Quarterly Shareholder Update – December 2016

Looking forward to 2017

Dear Shareholder,

Pharmaxis finished 2016 well positioned to realize further significant value on partnering agreements negotiated in 2014/2015. All aspects of the business have momentum and are set to deliver an exciting and productive 2017.

Boehringer Ingelheim has advised that it is planning to commence a phase 2 clinical trial of the Pharmaxis drug PXS-4728A in the liver disease NASH in the second quarter of 2017. The commencement of that trial will trigger a milestone payment to Pharmaxis of €18 million (~A$25m). Boehringer acquired this drug from Pharmaxis in May 2015, and after completing all the necessary steps preparing for clinical trials has obtained Fast Track Designation from the US Food and Drug Administration for its NASH development program. Boehringer is a significant global player in metabolic disease and the commitment the company is demonstrating to developing PXS-4728A in this valuable market is very reassuring. On another positive note, Boehringer has reported on plans for a second indication for PXS-4728A. A second indication attracts the same overall milestone value as the first indication but with more weighting given to milestones closer to approval. The timing of the start of the phase 2 study and the associated milestone payment to Pharmaxis have not yet been advised.

Realizing an additional value creation point for our partnered drug to Boehringer will further validate the Pharmaxis business model. Our Drug Discovery team has wasted no time in developing another asset that has great potential. I am delighted to report a major step forward in our LOXL2 inhibitor program where, together with our UK collaborator Synairgen, we have selected two lead compounds which have now commenced preclinical toxicology studies. This means that the discovery phase has been completed and the two candidates have cleared all of the necessary pre-clinical tests. The toxicology studies started recently are the last step before we commence human phase 1 clinical studies in the second half of 2017. We intend to partner these drugs after phase 1 trials and this latest advance was met with great interest by the senior scientific and business development representatives of the many large pharmaceutical companies that I met at the recent JP Morgan conference in San Francisco. They are looking for novel drugs that will complement and differentiate existing pipelines in liver and lung fibrosis and our LOXL2 program fits nicely into that place. We expect to enter more formal discussions with a number of companies later in the year. Deal values for phase 1 assets in fibrosis remain very high with Gilead, Allergan and BMS all acquiring anti fibrotic drug programs in the last 6 months with upfront payments of over US$100m and total deal values often in excess of US$1 billion.

Meanwhile our cystic fibrosis business has also made progress in two key markets. We followed up on the announcement from September last year that Bronchitol had been approved to treat cystic fibrosis patients in Russia with an order for A$640,000, and this first shipment left our warehouse in January. In the US market a third clinical trial of Bronchitol which is designed to meet marketing requirements for the FDA is closing in on completion with results from the multicenter trial sites expected to be reported in the second quarter of 2017.

I am pleased to say that careful planning and a clear focus have ensured the business is on track for a very positive year ahead and I look forward to keeping you updated.

The report below outlines our progress in more detail.

Sincerely,

Chief Executive Officer

Drug discovery

Boehringer Ingelheim planning to commence phase 2 NASH trial in quarter 2 2017, obtains FDA Fast Track Status for NASH in US and outlines plans to develop a second indication

Boehringer acquired PXS-4728A in May 2015 to develop initially as a treatment for non-alcoholic steatohepatitis (NASH). Under the terms of our agreement Boehringer has total responsibility for the development program and is required to make milestone payments to Pharmaxis as PXS-4728A progresses towards approval as well as other sales related payments post approval.

Over the last 6 months Boehringer has concluded several non-clinical safety and pharmacokinetic studies and successfully scaled up drug synthesis.

A phase 2 trial in NASH is scheduled to commence in the second quarter of 2017, the start of which will trigger a milestone payment to Pharmaxis of approximately A$25 million.

Boehringer opened an Investigational New Drug (IND) Application in the US and Fast Track Designation was granted by the FDA. The Fast Track program facilitates the expedited development and review of new drugs or biologics that are intended to treat serious or life-threatening conditions and demonstrate the potential to address unmet medical needs. This designation will allow for more frequent interactions with the FDA to discuss study design and further clinical development towards registration.

Boehringer has also provided a target profile and the clinical development steps for a second indication. The timing of the commencement of a phase 2 study is yet to be advised. Under our agreement with Boehringer, Pharmaxis will receive a significant payment on commencement of a phase 2 study in a second indication. Total milestones through to approval for a second indication are in aggregate the same as for the first indication, but weighted more towards the latter stage of development and approval.

