pharmaxis

Quarterly Report to Shareholders

Issue 31 | April – June 2011

Pharmaxis Ltd ABN 75 082 811 630

Producing human healthcare products to treat and manage respiratory diseases

Overview of Pharmaxis

The Business
Pharmaxis is a specialty pharmaceutical company with activities spanning product research & development through to manufacture, sales and marketing. The company's therapeutic interests include lung diseases such as cystic fibrosis, asthma, bronchiectasis and chronic obstructive pulmonary disease.

Based in Sydney, Australia, Pharmaxis manufactures its two lead products for commercial sale, clinical trials and for compassionate use.

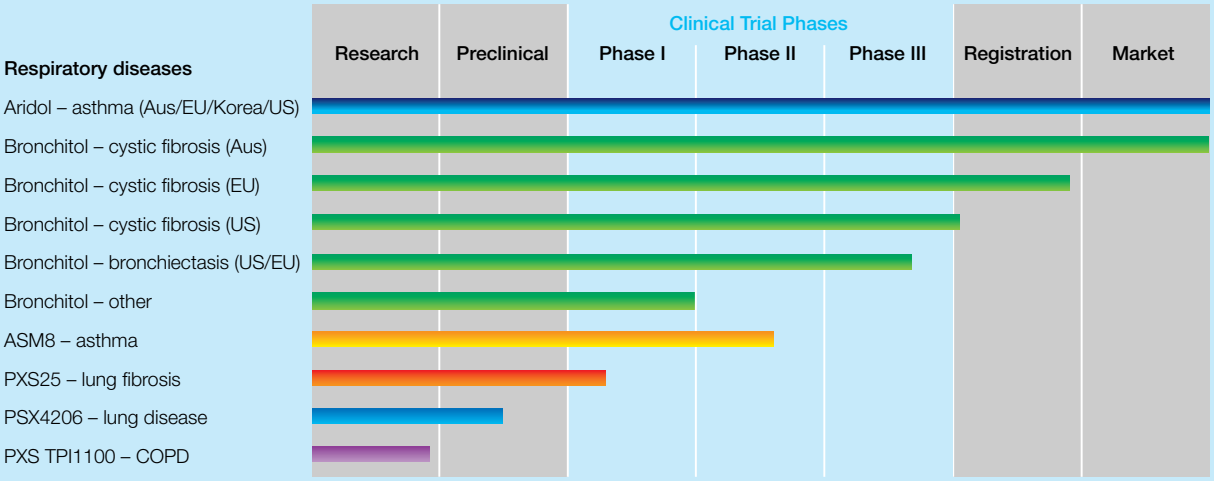
Aridol
The first product, Aridol® (mannitol bronchial challenge test) is registered for sale and is marketed in Australia, Europe, South Korea and the United States. Aridol is designed to assist in the detection of hyper-responsive, or twitchy airways, which is one of the hallmarks of asthma. Aridol's approvals followed the completion of two large Phase III trials involving over 1,100 participants.

Bronchitol
The second product, Bronchitol® has completed two regulatory Phase III trials for cystic fibrosis involving 600 patients and has been approved for marketing in Australia and is in marketing approval review in Europe. An additional Phase III trial in bronchiectasis is underway.

ASM8
This new drug for the treatment of asthma has completed a number of clinical trials in people affected by allergic asthma and it is currently in a Phase II clinical trial.

PXS25
This drug has been developed for the treatment of lung fibrosis and is currently in Phase I clinical trials.

Pharmaxis Product Development at June 2011



Front cover: Respiratory disease requires daily management.

CEO Report

The last time I wrote in the quarterly report to shareholders, I commented that the company was approaching a period of change. At that time, of course, I was expecting to receive an approval to market Bronchitol for cystic fibrosis in Europe and was preparing to transition the company from a drug developer to an operating business concerned with cash flow. As we now know, that has not yet transpired and we are currently at the beginning of the Bronchitol re-examination process. While the delay in launching Bronchitol in Europe incurred by this turn of events has certainly been frustrating, the main thing to bear in mind is that Bronchitol is a drug that has helped very many people with their disease, and that, for some people, their experience on Bronchitol clearly and fundamentally transforms the way they live their life. We are in detailed discussion with the European regulators on our marketing application for Bronchitol with a view to making it available to patients in Europe as soon as possible.

