Investor Presentation

Gary Phillips CEO

26 July 2019

Forward looking statement

This document contains forward-looking statements, including statements concerning Pharmaxis' future financial position, plans, and the potential of its products and product candidates, which are based on information and assumptions available to Pharmaxis as of the date of this document. Actual results, performance or achievements could be significantly different from those expressed in, or implied by, these forward-looking statements. All statements, other than statements of historical facts, are forward-looking statements. These forward-looking statements are not guarantees or predictions of future results, levels of performance, and involve known and unknown risks, uncertainties and other factors, many of which are beyond our control, and which may cause actual results to differ materially from those expressed in the statements contained in this document. For example, despite our efforts there is no certainty that we will be successful in partnering our LOXL2 program or any of the other products in our pipeline on commercially acceptable terms, in a timely fashion or at all. Except as required by law we undertake no obligation to update these forward-looking statements as a result of new information, future events or otherwise.

A business model generating a valuable pipeline in fibrotic and inflammatory diseases

Highly productive drug discovery engine

- Leverage small molecule expertise and amine oxidase chemistry platform
- 4 in house compounds through to phase 1 trials in 5 years
- Topical scar revision drug in final pre-clinical GLP tox studies before patient proof of concept study 2020

Clinical trials in high profile diseases

- Anti fibrosis / oncology drug successfully cleared initial phase 1 study
- Proof of concept trials in myelofibrosis and / or pancreatic cancer expected in 2020

Significant future cash flows from partnering deals

- IPF / NASH anti fibrotic drug in commercial partnering process
- Partnered drug with potential for $600m+ development milestones nears end of phase 2a in NASH and diabetic retinopathy

Experienced senior management team

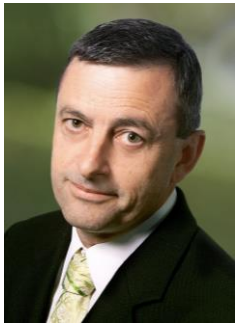
Significant experience in drug development, commercialisation and partnering

Gary Phillips – CEO

- more than 30 years of operational management experience in the pharmaceutical and healthcare industry in Europe, Asia and Australia
- joined Pharmaxis in 2003 and was appointed Chief Executive Officer in March 2013 at which time he was Chief Operating Officer
- previously held country and regional management roles at Novartis – Hungary, Asia Pacific and Australia

David McGarvey – CFO

- more than 30 years' experience building Australian based companies from inception to globally successful enterprises
- joined Pharmaxis as Chief Financial Officer and Company Secretary in December 2002
- previously Chief Financial Officer of the Filtration and Separations Division of US Filter (1998-2002), and Memtec Limited (1985-1998)
- commenced career at PricewaterhouseCoopers



Brett Charlton - Medical

- more than 25 years experience in clinical trial design and management
- author of more than 80 scientific papers
- founding Medical Director of the National Health Sciences Centre
- previously held various positions with the Australian National University, Stanford University, the Baxter Centre for Medical Research, Royal Melbourne Hospital, and the Walter and Eliza Hall Institute

Wolfgang Jarolimek – Drug Discovery

- more than 20 years' experience in pharmaceutical drug discovery and published more than 30 peer reviewed articles
- previously Director of Assay Development and Compound Profiling at the GlaxoSmithKline Centre of Excellence in Drug Discovery in Verona, Italy
- spent 8 years as post-doc at the Max-Plank Institute in Munich, Germany; Baylor College of Medicine, Houston, Texas; Rammelkamp Centre, Cleveland Ohio; and University of Heidelberg, Germany

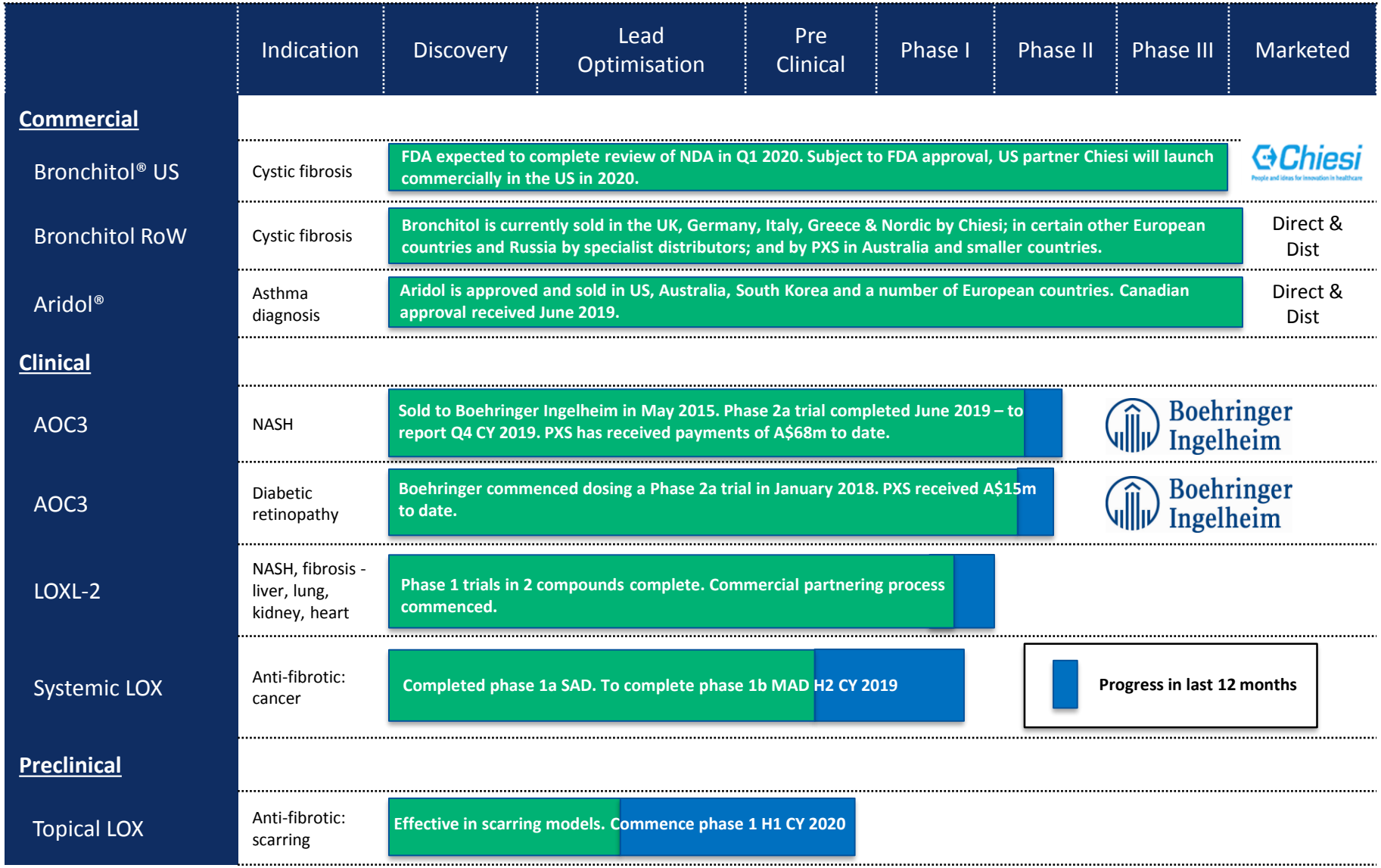
Kristen Morgan – Alliance Management

- more than 20 years' experience in the pharmaceutical industry having previously held a senior role in medical affairs at Sanofi-Aventis, and a commercial sales role at GlaxoSmithKline
- responsibility for alliance management and medical and regulatory affairs

Non Executive Directors

- **Malcolm McComas** – *Chair*
  - former investment banker
  - former MD Citi Group
- **Kathleen Metters**
  - former head of worldwide basic research at Merck
  - former CEO of biopharmaceutical company Lycera Corp
- **Will Delaat**
  - former CEO of Merck Australia
  - former chair of Medicines Australia
- **Edward Rayner**
  - over 20 years' experience in global capital markets