LOXL2 inhibitor program progresses preclinical candidates into toxicology studies

The Pharmaxis drug discovery group has developed a small number of selective inhibitors to the lysyl oxidase type 2 enzyme (LOXL2) utilising the amine oxidase platform that delivered PXS-4728A. LOXL2 is important in the liver disease NASH, cardiac fibrosis, kidney fibrosis, the fatal lung disease idiopathic pulmonary fibrosis (IPF) and also plays a role in some solid cancers.

The lead optimisation work of the chemistry team is complete. Pharmaxis is now working with its collaborator, UK biotechnology company Synairgen plc (LSE: SNG) to progress the drug candidates into the clinic. One drug has almost finished 28 day GLP toxicology studies while a second drug will start in a couple of weeks. Our aim is to be phase 1 ready with one or more compounds by mid-2017.

Pharmaxis and Synairgen at JP Morgan

The Pharmaxis CEO Gary Phillips and his counterpart at our UK collaborator Synairgen plc, Richard Marsden, met with a number of large pharmaceutical companies attending the 2017 JP Morgan Conference held each January in San Francisco. The role of LOXL2 in fibrotic diseases such as NASH and pulmonary fibrosis continues to be of significant interest to many large companies and they were very keen to understand our scientific progress and timing of planned partnering.

Drug development pipeline – other programs

Other research initiatives at an earlier stage of development include:

- SSAO/MAOB inhibitor program with potential anti-inflammatory application in a number of indications. We have a lead molecule for this program and are focusing on identifying the appropriate indication before proceeding to formal preclinical development and phase 1 studies.
- LOX inhibitor program with potential anti-fibrotic application in scarring.
- SSAO/MPO inhibitor program with potential anti-inflammatory application in respiratory and cardiovascular diseases.

Other drug discovery collaborations

Pharmaxis has research collaborations with a number of leading universities and academics working on various aspects of our drug development pipeline.

During the quarter our collaboration with the Heart Research Institute in Sydney was awarded three year funding by the Science and Industry Endowment Fund STEM+ Business Fellowship Program to investigate treatment of cardiac fibrosis using Pharmaxis' proprietary drug development platform. Our large repertoire of selective oxidase inhibitors (LOXL, SSAO, MAOB and MPO) allows the collaboration to study the role of the different enzymes in cardiac fibrosis and provides opportunities for future treatments in an area of high unmet medical need.

Work by the Garvan Institute of Medical Research with whom we are collaborating in cancer research is to be published in the peer-reviewed open access medical journal Oncotarget. The manuscript "Pre-clinical evaluation of small molecule LOXL2 inhibitors in breast cancer" describes the role of lysyl oxidases (LOX) and LOXL2 in tumour growth and metastases using, for the first time, small molecules that provide complete and selective inhibition of the enzymatic activity.

Bronchitol for cystic fibrosis

Bronchitol® is an inhaled dry powder for the treatment of cystic fibrosis (CF) and has been the subject of two large scale global clinical trials conducted by Pharmaxis. The product is approved and marketed in Europe, Russia, Australia and several other countries.

United States

A third international multicentre clinical trial (CF303) designed to meet the remaining clinical requirements of the US Food and Drug Administration (FDA) is currently underway. The trial is being conducted in 126 sites across 21 countries and has enrolled 423 adult CF patients. It completed recruitment in July 2016 and more than 90% of patients have now completed the study. The results are expected to be reported in the second quarter of 2017.

Pharmaxis has partnered with Chiesi Farmaceutici SpA (Chiesi) to conduct CF303. Under the terms of the agreement and following a positive outcome of the trial, Chiesi will have responsibility for completing the New Drug Application with the FDA and the commercialisation of Bronchitol in the United States. We continue to work closely with Chiesi on all aspects of securing US marketing approval for Bronchitol.

Subject to a positive trial outcome, a decision on approval can be expected in 2018.

Chiesi is responsible for funding up to US$22 million of the cost of the trial, the total cost of which is expected to be approximately US$26 million. Milestones of up to US$25 million and mid to high teen percentage royalties are payable to Pharmaxis including US$10 million on the launch of Bronchitol.

Europe

In the EU, Chiesi has been Pharmaxis' exclusive distributor for the UK and Germany since 1 June 2015. Chiesi is an experienced and respected partner in key global markets and sells Bronchitol as part of its cystic fibrosis portfolio.

Having built local European inventory levels in the previous year, Chiesi has since only purchased smaller quantities with no sales to Chiesi in the December 2016 quarter. However in January 2017 Pharmaxis shipped a Bronchitol order valued at $850,000 to Chiesi for the UK and German markets. Ongoing Bronchitol sales by Pharmaxis will continue to reflect the timing of Chiesi orders to replenish inventory rather than in-market use of the product.

