BELL POTTER

**Speculative**

See Key Risks on Page 8 & Biotechnology Risk Warning on Page 10

Speculative securities may not be suitable for Retail clients

16 February 2018


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# Pharmaxis Ltd. (PXS)

## 1H18 Results- No material change from unaudited results released earlier

**Recommendation**
Buy (unchanged)
**Price**
$0.27
**Valuation**
$0.56 (unchanged)
**Risk**
Speculative

**GICS Sector**

**Pharmaceuticals & Biotechnology**

| Expected Return | |
|---|---|
| Capital growth | **107.4%** |
| Dividend yield | **0.0%** |
| Total expected return | **107.4%** |
| **Company Data & Ratios** | |
| Enterprise value | **$51.8m** |
| Market cap | **$86.3m** |
| Issued capital | **319.7m** |
| Free float | **98.1%** |
| Avg. daily val. (52wk) | **$97,817** |
| 12 month price range | **$0.2275- $0.31** |

**Price Performance**

| | (1m) | (3m) | (12m) |
|---|---|---|---|
| Price (A$) | 0.27 | 0.27 | 0.30 |
| Absolute (%) | 1.85 | 3.77 | -8.33 |
| Rel market (%) | 5.59 | 7.11 | -11.62 |

### Not much new information in the audited financials

There was no material change in the audited 1H18 results released on the ASX from the unaudited results as per PXS' quarterly update released earlier this month. The company confirms that it has now received the A$15m (€10m) milestone payment from partner Boehringer Ingelheim, which was triggered in Jan'18 on the first patient being dosed in the Phase 2A Diabetic Retinopathy trial with the SSAO/VAP-1 inhibitor BI_1467335. Current cash reserves are A$43.3m, borrowings were A$8.8m, which leaves PXS with a net cash position of A$34.5m. This provides runway through CY19, with further boost expected through a licensing deal for LOXL-2 asset in 2HCY18.

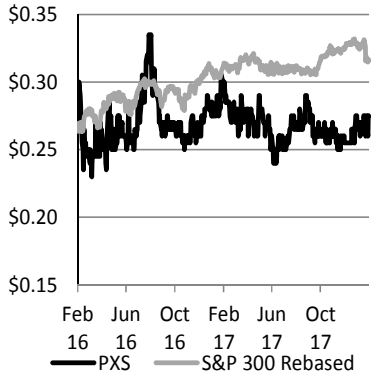
### Key catalysts approaching in 2HCY18

PXS expects to finish the first single ascending dose phase of its ongoing Phase 1 trials with the LOXL-2 asset by end of 1QCY18, following which the multiple ascending dose part of the trial will start. Results from the Phase 1 trial are expected in early 3QCY18. The company is already engaged with multiple companies in discussions around partnering the asset. We understand several have entered 'confidential due diligence' with PXS, while a few have also entered into 'material transfer agreements' to test the drug in their own labs. We expect a deal for LOXL-2 should follow close behind results from the ongoing Phase 1 trials and look for a deal to be finalised by end 3QCY18/early 4QCY18. PXS is also running in parallel longer term toxicology studies to make the asset Phase 2 ready for a potential partner. We understand that those studies could help a partner save up to 18 months of lead time to start Phase 2 trials and therefore we view those relatively inexpensive studies as value add.

### Retain Buy (speculative) and Valuation of $0.56

Given not much new information in the audited financials vs. the unaudited numbers released earlier in the month, there is minimal impact to our earnings and valuation. We have just updated our model with revised BPe USD/AUD and EUR/AUD currency assumptions for FY18-20. There was no change to our FY18 NPAT forecasts. Changes to our NPAT forecasts for FY19 and FY20 were not material (1%-2%). Our valuation for PXS remains unchanged at A$0.56/sh. We retain Buy (Speculative).

**Absolute Price**




SOURCE: IRESS

**Earnings Forecast**

| Year end 30th June | 2016A | 2017A | 2018E | 2019E | 2020E |
|---|---|---|---|---|---|
| Revenue (A$m) | 17.8 | 17.3 | 50.2 | 16.9 | 14.9 |
| EBITDA (A$m) | -14.8 | -15.2 | 11.1 | -7.5 | -5.3 |
| NPAT (reported) (A$m) | -16.5 | -18.3 | 7.1 | -11.8 | -9.8 |
| NPAT (normalised) (A$m) | -15.3 | -17.4 | 8.3 | -10.6 | -8.6 |
| EPS (reported) (cps) | -5.2 | -5.7 | 2.2 | -3.7 | -3.1 |
| EPS (adjusted) (cps) | -4.8 | -5.5 | 2.6 | -3.3 | -2.7 |
| EPS growth (%) | N/A | N/A | NM | N/A | N/A |
| PER (x) | N/A | N/A | 10.4 | N/A | N/A |
| EV/EBITDA (x) | -3.5 | -3.4 | 4.7 | -6.9 | -9.8 |
| Dividend (¢ps) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Yield (%) | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Franking (%) | N/A | N/A | N/A | N/A | N/A |
| ROE (%) | -73.0% | -494.3% | 70.3% | NM | 117.4% |