A broad pipeline with multiple opportunities

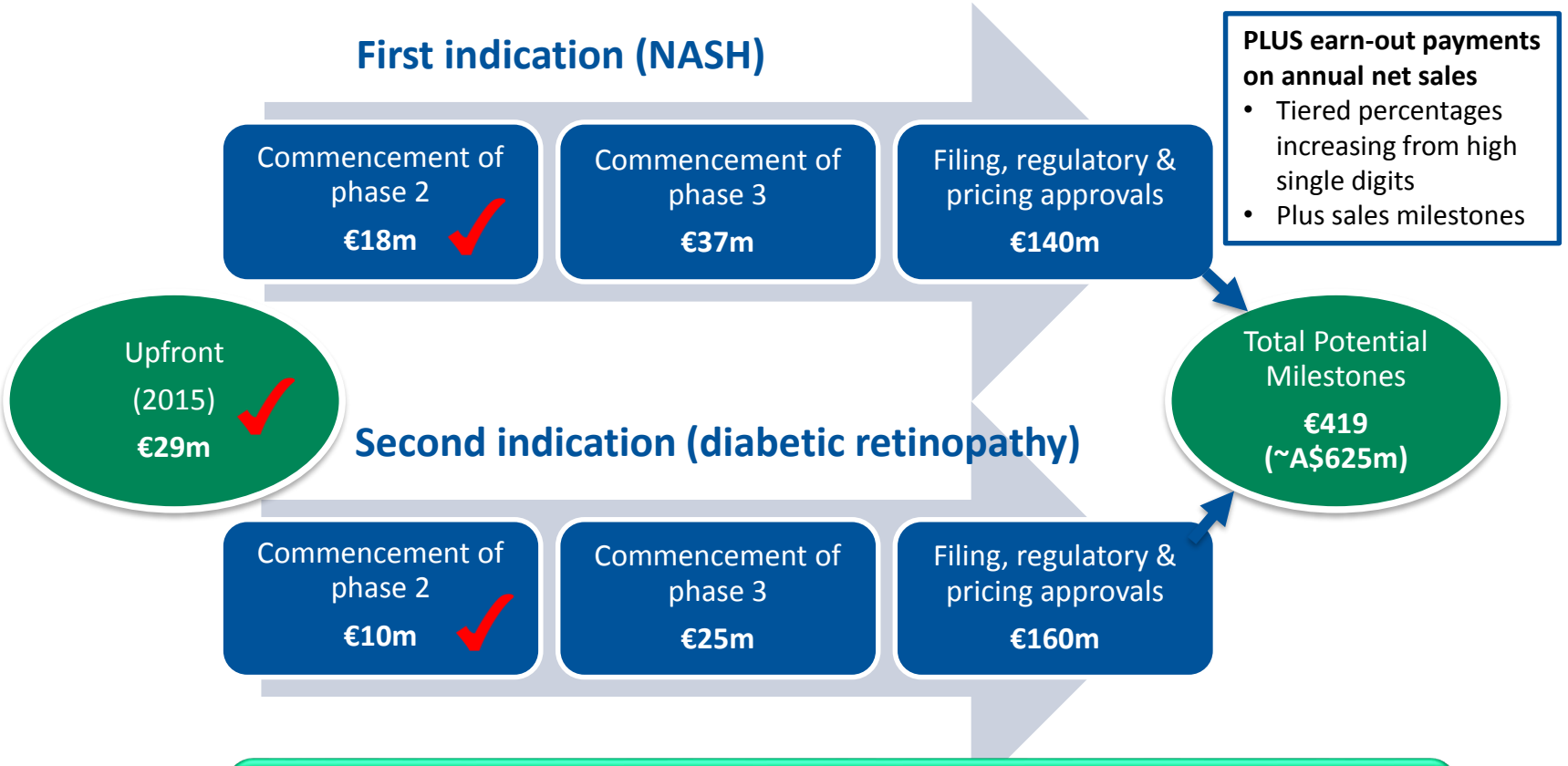


AOC3: amine oxidase copper containing type 3 inhibitor; LOXL-2 (lysyl oxidase like 2) inhibitor (also inhibits LOX-3); LOX: pan (all) lysyl oxidase inhibitor; Systemic: oral drug; Topical: drug to be applied directly to the skin.

pharmaxis

AOC3: Boehringer Ingelheim deal

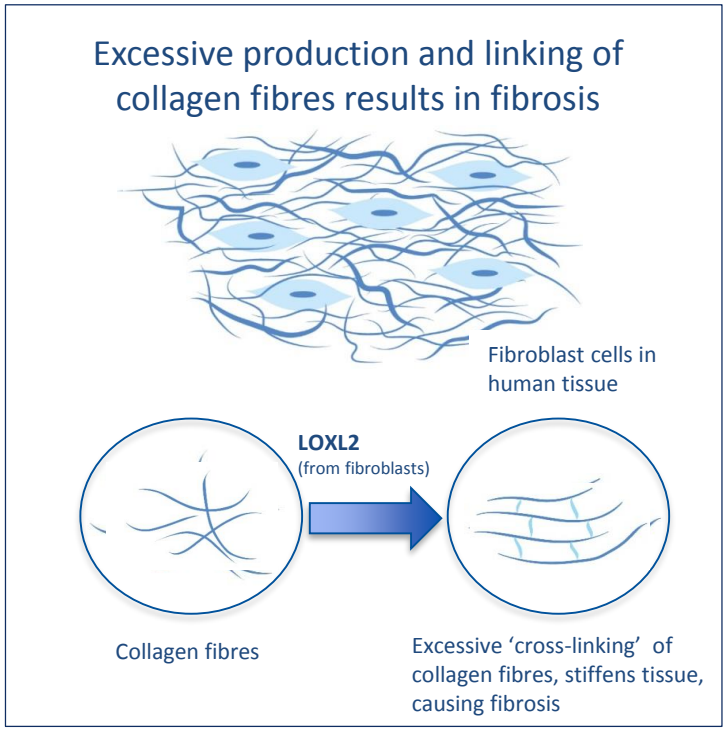
Deal structure illustrates value generating potential of Pharmaxis business model



- €57m (A$83m) already received
- No further investment required from Pharmaxis
- Commercial go/no go for phase 2b in NASH expected Q4 2019

LOXL2 inhibition program in partnering process

for NASH, IPF & other high value fibrotic diseases



Potential indications / market size:

- NASH / Liver Fibrosis; $35b[1]
- Pulmonary fibrosis (IPF); $3.5b[2]
- Kidney fibrosis
- Cardiac fibrosis

Significant market opportunity

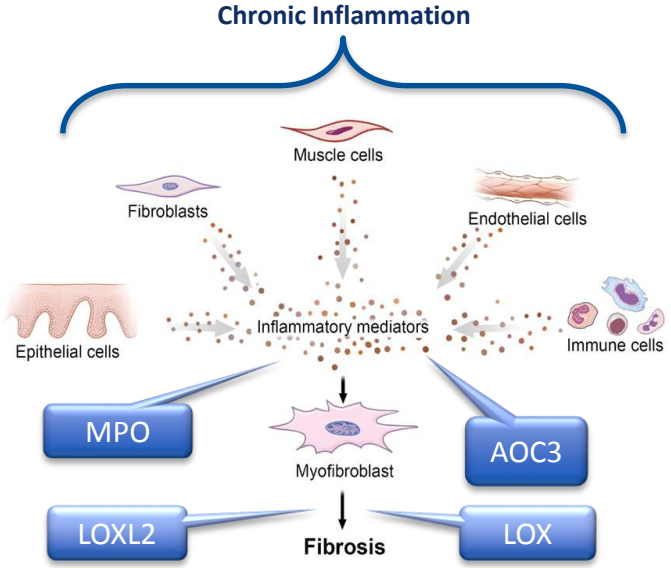
- LOXL2 and fibrosis:
  - LOX family of enzymes catalyse the final step in the fibrotic disease process
  - Clear association of increased levels of serum LOXL2 with disease progression in IPF, NASH and cardiac fibrosis
- Competitive profile:
  - Novel target and mechanism of action
  - Once daily oral drug
  - Best in class drug with high level inhibition of LOXL2 enzyme for 24 hours from one dose in phase 1 studies
  - 13 week tox studies (2 species) for both compounds
  - Place of LOXL2 at the end of the fibrotic cascade provides opportunity to treat various fibrotic diseases and use in combination with other Pharma pipeline drugs
- Commercial partnering process underway
  - Data room available (under CDA)
  - Process expected to be concluded by end 2019

1. Deutsche Bank market forecast for 2025
2. iHealthcareanalyst. Inc market forecast for 2021

Global leaders in amine oxidase enzyme inhibition

Two new drugs expected to start proof of efficacy studies in 2020

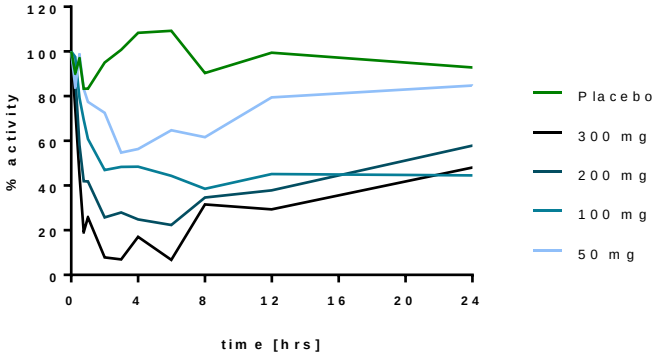
Targeting multiple different pathways



- **Highly productive;**
  - 1 compound partnered (AOC3)
  - 2 compounds partner ready (LOXL2)
  - 2 compounds phase 2 ready in 2020 (Systemic and topical LOX)
- R&D tax credit funds a significant share of expenditure (43.5% of eligible expenditure subject to $20m total revenue cap)

Systemic LOX Inhibitor

- Completed phase 1a – excellent PK/PD profile
- Predicted 24 hour inhibition of LOX with single daily dose
- Two indications with strong academic and clinical advocacy; Myelofibrosis and Pancreatic Cancer
- Phase 1b to complete by Q4 2019
- Proof of efficacy studies to commence in H1 2020