Chiesi unit sales in the December quarter in the UK and Germany were approximately 10 percent higher than both the September 2016 quarter and the average level of sales before they were appointed, and 20 percent higher than sales in the December 2015 quarter.

Pharmaxis also sells Bronchitol in Austria, Denmark and Norway via its German based logistics provider, with sales totaling $33,000 in the December 2016 quarter, $86,000 for the half year.

On 11 January 2017 the European Commission adopted a decision for the “renewing and amending the marketing authorisation for the medicinal product for human use "Bronchitol - Mannitol"”. All conditions attached to the original approval of Bronchitol in the EU have now been satisfied and the authorisation is subject only to ongoing safety and regulatory compliance.

Other territories

Bronchitol is sold in Australia by Pharmaxis and in Turkey and Russia by exclusive distributors. Sales for the quarter and half year were as follows:

	Three months			Six months	
	Dec 16	Dec 15	Sep 16	Dec 16	Dec 15
Australia	201	161	188	389	355
Turkey	92	-	23	115	-

Sales into Turkey continue to grow following initial sales in the September quarter and a further A$90,000 was shipped in January 2017.

Following the receipt of Russian approval in late September 2016 the first order worth A$642,000 was shipped from Frenchs Forest in January 2017.

North American Cystic Fibrosis Conference

The 30th Annual North American Cystic Fibrosis Conference was held in late October in Orlando, Florida. The conference serves as a collaborative forum to advance research for the treatment and cure of CF and this conference included a poster presentation on the Pharmaxis phase 2 clinical trial in paediatric patients (reported in December 2015): “A phase II, randomised, double-blind, placebo-controlled, crossover study of dry powder mannitol in children with cystic fibrosis (subgroup analysis).”The lead author was Professor Christiane De Boeck.

The poster concluded:

“Inhaled mannitol (“IM” – Bronchitol) provides rapid and significant incremental benefits in lung function in children and adolescents irrespective of rhDNase (Pulmozyme®) use, age or disease severity. For all subgroups the benefits in respiratory function consistently favoured IM. In the IM group, post-treatment sputum weight was significantly higher than in the placebo which is consistent with the postulated mechanism of action of IM and enhanced mucociliary clearance following administration of the drug.

AEs (adverse events) were less common in the mannitol group and importantly, IM was associated with a reduced incidence of pulmonary exacerbation AEs. These data show that IM could provide significant benefits to patients aged 6-17 years, a group which represent roughly half of all patients with CF.” (Clinical Trials.Gov: NCT 01883531).

Research collaboration with Woolcock Institute on novel cystic fibrosis therapy

In November Pharmaxis announced a research collaboration with Sydney’s prestigious Woolcock Institute of Medical Research to develop a novel inhalation therapy for the treatment of cystic fibrosis (CF).

The National Health and Medical Research Council (NHMRC) awarded a research grant of $421,545 for development and testing of the Orbital® Inhaler with a dry powder formulation of the antibiotic tobramycin. The Orbital inhaler is a

Pharmaxis invention which has been designed to deliver high-doses of dry powder drugs to the lungs in a more effective and convenient manner than existing technology.

The project brings together the acknowledged expertise of the Woolcock Institute and Pharmaxis in the field of cystic fibrosis. The ability to deliver antibiotics locally, using the Orbital device overcomes a number of challenges that are experienced in the clinic, and the clinical trial is likely to pave the way to better health outcomes and quality of life.

The Orbital is capable of delivering a high payload of antibiotics for the treatment of infection in cystic fibrosis patients. Current treatments for cystic fibrosis infection are via oral, intravenous or lengthy inhalation processes. This can lead to significant side effects, consequent poor patient compliance, and limited therapeutic efficacy. The Orbital circumvents these problems by providing a press-button, single use device containing the whole antibiotic dose that the patient can inhale over the number of breaths that are suitable to them.

This revolutionary approach to delivering antibiotics for CF has the potential to see an Australian innovation translated into a commercial product ready for late stage clinical trials and partnering.

A previous phase 1 clinical trial conducted by Pharmaxis has shown the Orbital can administer large amounts of dry powder to healthy subjects in one inhalation without compromising safety or tolerability.

Corporate

Investor briefing

In late November the Company held a briefing for institutional investors featuring a review of the competitive science in NASH and fibrosis by Professor Darren Kelly and a review of the commercial deal environment in NASH and fibrosis by Dr Anthony Brown. The presentation is available on the Pharmaxis website.

