ISSN 1443-850X

BIOSHARES
Australia's Independent Biotech Investment Resource, est.1999

24 February 2023
Edition 934

Companies covered: AVR, CGS, EBR, NEU, OPT, PXS, VHT

	Bioshares Portfolio
Year 1 (May '01 - May '02)	21.2%
Year 2 (May '02 - May '03)	-9.4%
Year 3 (May '03 - May '04)	70.6%
Year 4 (May '04 - May '05)	-16.3%
Year 5 (May '05 - May '06)	77.8%
Year 6 (May '06 - May '07)	17.4%
Year 7 (May '07 - May '08)	-35.8%
Year 8 (May '08 - May '09)	-7.4%
Year 9 (May '09 - May '10)	50.2%
Year 10 (May '10 - May'11)	45.4%
Year 11 (May '11 - May '12)	-18.0%
Year 12 (May '12 - May '13)	3.1%
Year 13 (May '13 - May '14)	26.6%
Year 14 (May '14 - May '15)	23.0%
Year 15 (May '15 - May '16)	33.0%
Year 16 (May '16 - May '17)	16.8%
Year 17 (May '17 - May '18)	-7.1%
Year 18 (May '18 - May '19)	-2.3%
Year 19 (May '19 - May '20)	39.5%
Year 20 (May '20 - May '21)	86.8%
Year 21 (May '21 - May '22)	-15.6%
Year 22 (May '22 - Dec '22)	-2.2%
Year 23 (CY2023)	-9.3%
Cumulative Gain	1423%
Av. Annual gain (22 yrs)	18.1%

2023 Top Six Picks: -10.8%

Bioshares is published by Blake Industry & Market Analysis Pty Ltd. ACN 085 334 292
PO Box 447
Flinders Lane Vic 8009
AFS Licence No. 258032

Mark Pachacz - Editor/Analyst
Email: mark{at}bioshares.com.au
Ph: 0403 850 425

Edition Number 934 (24 February 2023)

Extract from Bioshares –

Pharmaxis: A Re-Rating Approaching?

The coming months ahead should be a significant period for Pharmaxis (PXS: $0.05) with the readout expected from two Phase II studies. Whilst market conditions currently pose challenges for investors, positive outcomes in one or both studies have the potential for a significant re-rating in a stock that is arguably well undervalued.

At an investment briefing last week, CEO Gary Phillips said that the results should have a fundamental impact on the company's valuation. Of more importance to the company is likely the result in its myelofibrosis study, with an established market and strong licensing interest. Pharmaxis is conducting a Phase IIa monotherapy study in up to 24 patients with myelofibrosis with its drug candidate PXS-5505.

Significant Acquisition in Myelofibrosis Drug Development

In June 2021 Morphosys announced that it would acquire Constellation Pharmaceuticals for US$1.7 billion in cash. Constellation's lead asset was pelabresib, which six months earlier started a 400 patient Phase III study with this drug candidate. This was in combination with the JAK inhibitor ruxolitinib, in patients with myelofibrosis who were treatment naïve to ruxolitinib therapy.

It was an unusual acquisition whereby Morphosys financed much of the deal by selling off its royalty streams to existing products to Royalty Pharma.

Results of the study are summarised in the table on next page.

In the monotherapy arm, there were Grade 3 but no Grade 4 adverse events, with nine of the 46 patients discontinuing treatment. The most significant negative effect was thrombocytopenia (low platelet levels) which occurred in 15% of patients.

Treatments for myelofibrosis are measured in effectiveness in combination with a JAK inhibitor, ruxolitinib. Data from the Phase II Constellation study presented was mainly from the combination use, with 67% achieving greater than a 35% reduction in spleen volume. With respect to bone marrow fibrosis, 33% achieved at least a one grade improvement, 59% achieved stabilisation of BMF and only 4% showed a worsening of this measure at 24 weeks.