NOTE: REVENUE INCLUDES R&D TAX INCENTIVE, MILESTONES FROM BI DEAL AND FY19 AND FY20 REVENUE INCLUDES RISK ADJUSTED UPFRONT AND MILESTONES FROM LICENSING DEAL FOR LOXL-2. SOURCE: BELL POTTER SECURITIES ESTIMATES

# 1H18 Results- No material change from unaudited results released earlier in Feb

## 1H18 Result Summary

There was no material change in the audited 1H18 results released on the ASX from the unaudited results as per PXS' quarterly update released earlier this month. The EPS/share numbers have now been updated. A summary of the reported 1H18 result is shown in the Table below:

**Table 1 - 1H18 Result Summary**

| | Result vs PCP | | | Result vs Forecast | |
|---|---|---|---|---|---|
| | 1H17A | 1H18A | % change | 1H18E | Variance (%) |
| **Revenues** | **6.5** | **31.1** | **378%** | **31.1** | **0%** |
| **Total operating costs** | **14.9** | **23.3** | **56%** | **23.3** | **0%** |
| **EBITDA** | **-8.4** | **7.8** | **192%** | **7.8** | **0%** |
| Depreciation and Amortisation | -1.5 | -1.6 | 3% | -1.6 | 0% |
| **EBIT** | **-10.0** | **6.2** | 162% | **6.2** | **0%** |
| Net Interest Income/(expense) | 0.1 | 0.0 | -154% | 0.0 | 0% |
| Other Income/(expense) | -0.7 | 0.3 | 151% | 0.3 | 0% |
| Pretax Income (Loss) | -10.6 | 6.5 | 162% | 6.5 | 0% |
| **Net Income (Loss) after tax - normalised** | **-10.6** | **6.5** | **162%** | **6.5** | **0%** |
| Diluted EPS/Share (cents) | -3.32 | 2.02 | 161% | 2.04 | -1% |
| **Reported Net Income (loss)** | **-11.0** | **5.9** | **154%** | **5.9** | **0%** |
| Reported Diluted EPS/sh (cents) | -3.47 | 1.84 | 153% | 1.85 | -1% |

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

Since the last update, the company confirms that it has now received the A$15m (€10m) milestone payment from partner Boehringer Ingelheim, which was triggered in Jan'18 on the first patient being dosed in the Phase 2A Diabetic Retinopathy trial with the SSAO/VAP-1 inhibitor BI_1467335.

## Earnings and Valuation Changes

We have reviewed our assumptions for PXS and made adjustments to our forecasts based on PXS' 1H18 results. Given not much new information in the audited financials vs. the unaudited numbers released earlier in the month, there is minimal impact to our earnings and valuation.

**We value PXS at $0.56/sh**

We have just updated our model with revised BPe USD/AUD and EUR/AUD currency assumptions for FY18-20. There was no change to our FY18 NPAT forecasts. Changes to our NPAT forecasts for FY19 and FY20 were not material (1%-2%). Our valuation for PXS remains unchanged at A$0.56/sh. **We retain our Buy (Speculative) recommendation.**

**Table 2 - Key Changes to our FY18-20 Forecasts**

| | FY2018E | | | FY2019E | | | FY2020E | | |
|---|---|---|---|---|---|---|---|---|---|
| | Old | New | Change (%) | Old | New | Change (%) | Old | New | Change (%) |
| Revenues | 50.2 | 50.2 | 0% | 17.2 | 16.9 | -1% | 15.0 | 14.9 | 0% |
| Interest Income | 0.6 | 0.6 | 0% | 0.6 | 0.6 | 0% | 0.4 | 0.4 | -2% |
| Operating Costs | 39.1 | 39.1 | 0% | 24.4 | 24.4 | 0% | 20.2 | 20.2 | 0% |
| EBITDA | 11.1 | 11.1 | 0% | -7.3 | -7.5 | 3% | -5.2 | -5.3 | 1% |
| EBIT | 7.9 | 8.0 | 0% | -10.5 | -10.7 | 2% | -8.5 | -8.5 | 1% |
| NPAT (adjusted) | 8.3 | 8.3 | 0% | -10.4 | -10.6 | 2% | -8.5 | -8.6 | 1% |
| Adjusted Diluted EPS | 2.6 | 2.6 | 0% | -3.2 | -3.3 | 2% | -2.7 | -2.7 | 1% |
| NPAT (reported) | 7.1 | 7.1 | 0% | -11.6 | -11.8 | 2% | -9.7 | -9.8 | 1% |
| Reported Diluted EPS | 2.2 | 2.2 | -1% | -3.6 | -3.7 | 2% | -3.0 | -3.1 | 1% |

ALL AMOUNTS IN AUD IN MILLIONS EXCEPT EPS.

SOURCE: BELL POTTER SECURITIES ESTIMATES

Our DCF valuation model is based on a WACC of 16.0% and a terminal growth rate of 1%.