It is our responsibility to convince the regulator that Bronchitol is safe and effective and suitable to be released to the general public and we have not yet achieved that objective. From here, we begin a re-examination process that brings in two new reviewers and an expert scientific advisory group, to assist with the re-examination and provide guidance to the Committee for Medicinal Products for Human Use. The re-examination centres on the grounds for the original rejection, which reflected uncertainty around the consistency of the lung function changes across different age groups, the magnitude of the lung function changes and the safety of Bronchitol.

First new drug for CF to tackle lung dehydration

Bronchitol is the first in a new class of drugs designed to improve airway hydration and improve the clearance of thick, tenacious mucus. In spite of this first opinion from the European regulator, Bronchitol has not stopped benefiting people and, we believe, provides a safe alternative treatment choice in a complex disease where multiple treatment modalities have unquestionably improved life expectancy.

We are greatly encouraged by letters of support from patients currently on Bronchitol and are committed to working as diligently as we can to make Bronchitol available to the cystic fibrosis community in Europe.

In the meantime and in addition, we continue to progress other aspects of the business and some of those activities are contained within this report.

Alan D Robertson, Chief Executive Officer

Second Quarter Highlights

EU marketing application for Bronchitol remains the focus

- Bronchitol receives a negative opinion from EU regulator
- Pharmaxis files request for re-examination of Bronchitol in Europe
- Pharmaxis files revised reimbursement documents in Australia

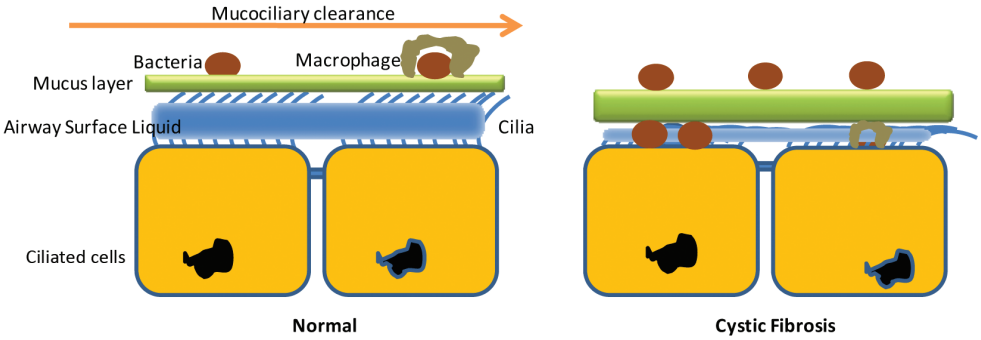
Forthcoming Events

- The European marketing application for Bronchitol concludes
- The US marketing application for Bronchitol is submitted to the FDA
- Next generation Bronchitol device ready for clinical study

Bronchitol

The problem of retained mucus secretions in the lung is not unique to cystic fibrosis, although it is probably in this disease that the problem is most manifest, and most persistent. Bronchitol was designed to rehydrate the airways and restore the mucociliary clearance system. A clearance system that has become impaired by one means or another. In the case of cystic fibrosis, it is a genetic defect that causes a reduced airway surface liquid and in the case of adult chronic bronchitis it is often cigarette smoking. In the case of bronchiectasis, the origin of the condition is often unknown but sometimes it is caused by pneumonia or a fungal infection.

SURFACE LINING OF THE LUNG



Defective mucus clearance

Mucociliary clearance is an important primary defence mechanism of the lung that protects it from the effects of inhaled pollutants, allergens, and pathogens. The mucociliary apparatus consists of three functional compartments; that is, the cilia, a protective mucus layer, and an airway surface liquid layer, which work in concert to remove inhaled particles from the lung.

Mucociliary dysfunction is a common feature of chronic airway diseases in humans. In this situation, the lungs produce excessive amounts of secretions that overwhelm ciliary clearance and obstructs airways, causing serious complications in diseases such as asthma, cystic fibrosis, bronchiectasis and chronic obstructive pulmonary disease. If this delicate balance between adequate mucus production and mucus clearance is impaired then problems will inevitably ensue. Excessive, poorly cleared mucus can become trapped in the lung and become the nucleus for bacterial colonisation of the lung that further exacerbates the problem. For the patient with this condition, keeping lungs clear of mucus and infectious agents becomes a daily challenge. Chronic bronchitis has been defined clinically as the presence of chronic cough and sputum production for 2 months in two consecutive years and is a major cause of death throughout the world. In the case of cystic fibrosis, chronic cough and sputum production occurs every day, of every month, of every year of the patient's life.