Taylor Collison initiates research coverage on Pharmaxis

On 30 November sharebroker and investment adviser Taylor Collison published an initiating report on Pharmaxis: “A Partnership Play with Effective Risk Mitigation”. The report was prepared by Elyse Shapiro and is available on the Pharmaxis website.

Bioshares includes Pharmaxis in model portfolio

In December 2016 Bioshares, the weekly publication providing independent investment research on Australian biotech, pharma and healthcare companies added Pharmaxis to its model portfolio with a rating of Speculative Buy – Class B.

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Financials

Key financial metrics

A$'000	Three months ended		Six months ended	
(unaudited)	**31-Dec-16**	**31-Dec-15**	**31-Dec-16**	**31-Dec-15**
Income statements				
Sales	793	1,643	1,690	3,727
Total revenue	1,900	4,551	6,910	9,372
Total expenses	(8,850)	(9,567)	(17,945)	(20,550)
Net profit (loss) after tax	**(6,950)**	**(5,016)**	**(11,035)**	**(11,185)**
Segment results – adjusted EBITDA	-	-		
Bronchitol & Aridol	(2,489)	(3,334)	(3,941)	(4,485)
New drug development	(1,303)	(863)	(2,421)	(1,847)
Corporate	(850)	(1,330)	(2,078)	(1,753)
Total	**(4,642)**	**(5,527)**	**(8,440)**	**(8,085)**
Statement of cash flows	-	-		
Cash inflow/ (outflow) from:	-	-		
Operations	(2,721)	(2,994)	(8,894)	(6,426)
Investing activities	(64)	(646)	(214)	(1,092)
Financing activities	(430)	(430)	(856)	(872)
Total cash used	**(3,215)**	**(4,070)**	**(9,964)**	**(8,390)**
Foreign currency exchange rate changes impact on cash	-	(319)	-	188
Cash at bank	**29,245**	**45,936**	**29,245**	**45,936**

Highlights

- Sales revenue for the quarter was lower than the comparable period primarily due to Chiesi reducing its inventory of Bronchitol, as discussed above. This was partially offset by increased Bronchitol sales in other territories. As also noted above the Company shipped product to Chiesi for the UK and Germany and also to its Russian distributor in January 2017.
- Total revenue for the quarter decreased predominantly because of the lower expenditure in relation to clinical trial CF303 which is reimbursable by Chiesi. As at 31 December 2016 Chiesi had contributed almost all of its US$22 million commitment to CF303.
- Underlying core expenses were mainly unchanged from the comparable period, however three specific items accounted for a net decrease in total expenses of $717,000.
    - Clinical trial expenses in relation to clinical trial CF303 decreased by $2.3 million

  - Foreign exchange gains of $0.9 million in the December 2015 quarter reversed to a loss in the current quarter of $1.3 million, including an unrealised gain for the December 2015 quarter of $1.2 million and an unrealised loss for the December 2016 quarter in relation to the financing agreement with NovaQuest.
  - Other expenses of $268,000 in the December 2015 quarter reversed to be a gain of $215,000 in the current quarter. The cost of inventory includes an allocation of overhead expenses from the income statement to the balance sheet. The higher level of activity in the quarter to manufacture Bronchitol for orders shipped in January resulted in a larger allocation of overhead than the previous period.
- Segment information provided below provides a useful overview of the business. Note that the decrease in the Corporate Adjusted EBITDA reflects foreign exchange losses of $306,000 in the December 2015 quarter and a gain of $77,000 in the December 2016 quarter.
- Closing cash for the quarter was $29.2 million. Cash used during the quarter was $3.2 million, $10 million for the half year.
- The Company has filed its R&D tax credit claim for the 2016 financial year and expects to receive its credit of $2.1 million in the March 2017 quarter.
- As noted above the Company also expects to receive approximately $25 million from Boehringer Ingelheim when it commences a phase 2 trial of PXS-4728A in the second quarter of 2017.

Additional financial information and commentary on the six months will be provided in the Company's Half Year Report scheduled to be filed with the ASX on 17 February 2017.

