; 2007, 42, 229.

2. C. Porsbjerg et al., Relationship between airway responsiveness to mannitol and to methacholine and markers of airway inflammation, peak flow variability and quality of life in asthma patients. Clinical and Experimental Allergy; 2007, **38**, 43-50.

Two new scientific articles published

# **Patent Update**

A patent covering both Aridol and Bronchitol has been granted in Canada.

A new U.S. provisional patent application has been filed covering antiinflammatory molecules with potential in diseases such as asthma.

Bronchitol patent granted in Canada

#### Financial Overview for the Second Quarter

We finished the period with cash and cash equivalents of A\$121 million following the successful share placement and share purchase plan that was completed during the quarter. We are therefore well placed to pursue our clinical program and expand our manufacturing capacity.

#### Revenue

Aridol sales for the December 2007 quarter of A\$146,000 were 148% greater than the December 2006 quarter and 210% greater than the September 2007 quarter. Sales were made to customers in Australia (35%), Europe (25%) and to pharmaceutical companies for use in their clinical trials (40%).

The increase in interest income over the prior comparable quarter reflects the increase in invested cash as well as generally higher interest rates received on the bank accepted bills in which the majority of funds are invested.

Grant income relates predominantly to the Pharmaceuticals Partnerships Program which was awarded to us in 2004. The amount includes a reconciling adjustment following completion of funding in the current quarter. During the quarter we were successful in applying for an Export Market Development Grant of \$70,000.

### **Expenses**

Research and development expenses of A\$4.6 million for the December 2007 quarter compare to A\$7.3 million in the December 2006 quarter, and A\$5.0 million in the September 2007 quarter.

Clinical expenses reduced significantly (52%) in the December 2007 quarter from the December 2006 quarter, reflecting a decreased number of clinical trials in the active dosing phase. Clinical expenses accounted for approximately 49% of research and development expenditure. The December 2007 level of expenditure is similar to the September 2007 quarter, but is expected to increase as our European Phase III clinical trial in cystic fibrosis continues to recruit and as two U.S. Phase III clinical trials commence in 2008.

Our drug discovery unit accounted for approximately 12% of R&D expenditure - an increase of 80% over the December 2006 quarter but unchanged from the September 2007 quarter. This unit came to full strength in the first half of 2007.

Preclinical expenses accounted for approximately 9% of R&D expenditure – a decrease of 31% over the December 2006 quarter but an increase of 15% over September 2007 quarter. Preclinical efforts in this quarter related to safety studies required for PXS25 to commence Phase I studies, while in December 2006 our preclinical expenditures were focused on chronic safety studies required to undertake Phase III Bronchitol trials in the U.S..

Manufacturing R&D expenditure expenses accounted for approximately 30% of R&D expenditure - a decrease of approximately 14% from level of expenditure in both December 2007 and September 2007 quarters.

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> Manufacturing R&D remains focused on the supply of product to clinical trials and to long term stability studies required for the Aridol marketing application in the U.S..

> Commercial expenses of A\$1,053,000 compare to A\$919,000 in the December 2006 quarter. The current quarter includes costs associated with the opening of an office in the United States. However, the predominant reason for the increase in commercial expenses is the result of increased (non cash) costs in relation to employee share options.

Administration expense for the December 2007 quarter of A\$1,411,000 were 45% higher than the December 2006 quarter of A\$973,000. The increase in administration expenses is mainly attributable to additional compliance costs associated with expanding the group both in size and internationally, and increased (non cash) costs in relation to employee share options.

Income tax expense relates to income generated by our UK and U.S. subsidiaries which are reimbursed for their expenditure on a cost plus basis.

#### Cash Flow

Investing activities for the December 2007 quarter of A\$1.5 million predominantly relate to the new manufacturing facility.

During the current quarter the group successfully completed a A\$50 million share placement to Australian, U.S., Asian and European institutions and professional investors and a A\$11.7 million share purchase plan on the same terms as the share placement.