A drug that addresses the fundamental problem of defective mucociliary clearance would be of tremendous benefit in a variety of clinical situations. Bronchitol is such a drug.

Bronchitol has been most extensively studied in patients with cystic fibrosis but there are active clinical programmes in progress in bronchiectasis and detailed plans have been assembled to study the effect of Bronchitol in other diseases such as chronic bronchitis.

Cystic fibrosis clinical trials completed and presented

Cystic Fibrosis

Two Phase III clinical trial have been completed in patients with cystic fibrosis and the drug is now available in Australia and a marketing authorization application is in progress in Europe and is being assembled for the United States. The two clinical trials demonstrated that Bronchitol was effective at improving lung function; effective at increasing mucus clearance and effective in reducing exacerbations caused by bacterial infections.

Bronchitol for cystic fibrosis in Europe

Bronchitol has been under review by the European regulatory authorities since 18 November 2009 and it is a designated orphan medicinal product in Europe. In June, the European Committee for Medicinal Products for Human Use (CHMP) determined that, in its opinion, and at this time, the benefits of Bronchitol had not been established and that there was a risk of adverse events such as bronchoconstriction and coughing up blood (haemoptysis) associated with Bronchitol's use. The CHMP were of the opinion that this risk outweighed the benefits of Bronchitol and, on these grounds, the marketing application was refused.

Effectiveness of Bronchitol

The lung function improvements following Bronchitol treatment at 6 months and also at 12 months are clinically important in the context of the current average rate of decline in lung function of 0.5 to 1% per year. An impact on preventing the annual decline in lung function for an individual cystic fibrosis patient is, in most cases, the goal of the treating physicians. As with other respiratory drugs for cystic fibrosis and drugs in general, the effectiveness of Bronchitol as measured by lung function changes differed between patients, with some patients showing greater improvements than others. Importantly, the average, overall reduction in exacerbations of 29% is highly relevant and clinically meaningful to the patients. Mucus clearance was also significantly enhanced.

Safety of Bronchitol

Haemoptysis is a consequence of cystic fibrosis and the levels reported in the clinical trials were consistent with background levels. Minor hemoptysis, that is, blood streaking in sputum, is relatively common and has been reported in up to 60% of adults with cystic fibrosis so it can be difficult to determine true drug effects. There were no reported bronchoconstriction events associated with Bronchitol's use over and above those expected for administering a drug to the lungs. Both haemoptysis and bronchoconstriction are currently managed effectively in clinical practise and, with Bronchitol, the rates are consistent with any number of common respiratory medications.

Re-examination of EU opinion

The task ahead for the company during the re-examination of the CHMP opinion on the marketing authorisation for Bronchitol process is clear and we are now in the early stages of that process. To assist with this process, two new reviewing countries will be appointed and an expert scientific advisory group will be convened to provide advice and to make a recommendation to the CHMP. This expert scientific advisory group will include clinicians practising in the field and will be able to provide an experts view on the risks and benefits associated with the use of Bronchitol.

This process of re-examination and calling on expert advice is not unusual during the prosecution of a marketing application for a new drug in Europe and is not uncommon in situations where the disease is rare and affects a relatively small number of people—such as cystic fibrosis. This was the route that the last new drug to treat cystic fibrosis went down before it was recommended for approval and this occurred in 2009.

The re-examination process is efficient and we expect it to conclude next quarter. In the event that Bronchitol receives a positive opinion at the conclusion of the re-examination we plan to launch the product in Europe during the first half of next year. Plans are well advanced for the European launch; commercial support is being provided by the Quintiles organisation and the initial focus will be the markets of Germany and the UK.

