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# Bioshares

19 August 2016  
Edition 661

*Delivering independent investment research to investors on Australian  
biotech, pharma and healthcare companies*

Companies covered: ADR, DVL, RAP,  
Medical Cannabis, 3 Private Capital  
Raises

	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)	-36%
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 - current)	13.6%
<b>Cumulative Gain</b>	<b>737%</b>
<b>Av. Annual gain (14 yrs)</b>	<b>18.4%</b>

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Extract from *Bioshares* –

## 12th Bioshares Biotech Summit Coverage

### **ResApp – Telemedicine Adoption Building**

The CEO of digital health company ResApp Health (RAP: \$0.35), Tony Keating, said that in developing the company's product, the approach has always been to treat it just as if it were a medical device; first conduct the clinical studies, clarify and set the regulatory pathway, and then bring the product to market.

Keating said that the first major adoption in digital health has been in the provision of telemedicine, which is working because it still has a doctor involved in the process. ResApp uses signatures in coughing sounds that match to respiratory diseases based on changes in the structure of the lungs.

Around 30% of all telemedicine consultations involve respiratory disease and Keating said that United Care in the US had measured this proportion as closer to 50%. However, there is currently no accurate remote diagnosis available for respiratory diseases.

#### **Clinical Study Results**

The original concept for ResApp was that a microphone with algorithms could hear more than a doctor with a low fidelity instrument like a stethoscope listening through a chest wall. ResApp has developed 'compelling evidence' with its technology said Keating in clinical studies involving 1,430 adult and pediatric patients.

Its initial study in 91 children in Indonesia had an accuracy of 90% in differentiating between Asthma and pneumonia (using a leave-one-out cross validation approach).

In Perth in an 880 pediatric study, differential diagnosis (once again using a leave-one-out cross validation approach) of pneumonia, croup, URTI and bronchiolitis achieved an accuracy of between 89-98%.

And an adult study in Perth has enrolled 510 patients with 143 patient data set obtained to date. Initial results show that the ResApp diagnostic had a 95% accuracy in differentiating between asthma and pneumonia and a 96% accuracy in separating asthma from COPD.

#### **Adoption of Telemedicine**

In the US it is estimated there were 75 million telehealth consultations in 2014 and that the addressable market is worth US\$12 billion per annum. Last year integrated managed care group Kaiser Permanente coordinated two million telehealth consultations using its own technology that was provided to its own doctors said Keating. Walgreens is offering telehealth consultations. The Department of Veteran Affairs also facilitated around two million consultations last year.

*Cont'd over*

– *ResApp cont'd*

In the UK, the NHS is starting to reimburse telehealth consultations. Medgate in Europe is providing a significant number of telehealth consultations. Telstra Health is facilitating telehealth in Australia and insurance group HCF is starting to provide telehealth services to its customers, said Keating.

Asia is a large market because of the high prevalence of respiratory illnesses (from smoking and pollution) and in countries such as China where there is a nationwide shortage of doctors. Healthcare provider Ping An Haoyisheng in China is providing around 95,000 telehealth appointments a day.

Keating said that the company is in discussions with groups across different regions. The approach the company is likely to take outside of the US is to gain regulatory approval in Europe first and then come back to Australia using its European market clearance.

There are several benefits of telemedicine according to Keating. Not only is there the convenience for the patient, but patients in the country can access better doctors. There is also convenience for the doctors, who can work from home, and doctors are also seeing an increased throughput and higher revenues said Keating.

### **US Entry**

Keating said the company has good clarity on what it needs to do to achieve regulatory clearance from the FDA. It will initiate its US studies in children this quarter, starting at the Massachusetts General Hospital. ResApp is aiming to gain entry into the US market in early 2017.

### **Business Model**

The main market ResApp is pursuing is the business-to-business model, where the product is used by Telemedicine providers. ResApp would charge less than \$10 per test.

It is also working with a partner to provide the product in developing world in areas such as India, Western Africa and Bangladesh, which was the original intent for the technology.

For this market, the company plans to charge an annual subscription to Aid Agencies. For the direct-to-consumer use further on, the company would charge a fee for the App and a fee each time the test is used.

**Bioshares**

**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 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 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**

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