**Table 3 - Summary of Valuation**

| Forecasts | Base case |
|---|---|
| Enterprise value from DCF (AUDm) | 151.0 |
| Add: Reported Cash incl BI milestone and R&D tax rebate (AUDm) | 43.3 |
| Less: Current Debt | 8.8 |
| Equity value (AUDm) | 185.6 |
| Total diluted shares (million) | 333.5 |
| **Value per share (AUD)** | **$0.56** |
| Current Share price (AUD) | $0.27 |
| Expected Capital Growth | 107.4% |

SOURCE: BELL POTTER SECURITIES ESTIMATES

**Table 4 - PXS Sum-of-parts DCF Valuation Summary**

| Asset | Probability adjusted NPV (A$m) | Value per share (A$) | % Mix | Probability of success/Risk adjustment | Current Phase |
|---|---|---|---|---|---|
| Bronchitol and Aridol | ($14) | **-$0.04** | -7.5% | Aridol - Canada (60%) | Marketed (Ex -US and Canada) |
| New Drug Development | $205 | **$0.61** | 110.2% | BI_1467335 (NASH, DR - 23.5%), LOXL-2 (NASH -17.5%) | BI_1467335 (Phase 2A) and LOXL-2 (Phase 1) |
| Corporate/Non-Allocated | ($40) | **-$0.12** | -21.4% | NA | NA |
| Reported Cash | $43 | **$0.13** | 23.3% | NA | NA |
| Reported Debt | ($9) | **-$0.03** | -4.7% | NA | NA |
| **Equity Value** | **$185.6** | **$0.56** | **100.0%** | | |

SOURCE: BELL POTTER SECURITIES ESTIMATES

**Table 5 – PXS- Key assumptions used in New Drug Development segment**

| Asset | Indication | Stage | Partnering Status | First Fiscal Year of sales (Est.) | Peak Market share | Peak Global Sales (US$m) | Probability of success |
|---|---|---|---|---|---|---|---|
| BI_1467335 | NASH - F2/F3 fibrosis stage | Phase 2A | Boehringer Ingelheim | 2026 | 5% (US), (3.5% ROW) | $1,962 | 23.5% |
| BI_1467335 | Diabetic Retinopathy (DR) | Phase 2A | Boehringer Ingelheim | 2026 | 10.0% | $813 | 23.5% |
| LOXL-2 | NASH - F3/F4 fibrosis stage | Phase 1 | Will look to partner | 2028 | 5% (US), (3.5% ROW) | $1,448 | 17.5% |

GLOBAL PEAK SALES ARE PRE-RISK ADJUSTMENT AND ROYALTIES. SOURCE: BELL POTTER SECURITIES ESTIMATES

**Table 6 – Deal Assumptions for Key Drug Development Pipeline Assets**

| Asset | Indication | Stage at Licensing | Licensee | Fiscal Year Timing of deal (Est.) | Total Deal Value in USDm (upfront plus milestones) | Upfront (USDm) | Other developmental & regulatory Milestones (USDm) | Commercial Milestones Est (USDm) | Royalty Rate (% ) | PXS's share |
|---|---|---|---|---|---|---|---|---|---|---|
| BI_1467335 | NASH and Diabetic Retinopathy | Phase 1 | Boehringer Ingelheim | 2015 | 645 | 33 | 462 | 150 | 11.0% | 100.0% |
| LOXL-2 | NASH and a second indication (potentially IPF) | Phase 1 complete | TBC | 2019 | 700 | 50 | 470 | 180 | 11.0% | 83.0% |

NOTE: ROYALTIES ARE LIKELY TO BE TIERED. WE ASSUME A FLAT RATE FOR NOW. FOR LOXL-2 DEAL PXS AND ITS PARTNER SYNAIRGEN WILL SHARE THE DEAL VALUE IN 83:17 RATIO. THE BI DEAL VALUE INCLUDES OUR ESTIMATES ABOUT POTENTIAL UNDISCLOSED COMMERCIAL MILESTONES WHICH ARE PART OF THE DEAL AND HENCE MAY BE CONSERVATIVE. THE BI DEAL IS IN EUROS, WE HAVE CONVERTED IT TO USD AT CURRENT EXCHANGE RATES. SOURCE: BELL POTTER SECURITIES ESTIMATES

## Upside Risk to our valuation

- **Clinical success will allow for increased probability of success:** We currently assign a 23.5% probability of success (of reaching the market) to BI_1467335, given that it's currently in a Phase 2A trial, for both NASH and DR. We envisage that completion of the trial with positive results and subsequent advancement of BI_1467335 into Phase 2B trials (BPe 1HCY19) will allow us to assign a higher probability of success and therefore will lead to material upgrades in our numbers.

Similarly, we currently assign a 17.5% probability of success (of reaching the market) to LOXL-2 in NASH, given that it's currently in a Phase 1 trial with some early data indicating target engagement. We envisage that completion of Phase 1 with positive results and subsequent advancement of LOXL-2 into Phase 2A trials will allow us to assign a higher probability of success and therefore will lead to material upgrades in our numbers.