Dose dependent reduction in LOX activity in plasma

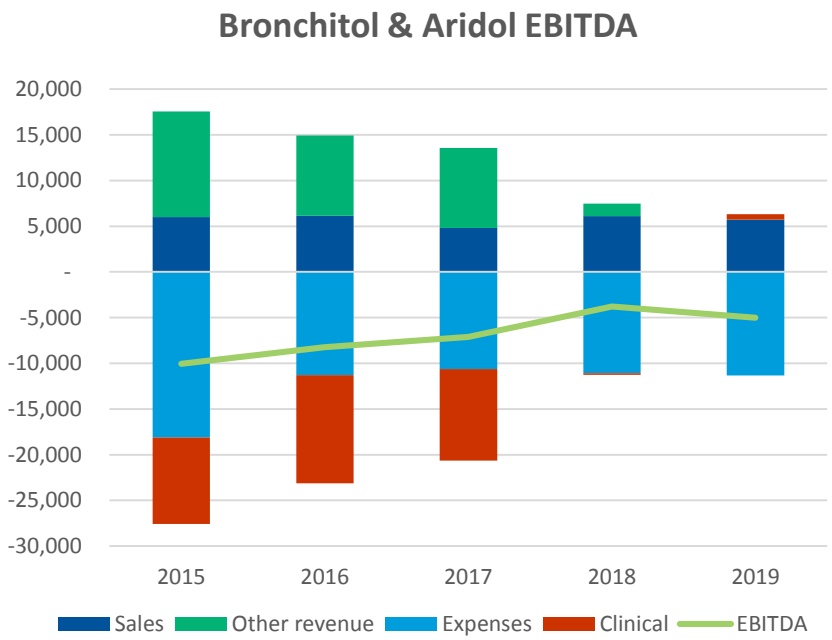
Topical LOX Inhibitor

- Compelling pre clinical efficacy in skin fibrosis / scarring models
- Limited competition and strong clinical advocacy
- Pre clinical tox studies to complete in Q4 2019
- Proof of efficacy studies to commence in H1 2020

pharmaxis

Mannitol business – profitable from 2020

Driven by existing market growth plus Bronchitol US and Russian market entry



- Two mannitol based products from Sydney FDA, TGA, EU approved factory
  - Aridol (Asthma Diagnostic)
  - Bronchitol (Cystic Fibrosis)
- Strong 2019 sales and healthy order book for both drugs
  - Bronchitol EU FY 19 in-market sales +17%
  - Bronchitol Australia FY 19 in-market sales +12%
  - Aridol global sales FY 19 +55%
- Bronchitol US approval
  - Subject to FDA approval ~Q1 2020
  - Launch milestone US$10m in H1 2020
- Increased sales will not materially increase core business expenses.
  - i.e. increasing rate of profitability on growing sales
- US sales commence in Q3 CY 2020 and turn business cash flow positive.

Key catalysts targeted for 2019/2020

Pharmaxis value driving events

1. **LOXL2 anti fibrotic program**
   - Partnering process to conclude - H2 2019

2. **Boehringer Ingelheim acquired AOC3 inhibitor to report clinical proof of concept**
   - Phase 2a NASH study in 100 patients for 3 months - last patient last visit complete.
     Phase 2a clinical trial result and commercial assessment to progress to Phase 2b due from BI - Q4 2019
   - Phase 2a diabetic retinopathy study in 100 patients for 3 months - >50% recruited
     Clinical and commercial assessment due from BI - H1 2020

3. **Exciting new assets advancing into the clinic after pre clinical success**
   - Systemic LOX inhibitor for myelofibrosis and/or pancreatic cancer to complete phase 1 in Q4 2019 and progress to clinical proof of concept studies in H1 2020
   - Topical LOX inhibitor for skin scarring to complete pre clinical tox studies in Q4 2019 and progress to clinical proof of concept study in H1 2020

4. **Mannitol Business (Aridol & Bronchitol) to turn profitable in 2020**
   - US - FDA to complete review Q1 2020; if approved - launch milestone US$10m
   - Sales growth in existing and new territories expected to continue

Summary

A globally recognised leader in drug development for fibrosis & inflammation

- A **chemistry platform** that continues to deliver a **pipeline** of oral small molecule drugs in preclinical and clinical development in diseases with **large markets** and high unmet need
- A **globally respected** translational **development team** delivering **best in class** drug development programs with international standard data packages
- A proven **track record** of achieving global partnering deals with multinational pharmaceutical companies
- $83m received to date from benchmark deal concluded with Boehringer Ingelheim in 2015 and worth a potential $600m+ in development milestones for two indications (NASH and diabetic retinopathy) plus sales related payments (% and milestones)
- **Ongoing revenues** from approved product sales (A$5.7m FY 2019) & milestones from partnering deals (A$42m FY 2018)
- **Strong balance sheet** - A$31m cash balance (30 June 2019) with $6m R&D Tax Incentive expected H2 2019 and reduced cash burn from mannitol business.
- Strong institutional share register; including USA / EU specialist biotech funds
- **Numerous catalysts over the next 18 months including two cash generating events (LOXL2 partnering and Bronchitol US launch)**

pharmaxis

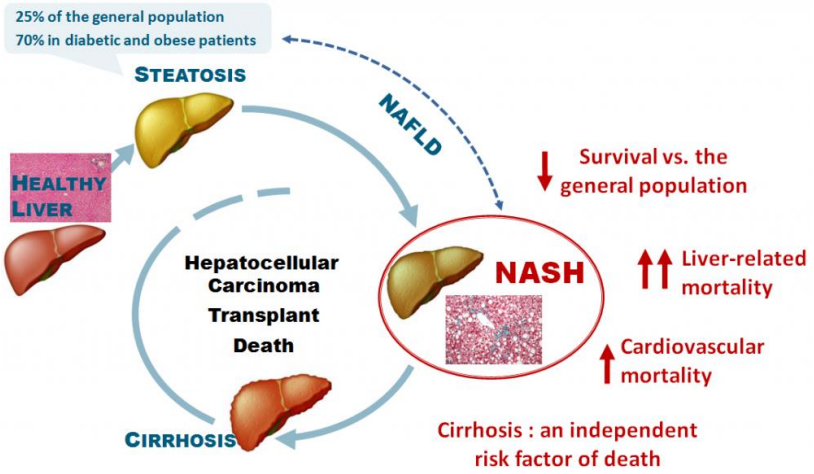
Clinical programs

Best in class drugs in diseases with high unmet need

AOC3 (Boehringer Ingelheim): Pharmaxis poised to be a major player in diseases caused by complications of diabetes

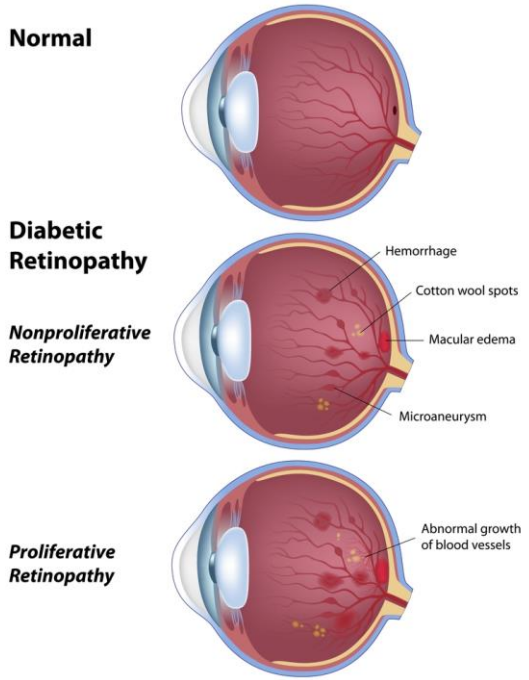
Two diseases with high unmet need and large patient populations in Phase 2 studies

NASH



- Expected to become leading cause of liver transplant by 2020
- No approved treatments

Diabetic Retinopathy



- Affects ~95 million people worldwide
- No approved treatments for early stage disease