Bronchitol for cystic fibrosis in the USA

The United States represents the largest national market for Bronchitol for cystic fibrosis with over 30,000 patients managed through 150 specialist centres. The delay in receiving marketing approval in Europe for Bronchitol has had a flow on consequence for our marketing submission to the US regulatory authority (FDA). While much of the work

Bronchitol US NDA in preparation

in assembling the New Drug Application (NDA), or marketing application, has been completed and we have dialogued with the FDA on a number of occasions, the outcome of the European application will have a bearing on the strategic focus of the NDA. Accordingly, the NDA will not be submitted until the outcome of the EU marketing application is finally determined.

Although the number of patients is small the clinical need in cystic fibrosis remains real and compelling. Even with the introduction of new antibiotics and extensive physiotherapy, the average age at which a cystic fibrosis patient loses their life today is in the mid-20's.

Bronchitol for cystic fibrosis in Australia

Bronchitol reimbursement application

An application to support reimbursement of Bronchitol in Australia has been submitted to the Pharmaceutical Benefits Advisory Committee (PBAC). This is a re-submission based on feedback from the PBAC earlier in the year. The PBAC makes recommendations to the government on what medicines should be listed on the Pharmaceutical Benefits Scheme (PBS) to provide timely, reliable and affordable access to Bronchitol for patients with cystic fibrosis. In the meantime, Bronchitol is provided to some eligible patients through a Physician Familiarisation Programme. The PBAC are scheduled to finalise their opinion on the Bronchitol re-submission during the December quarter.

Bronchitol for bronchiectasis

Phase 3 trial closing on full recruitment

"Bronchiectasis can be categorized as a chronic obstructive pulmonary disease manifested by airways that are inflamed and easily collapsible, resulting in air flow obstruction with shortness of breath, impaired clearance of secretions (often with disabling cough), and occasionally hemoptysis. Severe cases can result in progressive impairment with respiratory failure." This definition of bronchiectasis comes from medscape (*http://emedicine.medscape.com/article/296961-overview#a0101*).

However it is defined, bronchiectasis is a serious condition of the lung affecting as many as 600,000 people in the US and Europe and has a major impact on patients well being and quality of life. There are no drugs approved for treatment and as a consequence, there is no accepted approval path for new drug developers to follow. Consequently, we embarked on two Phase III clinical trials with different objectives and different primary endpoints. The first of these trials was completed some time ago and the second trial is now actively recruiting new patients.

Bronchitol used for bronchiectais

The first trial examined quality of life and mucus clearance over 3 months treatment and, in addition to these and other outcomes, the second trial is examining the extent to which Bronchitol can reduce the number of infectious episodes over a 12 month period. We expect that over time Bronchitol will improve the overall health and hygiene of the lung through regular and effective clearing of mucus. As a consequence of the reduction in mucus and associated inflammation, the frequency of bronchiectasis related pulmonary exacerbations, or infections, and the need for antibiotic treatment should fall.

The trial is recruiting steadily and involves the participation of nearly 100 hospitals throughout the world including a large number of centres in the USA. Some of the earlier subjects have completed the trial, however, the full results will not be known until the first quarter of 2013. This trial represents one of the largest undertaken in bronchiectasis and will provide a large and important database of information that will impact the understanding of the condition, and the way it is managed, for many years to come.

Bronchiectasis patients on compassionate use

The purpose of the current Phase III trial is to provide sufficient data to support a marketing application so that the drug can be made available around the world for people with bronchiectasis. It is a fact that trials can, and do, take a long time to complete, particularly for new drugs to treat chronic conditions and the regulatory review process is often protracted. Accordingly, with the assistance of the international regulatory agencies, Bronchitol is now made available on a compassionate use basis to ex-trial participants. Some patients have been taking Bronchitol to treat their bronchiectasis for many years.

Earlier clinical trials and the current compassionate use programme have provided feedback that Bronchitol is safe and of great benefit to many people and we have a firm expectation that this second Phase III trial will confirm this feedback.

Aridol

Aridol is now sold in Australia, Korea, Europe and the United States. A product code has not yet been assigned for Aridol in the US, however, it is expected to be received next quarter, which should ensure full reimbursement for conducting the test. In the US, Aridol is being marketed to select pulmonary testing laboratories and specialist respiratory physicians. There are around 1,500 pulmonary laboratories that represent a discrete target market for Aridol and the current focus is on formulary, pricing and reimbursement issues. In addition, 2,000 specialist clinicians have been identified for the first phase of marketing.