- **Timing assumption for licensing deal for LOXL-2:** We currently assume a licensing deal for LOXL-2 in 2HCY18, on completion of its Phase 1 trial. If it gets licensed prior to our estimates, it will be an upside to our valuation.
- **Conservative assumptions for BI_1467335 in absence of Phase 2 clinical data:** Our market penetration & pricing assumptions, are all based on the premise that BI_1467335 will be behind a few years to other NASH approaches such as Allergan's CCR2/CCR5 antagonist and Gilead's selonsertib. Our base assumption at this stage is that BI_1467335 shows at least equivalent efficacy to these assets, with a better safety profile, with the advantage potentially to be used both as a monotherapy and in combination, in the moderate-severe fibrosis stage NASH population, with one or more approved assets by that stage. In the absence of Phase 2 clinical data we are conservative in our assumptions at this stage.
- **Conservative assumptions for LOXL-2 to start with in absence of clinical data:** Our market penetration & pricing assumptions and deal size assumptions, are all based on the premise that LOXL-2 will be behind several years to other drugs targeting NASH to get to market. At that stage we expect the drug is more likely than not to be used as an add on therapy with existing standard of care by then to improve efficacy, likely in the more severe end of the fibrosis stage spectrum of NASH. However, given the scarcity of anti-fibrotic assets in development for NASH, we expect both partnering interest and deal size for the LOXL-2 asset with its novel mechanism of action (MoA) to be in line with other high value deals in this space recently. In the absence of clinical data from LOXL-2 we are conservative in our assumptions at this stage including our assumptions for the deal size. Positive Phase 1 data and interest by multiple pharma parties could lead to a deal higher than our current forecast.
- **We do not model royalty revenue from a second indication (likely IPF) for LOXL-2 presently:** At this stage in our valuation, we do not include a market revenue model for LOXL-2 for Idiopathic Pulmonary Fibrosis (IPF) as a potential secondary indication and therefore do not model royalty revenue as a percentage of net sales from this indication to PXS. Confirmation of IPF as a second indication by PXS' future partner and progress of this into Phase 2 clinical trials is likely to considerably increase the market opportunity for this asset, in which case it's likely to be a source of considerable upside to our valuation in future.
- **No sales milestones from LOXL-2 deal included in our model:** At this stage we do not model PXS' share of the assumed US$180m sales milestones from a potential LOXL-2 deal in our model. We intend to include it in our model once a LOXL-2 deal is inked by PXS, in which case it's likely to be a source of upside to our valuation.
- **No value assigned for other early stage pipeline assets:** We also do not include any value for PXS' other early stage assets namely SSAO/MPO inhibitor and LOX inhibitor. Formal toxicology studies for these two assets have now commenced, with the view to moving to the clinic (Phase 1 human trials) in FY19.

  The SSAO/MPO program is developing a dual inhibitor of both SSAO and myeloperoxidase (MPO), which has potential anti-inflammatory application in both respiratory and cardiovascular disease. PXS is currently focused on fully profiling the drugs under development and identifying the appropriate indications to pursue.

The LOX inhibitor program is developing a drug which broadly inhibits all the LOX family of enzymes, which has potential anti-fibrotic application in scarring (a topical formulation) and other severe fibrotic indications including some cancers (likely oral formulation). PXS is currently focused on formulation for the scarring application and is also exploring other severe fibrotic indications where this may also have application.

PXS believes that the above two assets may have higher potential and value add if developed to Phase 2A or 2B before partnering, vs. the strategy with its later stage assets targeting NASH which it looked to partner at or after Phase 1. Progress of these two assets into the clinic in future is likely to be a source of upside to our valuation.

- **We model limited markets for Bronchitol and do not model US market as yet:** For Bronchitol, we model the existing markets of Australia, Western Europe including Italy, Eastern Europe and Russia. We do not model the US market for Bronchitol as yet. PXS' US partner Chiesi is responsible for completing and finalising a New Drug Application (NDA) with the US FDA and subsequent commercialisation of it. Should Bronchitol get approved and launch in US, PXS will receive a US$10m milestone from Chiesi, additional US$15m sales milestones and a mid to high teen percentage of royalties on net sales. FDA approval and launch of Bronchitol in the US therefore will be an upside to our valuation for PXS.
- **We model limited markets for Aridol and do not model US market as yet:** For Aridol, we model the existing markets of Australia, Europe and South Korea. We also model revenue from Canada (assigning it a 60% probability of success), given Aridol is not approved in Canada as yet, and filing for approval is expected in 1HCY8. We note we assume a FY20 launch in Canada, however PXS believes it might launch earlier than that, in which case it may be an upside to our estimates. We do not model the US market for Aridol as yet. PXS has appointed a distributor for the US and plans to launch subsequent to FDA approval of its Sydney manufacturing facility in FY19.
- **Limited contribution from Bronchitol and Aridol segment in our valuation:** We note that PXS believes the Bronchitol and Aridol segment could transition to profitability over the next 1-2 years, irrespective of any US approval. On our estimates we expect the EBITDA loss from the segment to significantly come down from the FY16/FY17 levels starting FY18, however we do not see the segment becoming profitable out to several more years, continuing instead to make a modest loss, albeit declining each year as product sales pick up. We believe Russia for Bronchitol and Canada for Aridol may surprise us on the upside, however at this stage we choose to be conservative till we see increasing traction in Russia for Bronchitol on obtaining reimbursement and launch in Canada for Aridol.