pharmaxis

AOC3: Phase 2 efficacy trials well advanced

Boehringer Ingelheim responsible for clinical development and commercialisation

NASH

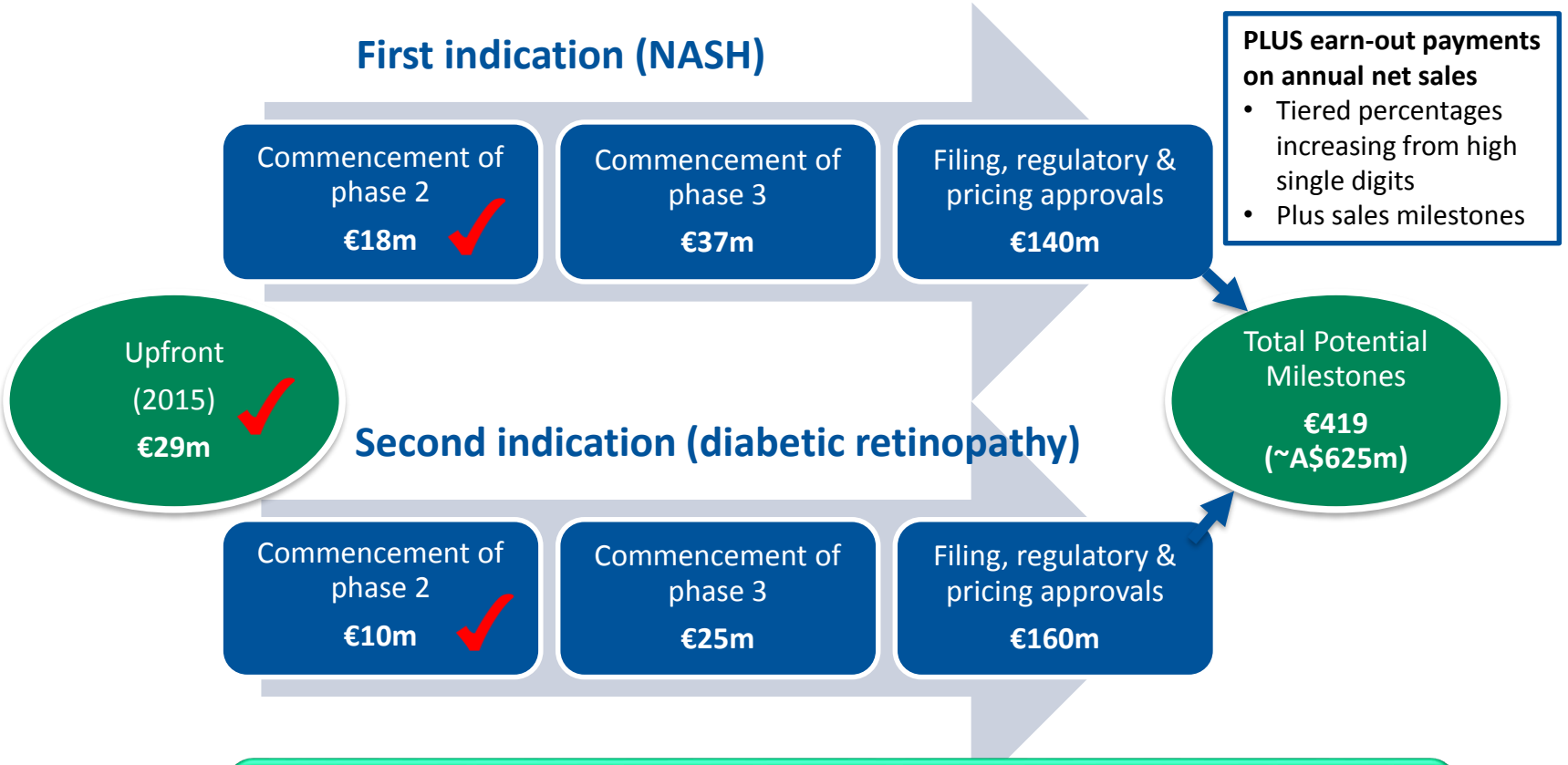
- Phase 2a trial expected to report Q4 2019 – proof of efficacy in patients with moderate – severe disease
- Deutsche Bank estimate market size of US$35b by 2025
- First in class anti inflammatory AOC3 inhibitor for NASH with peak sales potential of ~US$2b [analyst's estimate]

Diabetic Retinopathy

- Phase 2a AOC3 diabetic retinopathy expected to report H1 2020 – proof of efficacy in patients with early stage disease
- Affects one third of diabetic patients world wide
- No approved treatments for early stage disease
- First in class anti inflammatory AOC3 inhibitor for DR with peak sales potential of ~US$800m [analyst's estimate]

AOC3: Boehringer Ingelheim deal

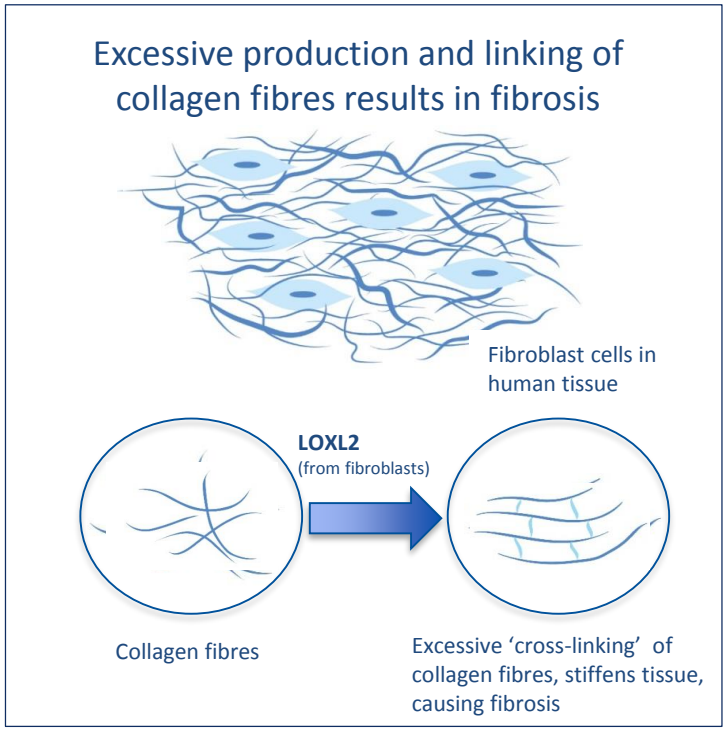
Deal structure illustrates value generating potential of Pharmaxis business model



- €57m (A$83m) already received
- No further investment required from Pharmaxis
- Commercial go/no go for phase 2b in NASH expected Q4 2019

LOXL2 inhibition program in partnering process

for NASH, IPF & other high value fibrotic diseases



Potential indications / market size:

- NASH / Liver Fibrosis; $35b[1]
- Pulmonary fibrosis (IPF); $3.5b[2]
- Kidney fibrosis
- Cardiac fibrosis

Significant market opportunity

- LOXL2 and fibrosis
  - LOX family of enzymes catalyse the final step in the fibrotic disease process
  - Clear association of increased levels of serum LOXL2 with disease progression in IPF, NASH and cardiac fibrosis
- Competitive profile
  - Novel target and mechanism of action
  - Once daily oral drug
  - Best in class drug with high level inhibition of LOXL2 enzyme for 24 hours from one dose in phase 1 studies
  - 13 week tox studies (2 species) for both compounds
  - Only known drug in clinical development to also inhibit LOXL3
  - Place of LOXL2 at the end of the fibrotic cascade provides opportunity to treat various fibrotic diseases and use in combination with other Pharma pipeline drugs

1. Deutsche Bank market forecast for 2025
2. iHealthcareanalyst. Inc market forecast for 2021

LOXL2 inhibitor program – partnering process

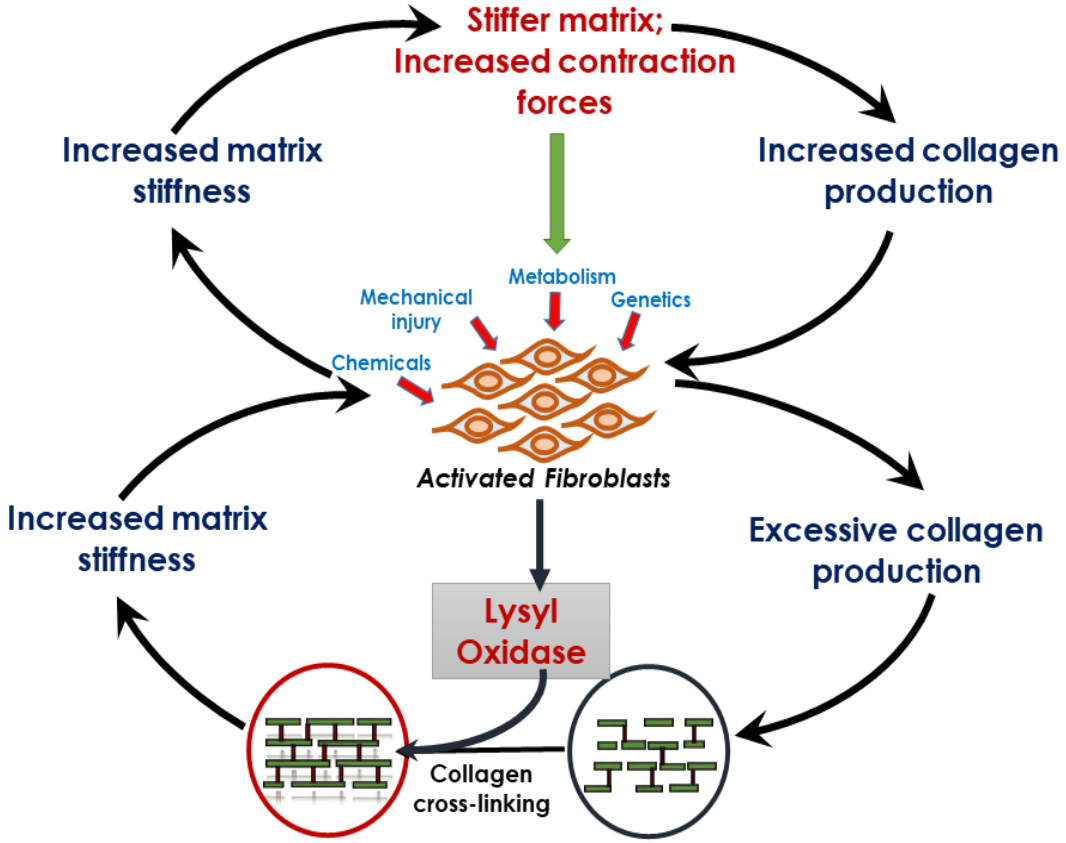
Positive engagement with pharma companies

