

RECOMMENDATIONS

Rating	BUY ▲
Risk	Speculative
Price Target	\$0.55
Share Price	\$0.30

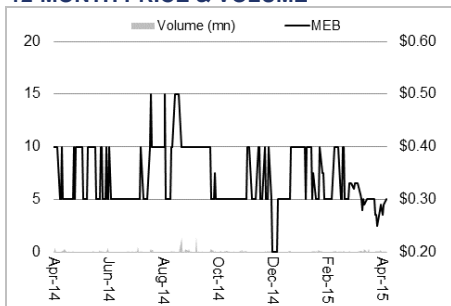
SNAPSHOT

Monthly Turnover	\$0.4mn
Market Cap	\$19mn
Shares Issued	65.9mn
52-Week High	\$0.50
52-Week Low	\$0.20
Sector	Health Care

BUSINESS DESCRIPTION

Medibio is developing a new diagnostic test for mental illness which we call the Invatec test. This test is based on measured differences in heart rate variability analysed using proprietary algorithms. Medibio argues that its test is simple, non-invasive, safe and quick, with potential to become the world's first quantitative, evidenced-based test for mental illness.

12-MONTH PRICE & VOLUME



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Disclosure

The author owns no shares in MEB.

Baillieu Holst Ltd has acted in a corporate advisory role for MEB and earned fees in relation to that activity in the past 12 months.

Medibio (MEB)

COMPANY REPORT

Bright prospects for a dark subject

- Overall:** We review our investment thesis, valuation and price target, and earnings forecasts for MEB (formerly Bioprospect) in light of a number of recent corporate developments. We also note a change of analyst.
- Commercialisation study:** MEB recently released the results of its commercialisation study, which was performed by US-based medical consultants The Ametus Group. In short, the study confirmed that a market and product opportunity exists in the US, subject to receipt of FDA approval. The study estimated that the total market opportunity could be US\$2.3bn for depression. If MEB can achieve a market share of 5% within five years, this would represent annual revenue of around US\$100m.
- Corporate developments:** We note a number of recent developments for the company, including: 1) a share consolidation on 20 March (1 for 100 shares), 2) a \$2.6m equity capital raising completed on 2 April to fund ongoing product development and operating expenses, 3) the acquisition of 100% of Invatec, the owner of the circadian heart rate (CHR) technology; and 4) a Board reorganisation on 7 April, 2015.
- Changes to valuation:** Our valuation and price target of \$0.55 (from \$0.90) is a blend of our base (\$0.31) and bull (\$0.79) case scenarios. Our valuation methodology remains unchanged (probability-weighted DCF, 50:50 between base and bull case). Some of our inputs have been modified given recent changes in the company's capital structure.
- Investment thesis:** We maintain a BUY on the stock with a Speculative risk rating. MEB is aiming to introduce the first FDA approved, evidence-based test for depression and anxiety. Should the test be validated and successfully commercialised, the scope of the potential revenue opportunity is substantial, with a large prevalence of depression in most industrialised countries. Product developments on two fronts (medical and corporate) are well underway. MEB has engaged the John Hopkins School of Medicine in the USA to validate its technology to support FDA certification. Meanwhile, MEB is also developing a corporate stress and mental wellness product, and investigating potential distribution and/or licensing arrangements with third parties in Australia.
- Expected milestones:** Before the end of CY15, MEB is looking for results from two separate validation studies (USA and Australia) as well as the commercial launch of its Corporate Stress product. MEB is also aiming to make its FDA submission before the end of the year.