# Pharmaxis Ltd. (PXS)

**COMPANY DESCRIPTION**

Pharmaxis, is a biopharmaceutical company focused on the development of drugs for inflammatory and fibrotic diseases. Its lead assets Phase 2 SSAO/VAP-1 inhibitor BI_1467335 partnered in a multi-million dollar deal with Boehringer Ingelheim and currently unpartnered Phase 1 LOXL-2 inhibitors are targeting Non-alcoholic Steatohepatitis (NASH), a multibillion dollar market, estimated to grow to be ~US$20bn-US$35bn. The drugs while not first-in-class, have the potential to be best-in-class and be useful in other fibrotic diseases and we forecast both to be blockbusters (i.e. have over US$1bn in peak sales). NASH market is expected to grow with rise in obesity and surpass HCV as the leading cause of liver transplant by 2020. There are currently no approved drugs which make the market largely untapped and underserved. The multifactorial aspect of NASH and future treatments likely to be a combination of therapies ensures that companies remain on the lookout for promising assets to license, which bodes well for licensing prospects for PXS' LOXL-2 inhibitors. PXS also has two marketed respiratory products Bronchitol and Aridol which we view as non-core, however they represent an existing albeit small revenue stream for PXS with potential upside should US approval come through.

**INVESTMENT STRATEGY**

We have a Buy (speculative) recommendation on Pharmaxis. Our investment thesis is based on:

**$0.56 valuation:** We value PXS using a risk adjusted DCF at $0.56. The valuation is approximately a 107.4% premium to the current share price of $0.27/sh.

**Lead assets targeting NASH have blockbuster potential:** Pharmaxis' lead assets Phase 2 SSAO/VAP-1 inhibitor BI_1467335 and Phase 1 LOXL-2 inhibitor are both targeting Non-alcoholic Steatohepatitis (NASH), a multibillion dollar market, estimated to grow to be ~US$20bn-US$35bn. We model US$1.96bn peak worldwide sales (pre risk adjustment) for BI_1467335 in NASH and US$1.45bn for LOXL-2 in NASH.

**NASH represents significant commercial opportunity:** NASH is a large market, growing rapidly with an increasing obese population. It is estimated that NASH will surpass Hepatitis C Virus (HCV) as the leading cause of liver transplants by 2020. There are currently no drugs approved for NASH, which makes this market largely untapped and underserved and a lucrative market opportunity for PXS to target. There are several drugs in development and interest and competition has both heated up. There have been a number of high value deals in this space recently and active companies are looking to license or acquire to build a portfolio of assets targeting different stages of NASH. Average deal sizes are around US$860m, however some deals recently have been over $1bn.

**PXS emerging as a key player in NASH:** Drugs targeting NASH in development fall under 3 groups based on their mechanism of action and stage of NASH they target – metabolic modifiers, anti-inflammatory agents and anti-fibrotic agents. It is expected that the future treatment for NASH is likely to be a cocktail of therapies as was seen earlier with HCV. Therefore we see drugs from each of the 3 categories to complement each other and competition likely to be restricted to drugs within the same category. Pharmaxis has two assets which fall under two different categories. BI_1467335 is an anti-inflammatory agent and LOXL-2 asset is an anti-fibrotic agent and therefore should complement each other and other drugs in advanced development. There are very few drugs in development in these 2 categories and as far as we are aware both these drugs are currently the only one in their class being actively developed for NASH.

**Drugs not first-in-class but potentially best-in-class:** PXS' SSAO/VAP-1 and LOXL-2 inhibitor are not the first in their class. However based on pre-clinical data for both and Phase 1 data for the SSAO drug, we believe the drugs possess a more favourable PK/PD

profile which could make them best-in-class. Data so far provides evidence of good safety profile, good oral bioavailability and potent, long lasting inhibition of targeted enzyme.

**Potential exists to expand the use of lead drugs beyond NASH:** Both the lead drugs have potential to be used across fibrotic diseases with the SSAO inhibitor in a phase 2 trial for Diabetic Retinopathy (DR) and LOXL-2 being explored in Pulmonary Fibrosis.

**Partnership with Boehringer Ingelheim validates chemistry platform:** PXS signed a multi-million dollar product acquisition deal with Boehringer Ingelheim (BI) in 2015, which marked the start of the turnaround for the company, strengthened its balance sheet and validated its amine oxidase chemistry platform and its ability to execute valuable deals.

**Value inflexion points approaching:** Results from both phase 2A trials for the SSAO/VAP-1 drug partnered with BI are expected in 2HCY18. LOXL-2 is in Phase 1, with results due in mid-CY18, with a multi-million dollar licensing deal expected in 2HCY18.

**Strong cash position:** PXS' current cash position on a proforma basis is A$43.3m (including $25m cash at end of Dec'17, $15m milestone payment received from BI in Feb'18 and $3.26m R&D tax rebate received in Jan'18). In our view, this provides at least 2 years cash runway. PXS is unlikely to require any capital raisings in the medium term and we believe the company is well placed to look at capital management initiatives such as a share buyback or special dividend to return some surplus capital to its shareholders after they finalise a deal for LOXL-2 later this year. PXS' strong cash position will also allow it to pursue some asset acquisitions to further enrich its drug development pipeline and also allow the company to consider Phase 2A/2B development for some of its pipeline assets to add more value before partnering them out.