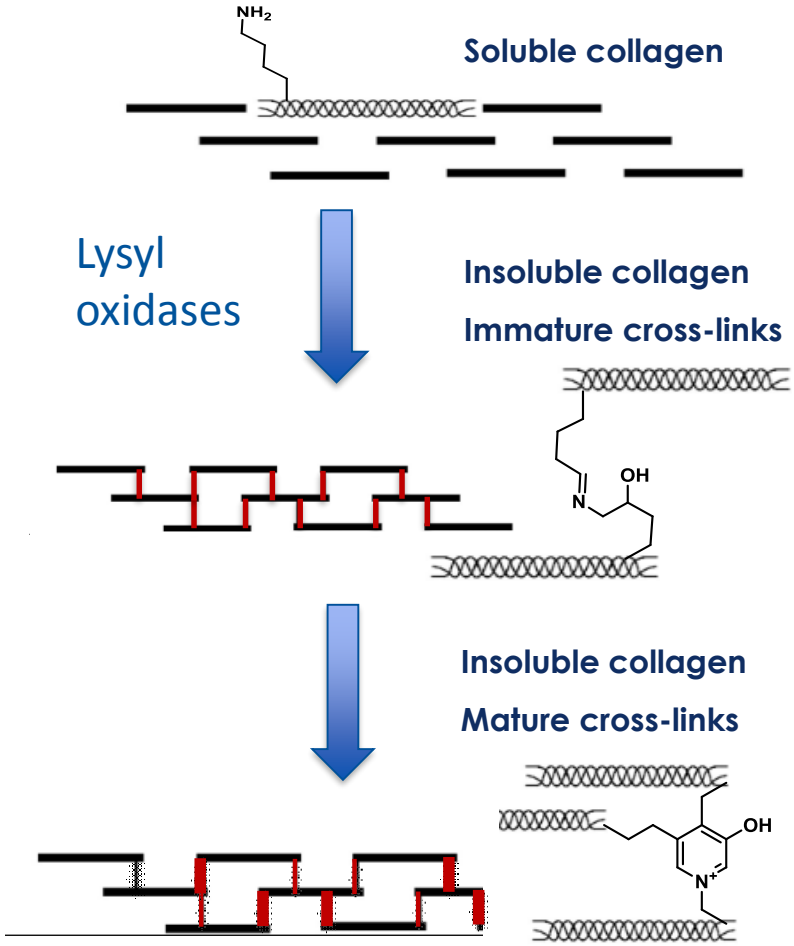
- Pharma company interest driven by search for:
  - Safe and effective inhibitor to LOXL2 and LOXL3 enzymes,
  - Safe and effective anti-fibrotic drug, and/or
  - Drugs to complement existing disease portfolio – lung, liver, kidney, heart, etc.
- Pharmaxis has engaged with multiple potential partners during planning and progress of the LOXL2 program
- Pharmaxis data package completed including:
  - Full analysis of second stage of phase 1 trials for both compounds
  - 13 week tox studies (2 species) for both compounds
- Data room available (under CDA)
- Commercial partnering process underway and expected to be concluded by end 2019

New assets entering the clinic

Exciting new prospects with excellent pre-clinical profiles

Role of lysyl oxidase enzymes in genesis of fibrotic tissue





Tissue stiffening due to increases in collagen and number of cross-links is preventable through lysyl oxidase inhibition → at the heart of a true anti-fibrotic therapy

pharmaxis

Systemic LOX inhibitor: Therapeutic Concept

Systemic lysyl oxidase inhibition is an efficacious therapy for severe fibrosis and cancer

- Inhibition of lysyl oxidase
  - Reduces cross-linking of extracellular matrix proteins (collagen, elastin)
  - Tissue stiffness will be diminished
  - Cellular stress will be reduced

Dynamic balance between extracellular matrix generation and degradation shifted

=> anti-fibrotic effects

- Inhibition of lysyl oxidase reduces fibrotic microenvironment

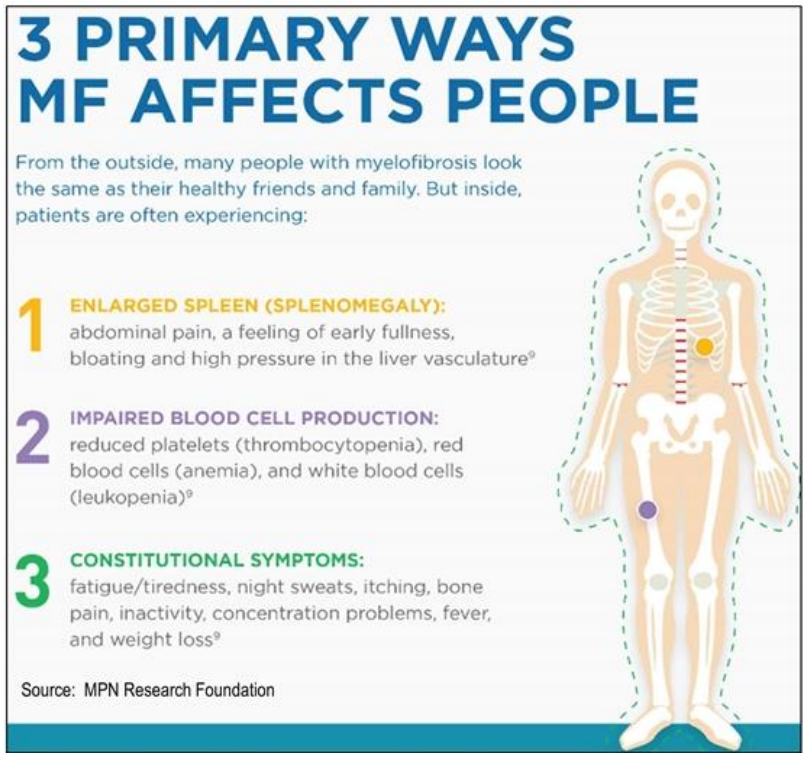
=> anti-metastatic effects

- Inhibition of lysyl oxidase loosens stiff stroma of primary tumours to improve access of anti-cancer drugs

=> adjuvant therapy for cytotoxic drugs and checkpoint inhibitors.

Myelofibrosis background

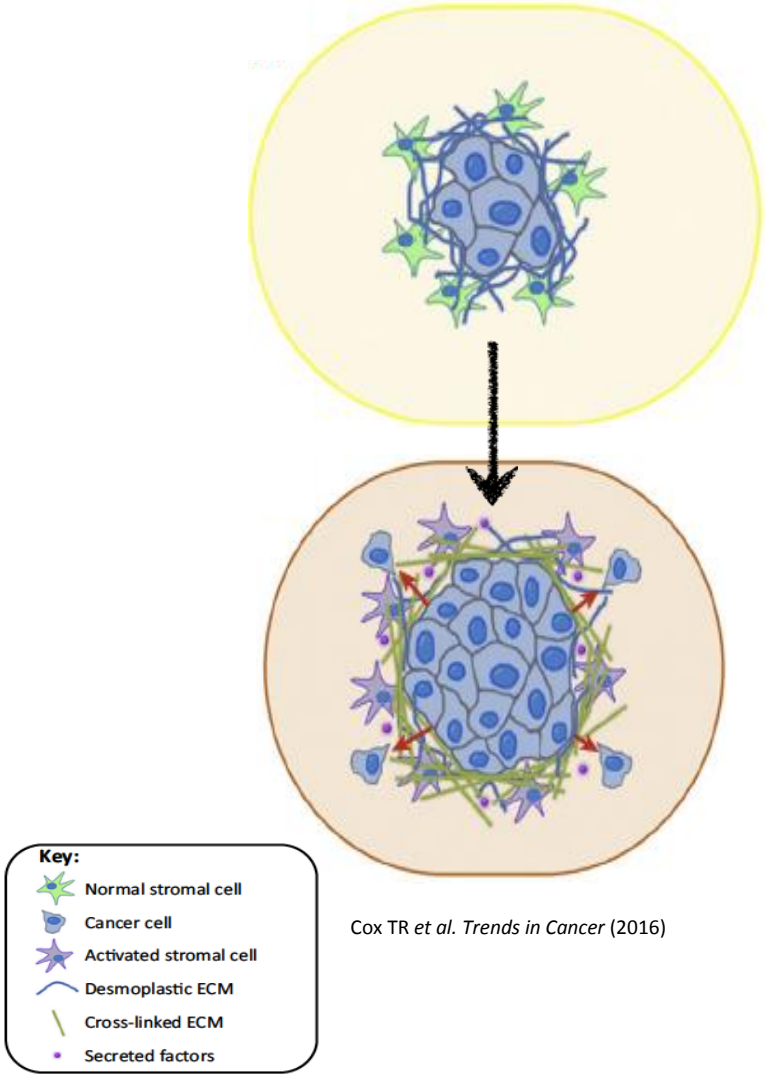
A rare type of bone marrow cancer that disrupts your body's normal production of blood cells