#### Financial Statements Presented

In November 2007 the U.S. Securities and Exchange Commission (SEC) approved rule amendments which allow foreign companies listed in the U.S. to file financial statements prepared under International Financial Reporting Standards (IFRS) rather than U.S. Generally Accepted Accounting Standards (U.S. GAAP) or a reconciliation to U.S. GAAP. As an Australian listed company Pharmaxis adopted Australian International Financial Reporting Standards (AIFRS) for the 2007 financial year. Financial statements prepared under AIFRS are fully compliant with IFRS and Pharmaxis will therefore file IFRS financial statements in its 2008 SEC filings. The differences between Pharmaxis financial statements prepared under U.S. GAAP and IFRS relate solely to presentation, and in particular research grants which are shown as income for IFRS but offset research expenditure for U.S. GAAP. The attached financial statements are prepared under IFRS.

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# International Financial Reporting Standards (Unaudited)

('000 except per share data)

# Income Statement

	Three months ended			Year-to-date			
	31-Dec-07	31-Dec-06	31-Dec-07	31-Dec-07	31-Dec-06	31-Dec-07	
	A\$	A\$	US\$(1)	A\$	A\$	US\$(1)	
Revenue from sale of goods	146	68	128	193	117	169	
Cost of sales	(34)	(20)	(30)	(51)	(29)	(45)	
Gross profit	112	48	98	142	88	125	
Other income							
Interest	1,909	1,366	1,675	3,061	2,776	2,686	
Grant income	(172)	688	(151)	128	1,187	112	
Other	62	-	54	107	-	94	
Expenses			-			-	
Research & development	4,607	7,251	4,043	9,640	13,772	8,460	
Commercial	1,053	919	924	1,951	1,616	1,712	
Administration	1,411	973	1,238	2,464	1,933	2,162	
Total expenses	7,071	9,143	6,206	14,055	17,321	12,335	
Net loss before tax	(5,160)	(7,041)	(4,528)	(10,617)	(13,270)	(9,317)	
Income tax expense	8	6	7	16	8	14	
Net loss after tax	(5,168)	(7,047)	(4,535)	(10,633)	(13,278)	(9,332)	
Basic and diluted earnings (loss) per share	(0.027)	(0.040)	(0.024)	(0.058)	(0.075)	(0.051)	
Depreciation & amortisation	260	238	228	519	455	455	
Fair value of options issued under employe	1,042	308	914	1,681	629	1,475	

# **Balance Sheet Data**

		As at	
	31-Dec-07	30-Jun-07	31-Dec-07
	A\$	A\$	US\$(1)
Cash and cash equivalents	120,844	76,182	106,053
Plant & equipment	5,435	3,521	4,770
Intangible assets	1,194	1,239	1,048
Total assets	130,403	82,712	114,442
Total liabilities	(3,264)	(6,089)	(2,864)
Total shareholders' equity	127,139	76,623	111,577

# Cash Flow Data

	Three months ended		Year-to-date			
	31-Dec-07	31-Dec-06	31-Dec-07	31-Dec-07	31-Dec-06	31-Dec-07
	A\$	A\$	US\$(1)	A\$	A\$	US\$(1)
Cash flows from operating activities	(4,588)	(6,516)	(4,026)	(12,311)	(11,072)	(10,804)
Cash flows from investing activities	(1,469)	(427)	(1,289)	(2,551)	(876)	(2,239)
Cash flows from financing activities	59,497	23	52,215	59,540	180	52,252
Net increase (decrease) in cash held	53,440	(6,920)	46,899	44,678	(11,768)	39,209

### Share Data

	Ordinary Shares As at		American Depositary Shares As at	
	31-Dec-07	30-Jun-07	31-Dec-07	30-Jun-07
Ordinary shares on issue	194,489	177,949	12,966	11,863
Options over ordinary shares outstanding	11,552	9,836	770	656
(1) Convenience translation into U.S. dollars from Australian dollars based upon rate on December 31, 2007				