# Risks

The key risks specific to Pharmaxis include, but are not limited to, the following:

- **Clinical risk:** There is a risk that PXS' clinical trials for LOXL-2 fail to reach their endpoints, which would in turn impact its partnering prospects.
- **Timing and clinical risk on partnered product:** For its partnered product BI_1467335, PXS is reliant on Boehringer Ingelheim (BI) for development timelines. The ability of PXS' product to finally reach the market and translate into royalty revenue streams for it depends on BI. Delays in timelines will affect near term milestone payments to PXS as well as its long-term revenue flow. Also if the product fails at any stage of clinical development or BI decides to discontinue the development of the product PXS' ability to generate revenue from that asset will diminish/or fail totally.
- **Reliance on partnerships to unlock value:** The success of PXS' business model is underpinned by its ability to ultimately attract valuable partnering deals for its assets, given PXS lacks the commercial infrastructure to support commercialisation. Our valuation in part is underpinned by PXS' ability to ultimately attract a valuable partnering deal for its LOXL-2 asset. Failure to attract partners for this asset or to negotiate attractive deal terms as we have postulated will impact our forecasts.
- **Bronchitol US approval decision may have sentiment impact, although won't affect our valuation:** The revenue driver in our model for PXS is its 'New Drug Development segment' which includes the partnered BI_1467335 drug for the indication NASH and Diabetic Retinopathy and its currently unpartnered asset LOXL-2 also targeting NASH and other fibrotic indications. While we look at Bronchitol and Aridol, PXS' currently marketed products as non-core assets and attribute minimal value to it, with no value in our model for Bronchitol's potential US approval and launch, we believe PXS is vulnerable to partner Chiesi's success/failure in obtaining US regulatory approval for Bronchitol, which could impact sentiment around the company.
- **Regulatory risk:** Successful commercialisation of PXS' products is ultimately dependent on getting approval from the regulatory authorities to commercially launch the product. While PXS' partner with much more experience in navigating regulatory channels will be responsible for obtaining approvals, failure to satisfy regulatory requirements could mean that the product will fail to reach the market.
- **Commercial risk:** The pharmaceutical market is intensely competitive and in particular the NASH space which PXS is targeting has several companies engaged in drug development. PXS' products are unlikely to be the first to market and therefore would not have first mover advantage. There is no guarantee that mid-late stage clinical trial results of the BI drug or the LOXL-2 drug, even if they hit the endpoints of the studies, will be viewed as clinically meaningful by clinicians' vis-à-vis other approved NASH drugs by then on the market. Even if the drugs do get approved on successful pivotal studies, commercial adoption might still be hampered by the cost of the combination (especially in LOXL-2's case where we assume an add-on therapy positioning) or the competition in the NASH market having much larger impact than we have postulated.
- **Funding risk:** Delays in partnering of LOXL-2 may impact PXS' funding position in the long term. PXS has A$43.3m in proforma cash and debt related to finance lease of A$8.8m, amounting to a net cash position of A$34.5m. Although PXS has a high cash balance currently, which should provide cash runway through CY19, the company may need to raise additional capital for funding its requirements beyond that should there be delays in partnering its LOXL-2 asset. There is no guarantee that PXS will be able to secure additional financing if and when required.

# Pharmaxis Ltd.
as at 16 February 2018

| | |
|---|---|
| Recommendation | Buy, Speculative |
| Price | $0.27 |
| Valuation | $0.56 |

## Table 7 - Financial summary

**Pharmaxis Ltd (PXS)** — **Share price (A$) $0.270**
As at 15 February 2018 — **Market cap (A$m 86.3**

### Profit and Loss

| Y/e June 30 (A$m) | 2016A | 2017A | 2018E | 2019E | 2020E |
|---|---|---|---|---|---|
| Product Sales Revenues | 6.1 | 4.8 | 6.2 | 6.9 | 7.4 |
| Other Revenue (commercial) | 8.2 | 8.6 | 43.4 | 9.4 | 6.9 |
| Other Income | 3.5 | 3.9 | 0.6 | 0.6 | 0.6 |
| **Total Revenue** | **17.8** | **17.3** | **50.2** | **16.9** | **14.9** |
| **EBITDA** | **-14.8** | **-15.2** | **11.1** | **-7.5** | **-5.3** |
| Depreciation & Amortisation | -3.0 | -3.1 | -3.1 | -3.2 | -3.2 |
| **EBIT** | **-17.9** | **-18.3** | **8.0** | **-10.7** | **-8.5** |
| Net interest & Other Income/(Expense) | 2.6 | 0.9 | 0.4 | 0.1 | 0.0 |
| **Pre-tax profit** | **-15.3** | **-17.4** | **8.3** | **-10.6** | **-8.6** |
| Tax | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Net profit (loss) normalised** | **-15.3** | **-17.4** | **8.3** | **-10.6** | **-8.6** |
| Abnormal items | -1.2 | -0.9 | -1.2 | -1.2 | -1.2 |
| **Reported Net profit (loss)** | **-16.5** | **-18.3** | **7.1** | **-11.8** | **-9.8** |