- **5k** US patients diagnosed per year
- **16k** total US patients
- **5 Years** Median survival
- **US$1b+** market
- Current treatments target JAK1/2 enzymes
  - Improve constitutional symptoms (e.g. fevers, weight loss) reduce spleen size and bone pain
  - Don't impact bone marrow histopathology and anaemia
- Limited pipeline of drugs in development
  - 2nd generation JAK inhibitors
  - Few anti fibrotic drugs
- LOX an important target in myelofibrosis
  - The role of the extracellular matrix and LOX in primary myelofibrosis highlighted in *Blood Cancer Journal* review article
  - http://dx.doi.org/10.1038/bcj.2017.6

Pancreatic cancer background

A highly stromal (fibrotic) disease



Cox TR *et al. Trends in Cancer* (2016)

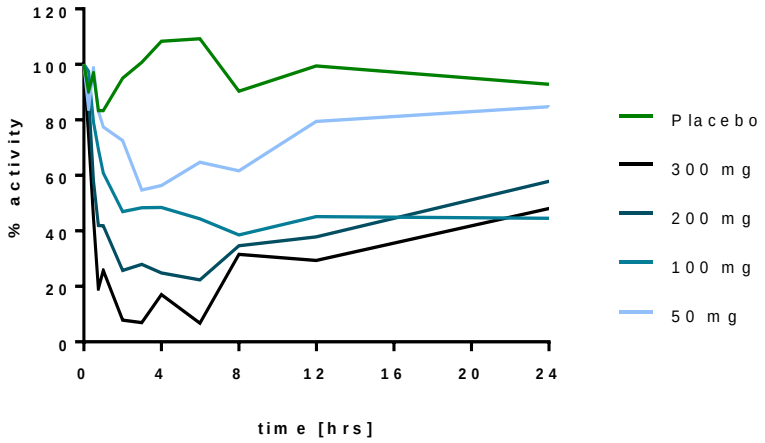
- **450,000** new cases annually worldwide
- **6-8 month** median survival
- Current therapies relatively ineffective due to tumour fibrotic response
  - Altering cancer cell behaviour, including making them more aggressive
  - Directly and indirectly altering cancer cell sensitivity to therapies
  - Acting as a physical barrier to the delivery of adjuvant therapies
  - Providing a highway for cancer cells to spread (metastasise) around the body
- Large number of ongoing clinical trials with combination therapy
- All LOX family members are elevated in PC and are negatively associated with survival

Systemic LOX inhibitor

Opportunities to fast track into patient proof of clinical efficacy studies

Program	Systemic LOX
Indication	Severe fibrotic indications ▪ myelofibrosis ▪ pancreatic cancer
Status	▪ Phase 1a completed ▪ Effective in animal models of myelofibrosis and other acute fibrotic diseases ▪ 2018 patent priority date
Next steps	▪ Complete 3 month tox studies ▪ Complete Phase 1b (Multiple Ascending Dose) ▪ Commence phase 1c/2 study in myelofibrosis and or pancreatic cancer patients by 1H 2020

Phase 1a - Single Ascending Dose



Dose dependent reduction in LOX activity in plasma

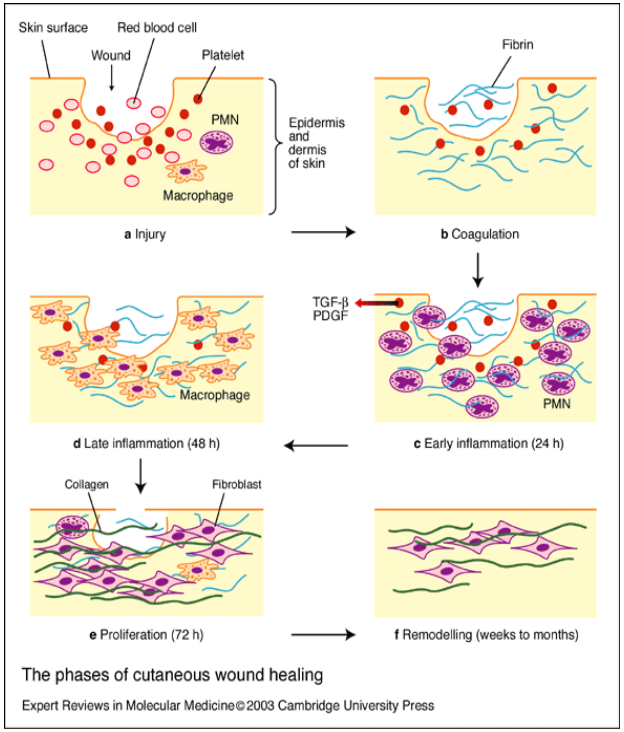
- Good safety profile - cleared to proceed to Multiple Ascending Dose stage
- Significant 24 hour inhibition of LOX enzymes from single once a day dose

pharmaxis

Topical LOX inhibitor: Therapeutic Concept

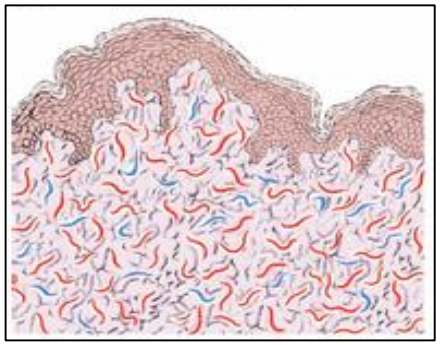
- Inhibition of lysyl oxidases in the skin will reduce cross-linking of extracellular matrix proteins (collagen, elastin)
- Consequently, scar tissue will be reduced and of diminished stiffness, with improved mechanical properties and appearance
- Topical pan-lysyl oxidase inhibition is a potent anti-fibrotic and anti-scarring therapeutic approach

Time course of wound healing and scar formation

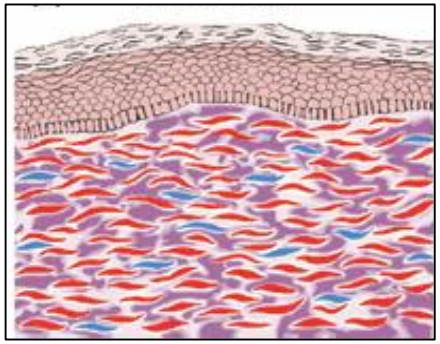


The phases of cutaneous wound healing

Normal skin



Scar



Conditions where scarring process can lead to unmet need

- Scarring after burns or surgery
- Hypertrophic scars
- Keloid scarring
- Dupuytren' disease
- Peyronie's disease
- Ocular scars
- Abdominal adhesions

Topical LOX inhibitor

Opportunities to fast track into patient proof of clinical efficacy studies

Program	Topical LOX
Indication	▪ Scar revision ▪ Keloid scarring ▪ Burns
Status	▪ Limited competition ▪ Lead candidate selected ▪ Improves scar appearance and function in animal models ▪ Strong academic and clinical advocacy ▪ Short term tox studies completed successfully
Next steps	▪ Complete 3 month tox studies ▪ Ready to commence proof of concept study in patients 2020

Commercial assets generating cash

Mannitol business to be profitable in 2020

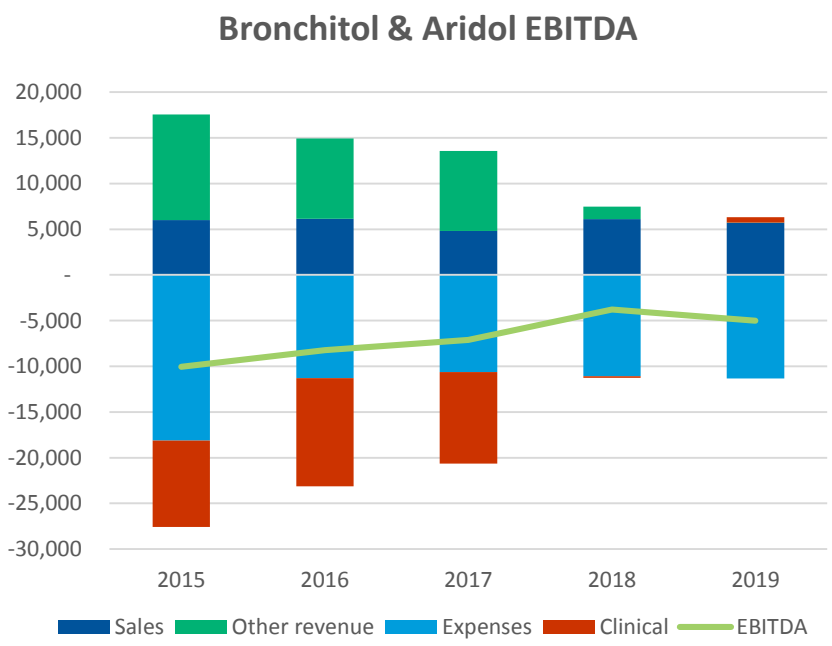
The mannitol business

Purpose built manufacturing facility for approved inhaled mannitol products

- Two mannitol based products from Sydney factory
  - FDA, TGA & EU approved
- Aridol (asthma diagnostic)
  - Marketed in US, EU, Korea, Australia
  - Sold via distribution network with minimal marketing spend
  - Launched in US market in 2019 – driving growth
  - Canadian approval June 2019
- Bronchitol (cystic fibrosis)
  - Marketed in Europe, Russia, Australia
  - Sold via distribution network with minimal marketing spend
  - Chiesi EU territory expanded in 2019 – added Greece & Nordic countries
  - Swiss distributor appointed 2019
  - Russian market poised for growth after reimbursement listing January 19
  - US FDA approval anticipated Q1 2020 – launch milestone and ongoing sales