Segment information

A$'000	Segment information - three months ended							
(unaudited)	31-Dec-16				31-Dec-15			
Income statements	Bronchitol & Aridol	New drug developmt	Corporate	Total	Bronchitol & Aridol	New drug developmt	Corporate	Total
Revenue								
Sale of Bronchitol	318	-	-	318	1,129	-	-	1,129
Sale of Aridol & other	475	-	-	475	514	-	-	514
	793	**-**	**-**	**793**	**1,643**	**-**	**-**	**1,643**
Clinical reimbursement	725	-	-	725	2,226	-	-	2,226
Tax credit	-	-	-	-	-	-	-	-
Other revenue	6	106	85	197	-	253	90	343
	1,524	**106**	**85**	**1,715**	**3,869**	**253**	**90**	**4,212**
Expenses	-	-	-	-	-	-	-	-
Employee costs	(1,445)	(466)	(426)	(2,337)	(1,415)	(448)	(471)	(2,334)
Clinical trials	(1,628)	-	-	(1,628)	(3,961)	(44)	-	(4,005)
Drug development	-	(860)	-	(860)	-	(541)	-	(541)
Other expenses	(940)	(83)	(509)	(1,532)	(1,827)	(83)	(949)	(2,859)
Total expenses	(4,013)	(1,409)	(935)	(6,357)	(7,203)	(1,116)	(1,420)	(9,739)
Adjusted EBITDA	**(2,489)**	**(1,303)**	**(850)**	**(4,642)**	**(3,334)**	**(863)**	**(1,330)**	**(5,527)**

A$'000	Segment information - six months ended							
(unaudited)	31-Dec-16				31-Dec-15			
Income statements	Bronchitol & Aridol	New drug developmt	Corporate	Total	Bronchitol & Aridol	New drug developmt	Corporate	Total
Revenue								
Sale of Bronchitol	710	-	-	710	2,767	-	-	2,767
Sale of Aridol & other	980	-	-	980	960	-	-	960
	1,690	**-**	**-**	**1,690**	**3,727**	**-**	**-**	**3,727**
Clinical reimbursement	4,301	-	-	4,301	4,394	-	-	4,394
Tax credit	-	-	-	-	-	-	-	-
Other revenue	14	330	165	509	-	420	173	593
	6,005	**330**	**165**	**6,500**	**8,121**	**420**	**173**	**8,714**
Expenses								
Employee costs	(2,930)	(974)	(1,073)	(4,977)	(2,816)	(828)	(1,102)	(4,746)
Clinical trials	(5,398)	-	-	(5,398)	(6,278)	(97)	-	(6,375)
Drug development	-	(1,592)	-	(1,592)		(1,180)	-	(1,180)
Other expenses	(1,618)	(185)	(1,170)	(2,973)	(3,512)	(162)	(824)	(4,498)
Total expenses	(9,946)	(2,751)	(2,243)	(14,940)	(12,606)	(2,267)	(1,926)	(16,799)
Adjusted EBITDA	**(3,941)**	**(2,421)**	**(2,078)**	**(8,440)**	**(4,485)**	**(1,847)**	**(1,753)**	**(8,085)**

Income statements

A$'000	Three months ended		Six months ended	
(unaudited)	**31-Dec-16**	**31-Dec-15**	**31-Dec-16**	**31-Dec-15**
Revenue				
Revenue from sale of goods	793	1,643	1,690	3,727
Clinical trial cost reimbursements	724	2,226	4,301	4,394
Interest	185	339	409	658
Drug discovery service fee	106	253	330	420
Other	92	90	180	173
Total revenue	**$ 1,900**	**$ 4,551**	**$ 6,910**	**$ 9,372**
Expenses				
Employee costs	(2,563)	(2,422)	(5,455)	(5,233)
Administration & corporate	(529)	(648)	(1,065)	(1,153)
Rent, occupancy & utilities	(300)	(328)	(544)	(624)
Clinical trials	(1,628)	(4,005)	(5,398)	(6,375)
Drug development	(860)	(541)	(1,592)	(1,180)
Sales, marketing & distribution	(250)	(311)	(457)	(635)
Safety, medical and regulatory affairs	(318)	(505)	(693)	(913)
Manufacturing purchases	(419)	(535)	(733)	(900)
Other	215	(268)	526	(699)
Depreciation & amortisation	(765)	(766)	(1,523)	(1,516)
Foreign currency exchange gains & losses	(1,273)	934	(689)	(975)
Finance expenses	(160)	(172)	(322)	(347)
Total expenses	**(8,850)**	**(9,567)**	**(17,945)**	**(20,550)**
Net profit (loss) before tax	**(6,950)**	**(5,016)**	**(11,035)**	**(11,178)**
Income tax expense	-	-	-	(7)
Net profit (loss) after tax	**$ (6,950)**	**$ (5,016)**	**$ (11,035)**	**$ (11,185)**