### Cashflow

| Y/e June 30 (A$m) | 2016A | 2017A | 2018E | 2019E | 2020E |
|---|---|---|---|---|---|
| Reported NPAT | -16.5 | -18.3 | 7.1 | -11.8 | -9.8 |
| Non-cash items | 2.6 | 3.7 | 4.6 | 4.9 | 4.8 |
| Net change in Working capital | 1.8 | -0.6 | 0.3 | 0.0 | 0.0 |
| **Operating cashflow** | **-12.0** | **-15.3** | **12.0** | **-6.9** | **-4.9** |
| | | | | | |
| Capex | -1.4 | -0.3 | -0.8 | -0.8 | -0.8 |
| Investments | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Investments in intangible assets | 0.0 | -0.4 | -0.4 | -0.4 | -0.4 |
| Other investing cash flow | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Investing cashflow** | **-1.4** | **-0.7** | **-1.1** | **-1.2** | **-1.2** |
| | | | | | |
| Change in borrowings | -1.4 | -1.5 | -1.6 | -1.6 | -1.7 |
| Equity issued | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Dividends paid | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other financing cash flow | -0.3 | -0.2 | -0.4 | -0.4 | -0.4 |
| **Financing cashflow** | **-1.7** | **-1.7** | **-1.9** | **-2.0** | **-2.0** |
| | | | | | |
| **Net change in cash** | **-15.1** | **-17.7** | **9.0** | **-10.1** | **-8.1** |
| | | | | | |
| **Cash at end of period*** | 39.2 | 21.5 | 30.5 | 20.4 | 12.3 |
| * Includes effect of exchange rate fluctuations on cash balance | | | | | |
| **Free cash flow** (op. CF less capex and intangibles) | **-13.4** | **-16.0** | **10.9** | **-8.1** | **-6.1** |

### Balance sheet

| Y/e June 30 (A$m) | 2016A | 2017A | 2018E | 2019E | 2020E |
|---|---|---|---|---|---|
| Cash | 39.2 | 21.5 | 30.5 | 20.4 | 12.3 |
| Current receivables | 4.8 | 4.4 | 1.4 | 1.5 | 1.6 |
| Inventories | 2.2 | 2.6 | 2.7 | 2.8 | 2.9 |
| Other current assets | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| **Current assets** | **46.4** | **28.6** | **34.7** | **24.8** | **17.0** |
| | | | | | |
| PPE | 17.8 | 14.9 | 12.3 | 9.7 | 7.0 |
| Non-current receivables | 1.3 | 1.4 | 1.5 | 1.5 | 1.5 |
| Intangible assets | 0.1 | 0.5 | 0.8 | 1.2 | 1.5 |
| Other non-current assets | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Non-current assets** | **19.2** | **16.8** | **14.7** | **12.4** | **10.0** |
| | | | | | |
| **Total assets** | **65.7** | **45.4** | **49.4** | **37.2** | **27.0** |
| | | | | | |
| Payables | 5.0 | 6.8 | 5.3 | 5.4 | 5.5 |
| Debt | 10.1 | 9.3 | 8.3 | 7.1 | 5.9 |
| Provisions | 0.8 | 0.9 | 1.0 | 1.1 | 1.2 |
| Financial liabilities (Novaquest financing agreement) | 23.2 | 22.1 | 21.5 | 21.1 | 20.8 |
| Deferred Lease Incentive | 1.9 | 1.6 | 1.4 | 1.1 | 0.9 |
| Other liabilities | 3.7 | 1.1 | 0.0 | 0.0 | 0.0 |
| **Total liabilities** | **44.7** | **41.9** | **37.5** | **36.0** | **34.3** |
| **Net Assets** | **20.9** | **3.5** | **11.9** | **1.3** | **-7.3** |
| | | | | | |
| Shareholders' equity | 344.6 | 344.6 | 344.6 | 344.6 | 344.6 |
| Reserves | 18.6 | 19.5 | 20.7 | 21.9 | 23.1 |
| Retained earnings/(losses) | -342.3 | -360.6 | -353.5 | -365.3 | -375.1 |
| **Total shareholders equity** | **20.9** | **3.5** | **11.9** | **1.3** | **-7.3** |

### Valuation data

| Y/e June 30 | 2016A | 2017A | 2018E | 2019E | 2020E |
|---|---|---|---|---|---|
| Net profit -normalised (A$m) | -15.3 | -17.4 | 8.3 | -10.6 | -8.6 |
| EPS - normalised (c) | -4.8 | -5.5 | 2.6 | -3.3 | -2.7 |
| *EPS growth (%)* | N/A | N/A | NM | N/A | N/A |
| P/E ratio (x) | N/A | N/A | 10.4 | N/A | N/A |
| FCFPS (c) | -4.2 | -5.0 | 3.4 | -2.5 | -1.9 |
| Price/FCF (x) | -6.4 | -5.4 | 7.9 | -10.7 | -14.3 |
| DPS ( c ) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| *Yield (%)* | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Franking (%) | N/A | N/A | N/A | N/A | N/A |
| EV/EBITDA | -3.5 | -3.4 | 4.7 | -6.9 | -9.8 |
| EV/EBIT | -2.9 | -2.8 | 6.5 | -4.8 | -6.1 |

| | |
|---|---|
| Share price now (A$) | $0.270 |
| **Valuation (A$):** | $0.56 |
| *Premium (discount) to price* | 107.4% |
| **Recommendation:** | Buy |
| **Risk Rating** | Speculative |