Mannitol business – profitable from 2020

Driven by existing market growth plus Bronchitol US and Russian market entry



- Strong 2019 sales for both drugs
  - Bronchitol EU FY 19 in-market sales +17%
  - Bronchitol Australia FY 19 in-market sales +12%
  - Aridol global sales FY 19 +55%
- Future growth from existing business driven by
  - Russian reimbursement of Bronchitol (1 January 2019)
  - Aridol US launch
- Bronchitol US approval
  - Subject to FDA approval ~Q1 2020
  - Launch milestone US$10m in H1 2020
  - US sales commence in Q3 CY 2020
    - High teens royalty + manufacturing margin
    - Business cash flow positive.
- Increased sales will not materially increase core business expenses. ie increasing rate of profitability on growing sales

Corporate and financial

Strong register and cash position

Shareholders & trading

Financial Information	
ASX Code	PXS
Market Cap[1]	$91m
Shares on Issue	394m
Employee Options[1]	17m
Liquidity (turnover last 12 months)[1]	43m shares
Share price[1]	$0.23
Analyst valuation[2]	$0.54
Cash Balance (30 June 19)	A$31m

Institutional Ownership	30 June 19
BVF Partners (US)	21%
Arix Bioscience (UK)	11%
Australian Ethical	8%
D&A Income Limited	7%
Allan Gray	5%
Other Institutions	5%
Total Institutional Ownership	**57%**

1. As at 24 July 2019
2. Bell Potter Securities Research 24 June 2019

Financials – highlights

30 June 2019

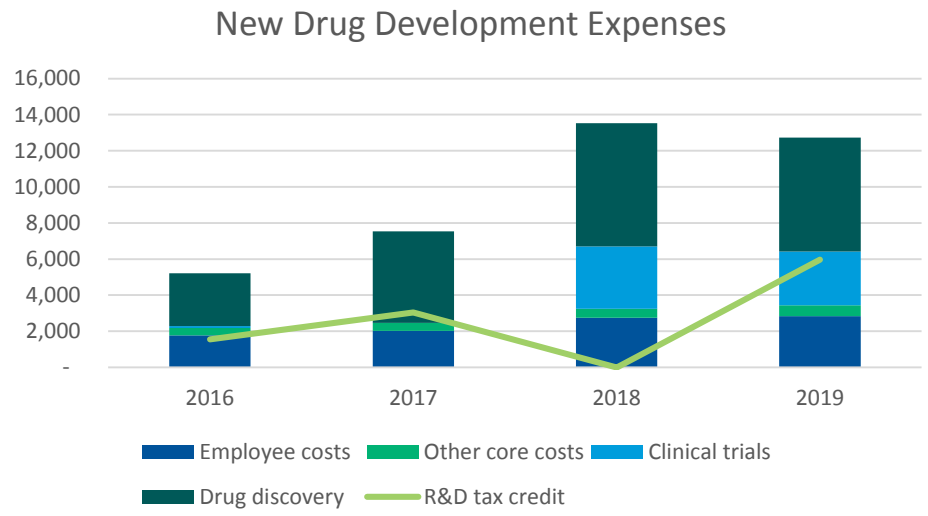
A$'000	2019	2018	2017	2016
Income Statements				
Sales revenue	5,676	6,094	4,823	6,135
Other revenue	7,404	44,739	13,178	12,885
Total revenue	**13,080**	**50,833**	**18,001**	**19,020**
Expenses	(33,138)	(44,413)	(36,437)	(35,476)
Net profit (loss) after tax	**(20,058)**	**6,428**	**(18,346)**	**(16,463)**
Segment results - adjusted EBITDA				
Bronchitol & Aridol	(5,013)	(3,786)	(7,100)	(8,228)
New drug development	(6,764)	28,771	(4,114)	(2,625)
Corporate	(3,874)	(13,466)	(4,017)	(3,988)
	(15,651)	**(11,519)**	**(15,231)**	**(14,841)**
Cash flow				
Operations	(19,798)	12,206	(15,262)	(11,989)
Investing activities	(981)	(884)	(723)	(1,381)
Financing activities	20,830	(1,753)	(1,721)	(1,714)
	51	**9,569**	**(17,706)**	**(15,084)**
Cash at bank	**31,124**	**31,073**	**21,504**	**39,209**

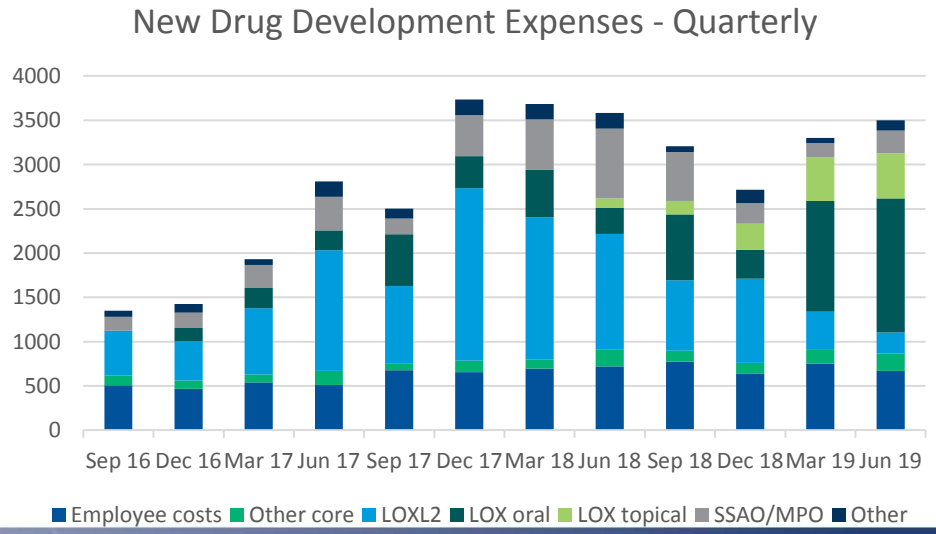
- Refer to following individual segment slides for commentary on financial results
- For additional financial information and commentary refer to June 2019 Quarterly Shareholder Update
- Cash flow investing activities relate to drug discovery capability, manufacturing upgrades and patent applications
- Cash flow financing activities – predominantly finance lease over facility at Frenchs Forest. In 2019 includes $24m placement
- Closing cash of $31m
- R&D tax credit of $6.0m expected to be received H2 CY 2019

Refer to and June 2019 Quarterly Shareholder Update for additional financial information

New Drug Development

Expenses (financial years ended 30 June)



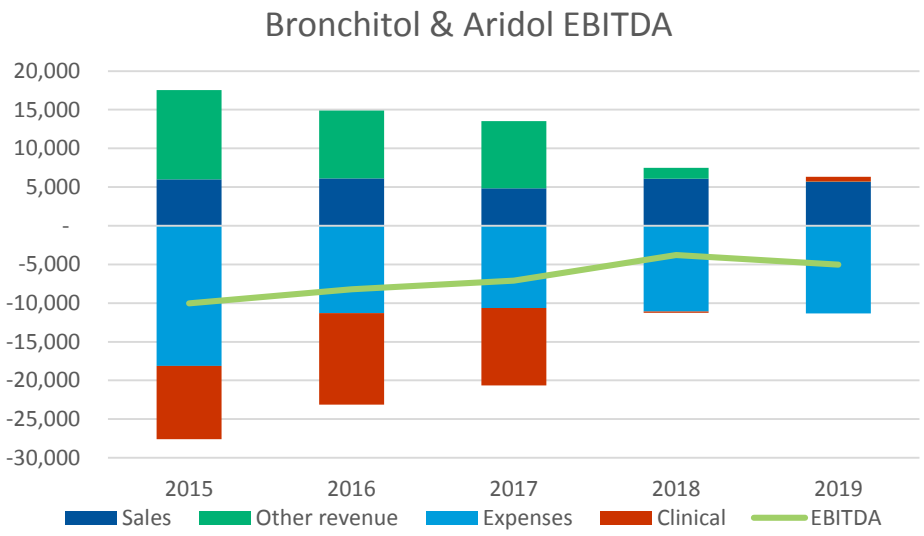


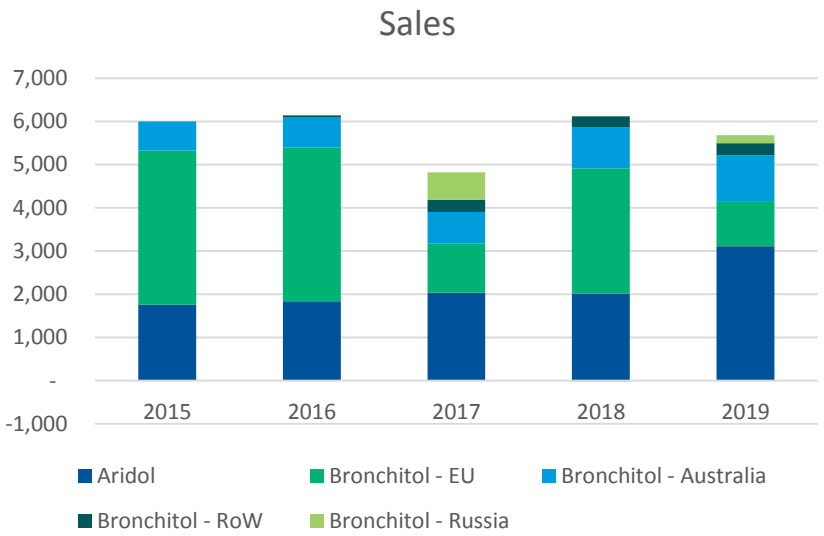
- Employee and other core costs are stable and a small percentage of total drug development expenditure
- Drug discovery and clinical trial costs are the major component of expenditure
  - these are external costs
  - vary on a project by project basis as drugs progress through development – see bottom graph
- R&D tax credit
  - funds a significant share of expenditure
  - is not available if company revenue for the financial year is above $20m (as was the case in 2018)