Pharmaxis Initial Data

In the Pharmaxis study, 18 patients have been enrolled with six of those stopping treatment due to lack of clinical response. These patients were either too far advanced or treatment without the combination of ruxolitinib did not show benefit.

Results from six patients have been released. Five of the six patients (83%) showed improvement or stability in BMF. One third of patients achieved a clinical improvement in symptoms and 83% achieved stable or improved platelet/haemoglobin levels.

Continued over

A particularly important aspect of this trial result so far is the benign safety profile of the PXS-5505, with no serious adverse events reported in the monotherapy. This compares to the Constellation drug candidate in which a 15% rate of thrombocytopenia (low platelet levels) was observed. By comparison, PXS-5505 has achieved an improvement in blood platelet levels in some patients, with two patients more than doubling their platelet levels.

When the Constellation drug candidate was combined with ruxolitinib, the thrombocytopenia incidence increased to 26%. The appeal of the Pharmaxis drug candidate at this point is the potential to maintain treatment with ruxolitinib for longer in combination use, whilst addressing the core fibrotic process in myelofibrosis.

Encouraging results from this study should allow the company to progress the program into a Phase II combination study with ruxolitinib, potentially also in ruxolitinib treatment naïve patients.

Significantly more data from Pharmaxis' Phase IIa study in myelofibrosis is expected around mid-year, with results from the 50 patients scar treatment study expected this half.

Pharmaxis is capitalised at just $36 million. Its proforma cash balance at the end of last year, including funds received last month from the R&D tax rebate, was $21.4 million.

Bioshares recommendation: **Speculative Buy Class A**

Phase II Data from Constellation Pharma in Myelofibrosis

Trial size	Result	Treatment	Patients
Improvement in at least 1 grade in bone marrow fibrosis at 24 weeks	30%	Monotherapy and combination therapy with JAK inhibitor (ruxolitinib)	**63**
Patients with at least 35% reduction in spleen volume at 24 weeks	67%	In combination with ruxolitinib	**63**
Patients with at least 50% reduction in total symptom scores at 24 weeks	57%	In combination with ruxolitinib	**63**
Worsening of bone marrow fibrosis	4%	In combination with ruxolitinib	**27**

How Bioshares Rates Stocks

For the purpose of valuation, Bioshares divides biotech stocks into two categories. The first group are stocks with existing positive cash flows or close to producing positive cash flows. The second group are stocks without near term positive cash flows, history of losses, or at early stages of commercialisation. In this second group, which are essentially speculative propositions, Bioshares grades them according to relative risk within that group, to better reflect the very large spread of risk within those stocks. For both groups, the rating "Take Some Profits" means that investors may re-weight their holding by selling between 25%-75% of a stock.

Group A

Stocks with existing positive cash flows or close to producing positive cash flows.

Buy	CMP is 20% < Fair Value
Accumulate	CMP is 10% < Fair Value
Hold	Value = CMP
Lighten	CMP is 10% > Fair Value
Sell	CMP is 20% > Fair Value

(CMP–Current Market Price)

Group B

Stocks without near term positive cash flows, history of losses, or at early stages of commercialisation.

Speculative Buy – Class A
These stocks will have more than one technology, product or investment in development, with perhaps those same technologies offering multiple opportunities. These features, coupled to the presence of alliances, partnerships and scientific advisory boards, indicate the stock is relative less risky than other biotech stocks.

Speculative Buy – Class B
These stocks may have more than one product or opportunity, and may even be close to market. However, they are likely to be lacking in several key areas. For example, their cash position is weak, or management or board may need strengthening.

Speculative Buy – Class C
These stocks generally have one product in development and lack many external validation features.

Speculative Hold – Class A or B or C

Sell

Corporate Subscribers: Cogstate, Opthea, Pharmaxis, Dimerix, Patrys, Antisense Therapeutics, Imugene, Chimeric Therapeutics, Neuren Pharmaceuticals, Aroa Biosurgery, Radiopharm Theranostics, Imricor Medical Systems, Anteris Technologies, Bio-Gene Technology, EBR Systems