### Profitability ratios

| Y/e June 30 | 2016A | 2017A | 2018E | 2019E | 2020E |
|---|---|---|---|---|---|
| EBITDA margin (%) | N/A | N/A | 22.1% | N/A | N/A |
| EBIT margin (%) | N/A | N/A | 15.9% | N/A | N/A |
| Return on assets (%) | -23.3% | -38.3% | 16.9% | -28.5% | -31.7% |
| Return on equity (%) | -73.0% | -494.3% | 70.3% | NM | 117.4% |
| Dividend cover (x) | N/A | N/A | N/A | N/A | N/A |
| Effective tax rate (%) | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |

### Liquidity and leverage ratios

| Y/e June 30 | 2016A | 2017A | 2018E | 2019E | 2020E |
|---|---|---|---|---|---|
| Net debt (cash) (A$m) | -29.1 | -12.3 | -22.2 | -13.3 | -6.4 |
| **Net debt/equity (%)** | N/A | N/A | N/A | N/A | N/A |
| Net interest cover (x) | N/A | N/A | N/A | N/A | N/A |
| Current ratio (x) | 4.2 | 2.7 | 4.2 | 2.9 | 1.9 |

### Segmentals

| Y/e June 30 | 2016A | 2017A | 2018E | 2019E | 2020E |
|---|---|---|---|---|---|
| **Bronchitol and Aridol** | | | | | |
| Product Sales | 6.1 | 4.8 | 6.2 | 6.9 | 7.4 |
| Other revenue (Clinical trial cost reimbursement) | 8.2 | 8.6 | 1.2 | 0.0 | 0.0 |
| Other income | 0.6 | 0.1 | 0.2 | 0.0 | 0.0 |
| **Total Revenues** | **14.9** | **13.5** | **7.5** | **6.9** | **7.4** |
| **EBITDA** | **-8.2** | **-7.1** | **-2.7** | **-3.2** | **-2.9** |
| | | | | | |
| **New Drug Development** | | | | | |
| Product Sales | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other revenue (Milestone+license+royalty) | 0.0 | 0.0 | 42.1 | 9.4 | 6.9 |
| Other income (R&D tax incentive etc. ) | 2.6 | 3.4 | 0.2 | 0.2 | 0.2 |
| **Total Revenues** | **2.6** | **3.4** | **42.2** | **9.6** | **7.1** |
| **EBITDA** | **-2.6** | **-4.1** | **27.4** | **-0.2** | **1.8** |
| | | | | | |
| **Corporate** | | | | | |
| Other income | **0.3** | **0.3** | **0.5** | **0.5** | **0.5** |
| **EBITDA** | **-4.0** | **-4.0** | **-13.6** | **-4.2** | **-4.2** |
| | | | | | |
| **Total Company** | | | | | |
| Revenues | **17.8** | **17.3** | **50.2** | **16.9** | **14.9** |
| **EBITDA** | **-14.8** | **-15.2** | **11.1** | **-7.5** | **-5.3** |

### Interims

| Y/e June 30 (A$m) | 2H16A | 1H17A | 2H17A | 1H18A | 2H18E |
|---|---|---|---|---|---|
| Revenue | 9.1 | 6.5 | 10.8 | 31.1 | 19.1 |
| **EBITDA** | -6.8 | -8.4 | -6.8 | 7.8 | 3.3 |
| Depreciation & Amortisation | -1.5 | -1.5 | -1.5 | -1.6 | -1.6 |
| **EBIT** | **-8.3** | **-10.0** | **-8.3** | **6.2** | **1.7** |
| Net interest & Other Expense | 3.6 | -0.6 | 1.5 | 0.3 | 0.1 |
| Pre-tax profit | -4.7 | -10.6 | -6.8 | 6.5 | 1.8 |
| Tax | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Net Profit (loss) - normalised** | **-4.7** | **-10.6** | **-6.8** | **6.5** | **1.8** |
| Net Profit (loss) - reported | -5.3 | -11.0 | -7.3 | 5.9 | 1.2 |

SOURCE: BELL POTTER SECURITIES ESTIMATES

**Recommendation structure**

**Buy:** Expect >15% total return on a 12 month view. For stocks regarded as 'Speculative' a return of >30% is expected.

**Hold:** Expect total return between -5% and 15% on a 12 month view

**Sell:** Expect <-5% total return on a 12 month view

*Speculative Investments are either start-up enterprises with nil or only prospective operations or recently commenced operations with only forecast cash flows, or companies that have commenced operations or have been in operation for some time but have only forecast cash flows and/or a stressed balance sheet.*

*Such investments may carry an exceptionally high level of capital risk and volatility of returns.*

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