pharmaxis

Bronchitol & Aridol

Segment profitability & sales analysis (financial years ended 30 June)





Path to profitability: increase revenue to leverage cost base

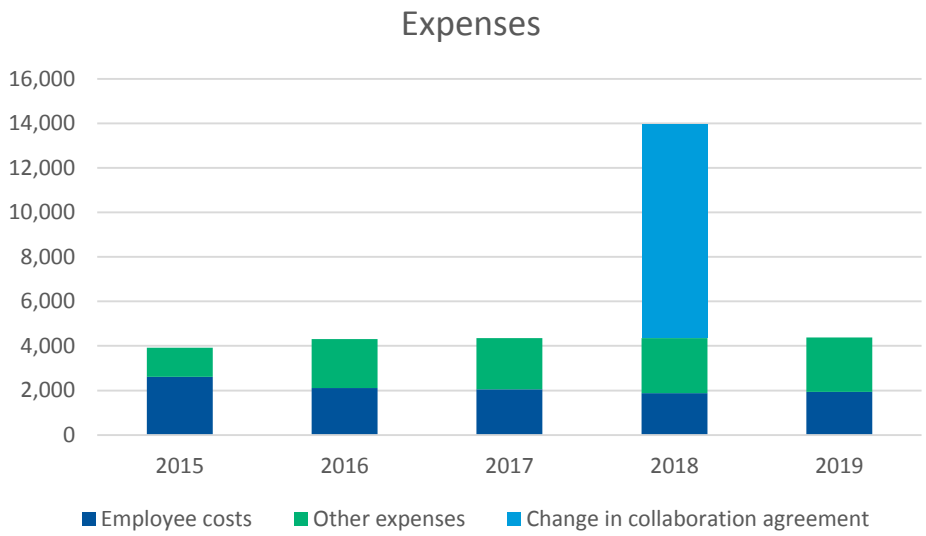
- Core cost base relatively fixed vs sales volume
- Reimbursement of Bronchitol in Russia achieved 1 January 2019. (Sales in 2019 reduced by credit note of $411k in relation to price change and expired inventory held by distributor – one off.)
- US approval – Subject to FDA approval (~Q1 CY 2020), launch milestone of US$10m and sales commence in Q2 CY 2020
- Other Bronchitol sales growth opportunities
  - Chiesi territory expanded to include Greece, Nordic
  - EffRx appointed as Swiss distributor in June 2019
- Aridol: US launch Dec 18; Canada – approval in June 2019, launch H2 2019
- FY 2019 includes reimbursement of CF303 clinical trial costs

Revenue

- FY 2015: Direct to pharmacy until June 15 (ie all sales revenue to PXS)
- FY 2016: EU sales via distributors at lower margin (~50%) to PXS. Chiesi builds inventory levels
- FY 2017: First sale to Russia ($640k)
- FY 2018: Growth in EU (Chiesi) & Australia (expanded PBS coverage)
- FY 2019:
  - Aridol includes US relaunch.
  - Major EU distributor order moved from H1 to H2 CY 2019
- Other revenue in all years is predominantly reimbursement of clinical trial costs by US partner

Corporate

Expenses (financial years ended 30 June)

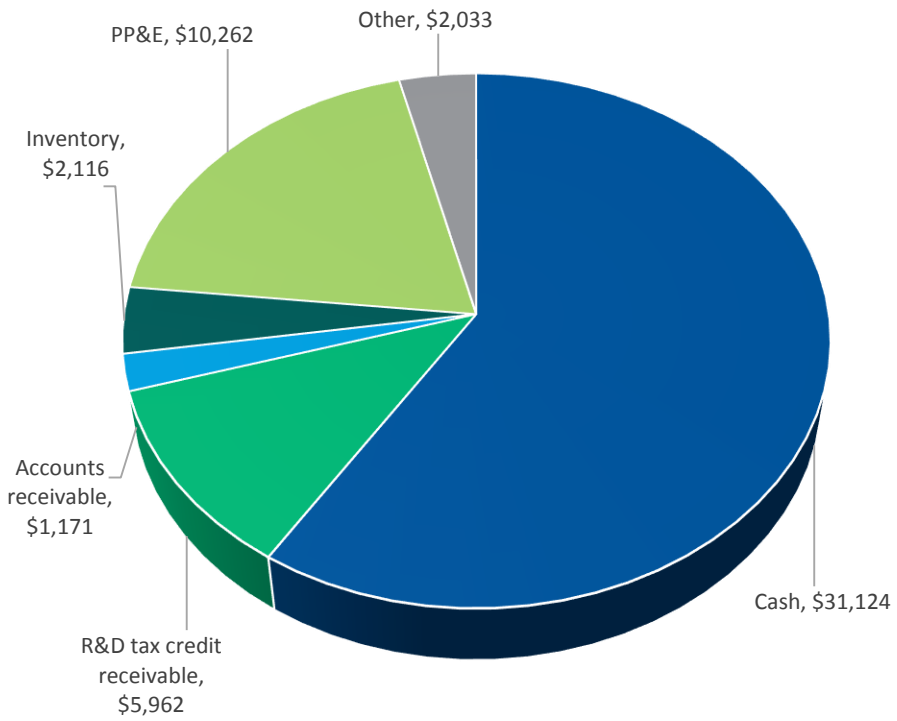


- Employee and other costs stable
- One-off expense in H1 FY 2018 to change collaboration agreement with Synairgen

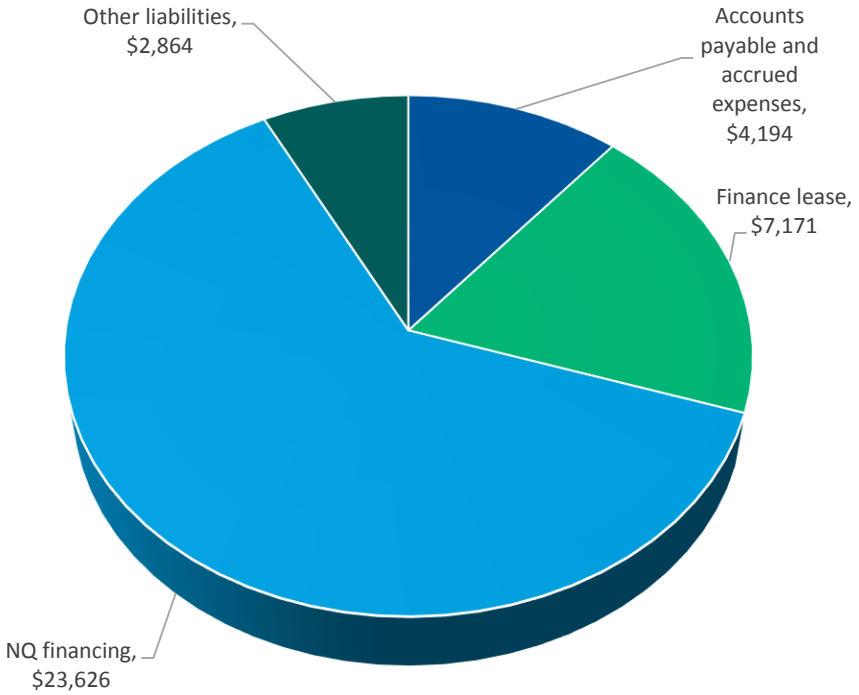
Balance sheet

30 June 2019

Assets ($52.7m)



Liabilities ($37.9m)



- Finance lease over 20 Rodborough Rd (to 2024)
- NovaQuest financing – not repayable other than as % of Bronchitol revenue

Pharmaxis Ltd
20 Rodborough Road
Frenchs Forest NSW 2086
Australia
T: +61 2 9454 7200
www.pharmaxis.com.au

Gary Phillips
Chief Executive Officer
gary.phillips@pharmaxis.com.au

David McGarvey
Chief Financial Officer
david.mcgarvey@pharmaxis.com.au