The sales for the current quarter were 21% improvement on the comparable quarter last year.

Financial Overview of the Quarter

Pharmaxis finished the quarter with $44 million in cash.

Research and development dominate expenses

Research and development expenses of $9.1 million for the June 2011 quarter compares to $8.9 million in the June 2010 quarter and $7.8 million in the March 2011 quarter. Clinical trials and manufacturing development account for 41% and 32% respectively of expenditure in the current quarter. The increased expenditure in the current quarter compared to March 2011 is attributable to increased clinical trials costs associated with our Phase III study in bronchiectasis.

Commercial expenses of $2.8 million compares to $1.9 million in the June 2010 quarter and $2.7 million in the March 2011 quarter. Expenditures have increased in the current year as the company has launched Aridol in the US, Bronchitol in Australia, and prepared for the launch of Bronchitol in Europe.

Administration expenditure of $1.2 million compares to $1.6 million in the June 2010 quarter and was unchanged from the March 2011 quarter.

Operating activities used cash of $10.0 million compared to $7.8 million in June 2010 and $10.2 million in the March 2011 quarter. Investing activities used cash of $1.7 million compared to $2.1 million in June 2010 and $0.3 million in the March 2011 quarter. Investing activities in the current quarter included the second and final payment of $1.5 million for the purchase of a suite of early stage inhalation device intellectual property, the first payment for which was made in the June 2010 quarter.

Financial Statement Data – Unaudited
(International Financial Reporting Standards)

('000 except per share data)

Income Statement Data

	Three months ended		Twelve months ended	
	30-Jun-11	30-Jun-10	30-Jun-11	30-Jun-10
	A$	A$	A$	A$
Revenue from sale of goods	233	192	910	828
Cost of sales	(65)	(75)	(342)	(307)
Gross profit	168	117	568	521
Interest	615	1,002	3,083	3,935
Other income	134	328	465	616
Expenses				
Research & development	(9,096)	(8,853)	(34,632)	(35,140)
Commercial	(2,834)	(1,932)	(9,163)	(5,657)
Administration	(1,167)	(1,550)	(5,171)	(9,715)
Finance expenses	(212)	(198)	(859)	(854)
Total expenses	(13,309)	(12,533)	(49,825)	(51,366)
Loss before income tax	(12,392)	(11,086)	(45,709)	(46,294)
Income tax expense	16	(9)	(49)	(51)
Loss for the period	(12,376)	(11,095)	(45,758)	(46,345)
Basic and diluted earnings (loss) per share – $	(0.054)	(0.049)	(0.202)	(0.210)
Depreciation & amortisation	1,453	1,185	5,026	3,021
Fair value of securities issued under employee plans	385	623	1,567	2,495

Balance Sheet Data

	As at	
	30-Jun-11	30-Jun-10
	A$	A$
Cash and cash equivalents	44,343	85,787
Property, plant & equipment	30,570	32,537
Intangible assets	15,954	17,702
Total assets	94,572	140,767
Total liabilities	(23,742)	(25,751)
Net assets	70,830	115,016

Cash Flow Data

	Three months ended		Twelve months ended	
	30-Jun-11	30-Jun-10	30-Jun-11	30-Jun-10
	A$	A$	A$	A$
Cash flows from operating activities	(9,971)	(7,785)	(37,366)	(39,683)
Cash flows from investing activities	(1,743)	(2,140)	(2,883)	1,142
Cash flows from financing activities	(195)	(280)	(758)	(772)
Impact of foreign exchange rate movements on cash	(32)	88	(437)	107
Net increase (decrease) in cash held	(11,941)	(10,117)	(41,444)	(39,206)

Share Data

	Ordinary Shares as at	
	30-Jun-11	30-Jun-10
Ordinary shares on issue	228,290	225,410
Options over ordinary shares outstanding	12,727	13,155

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Contact Details

Further information on Pharmaxis can be obtained from www.pharmaxis.com.au or by contacting David McGarvey, Chief Financial Officer:

Telephone: +612 9454 7200
david.mcgarvey@pharmaxis.com.au

Pharmaxis Ltd
ABN 75 082 811 630
20 Rodborough Road
Frenchs Forest NSW 2086

ASX Code: PXS
ADR Code: PXSLY