INVESTMENT SUMMARY

Year End: 30 June		2013(A)	2014(A)	2015(E)	2016(E)	2017(E)
Revenue	\$mn	0.02	0.00	0.00	2.50	5.00
EBITDA	\$mn	-0.90	-0.32	-3.20	-0.96	0.77
EBIT	\$mn	-0.90	-0.32	-3.20	-0.96	0.77
Reported Profit	\$mn	-1.10	-0.43	-3.21	-1.11	0.43
Adjusted Profit	\$mn	-1.10	-0.43	-3.21	-1.11	0.43
EPS (Reported)	¢	0.0	0.0	-2.9	-0.7	0.3
EPS (Adjusted)	¢	0.0	0.0	-2.9	-0.7	0.3
EPS Growth	%	n/a	n/a	n/a	n/a	n/a
PER (Reported)	x	n/a	n/a	n/a	n/a	110.9
PER (Adjusted)	x	n/a	n/a	n/a	n/a	110.9
Dividend	A¢	0.0	0.0	0.0	0.0	0.0
Yield	%	0.0	0.0	0.0	0.0	0.0
Franking	%	0	0	0	0	0

Financial summary

Code: MEB
Analyst: Nicolas Burgess
Date: 22 April, 2015
Share Price: \$0.30
Market Capitalisation: \$33m
Year End: 30 June

Rating: **BUY**
Price Target: **\$0.55**
Upside/downside: 82.8%
Valuation: \$0.55
Valuation method: DCF
Risk: Speculative

PROFIT & LOSS (A\$m)	FY13A	FY14A	FY15E	FY16E	FY17E
Operating revenue	0.02	0.00	0.00	2.50	5.00
COGS	-0.02	0.00	0.00	-0.63	-1.25
Gross profit	0.00	0.00	0.00	1.88	3.75
Other revenue	0.01	0.47	0.40	0.00	0.00
Impairment	0.00	0.00	-0.90	0.00	0.00
Expenses	-0.90	-0.79	-2.70	-2.84	-2.98
EBITDA	-0.90	-0.32	-3.20	-0.96	0.77
Depreciation	0.00	0.00	0.00	0.00	0.00
EBITA	-0.90	-0.32	-3.20	-0.96	0.77
Amortisation	0.00	0.00	0.00	0.00	0.00
EBIT	-0.90	-0.32	-3.20	-0.96	0.77
Interest expense	-0.19	-0.11	-0.01	-0.15	-0.16
Underlying PBT	-1.10	-0.43	-3.21	-1.11	0.61
Tax	0.00	0.00	0.00	0.00	-0.18
Minorities	0.00	0.00	0.00	0.00	0.00
Underlying NPAT	-1.10	-0.43	-3.21	-1.11	0.43
Significant items (pre tax)	0.00	0.00	0.00	0.00	0.00
Tax effect	0.00	0.00	0.00	0.00	0.00
Reported profit	-1.10	-0.43	-3.21	-1.11	0.43

BALANCE SHEET (A\$m)	FY13A	FY14A	FY15E	FY16E	FY17E
Assets					
Cash	0.2	0.1	1.1	4.6	4.8
Receivables	0.0	0.1	0.1	0.6	1.2
PPE	0.0	0.0	0.0	0.0	0.1
Goodwill	0.0	0.0	0.0	0.0	0.0
Intangibles	0.0	0.3	0.3	0.3	0.3
Other assets	5.2	4.5	4.5	4.5	4.5
Total Assets	5.4	5.0	6.1	10.0	11.0
Liabilities					
Payables	0.4	0.4	0.4	0.5	1.0
Debt	2.0	1.5	0.0	0.0	0.0
Provisions	0.0	0.0	0.0	0.0	0.0
Tax liabilities	0.0	0.0	0.0	0.0	0.0
Other liabilities	0.5	0.4	3.6	3.6	3.5
Total Liabilities	2.9	2.3	4.0	4.1	4.5
Equity					
Share capital	36.7	37.3	39.9	44.9	44.9
Retained earnings	-37.0	-34.5	-37.8	-38.9	-38.4
Other equity	2.9	0.0	0.0	0.0	0.0
Total shareholders equity	2.5	2.7	2.1	6.0	6.4
BV per share (cps)	10.1	9.3	1.9	4.0	4.1
NTA per share (cps)	10.1	9.3	1.9	4.0	4.1

CASH FLOW (A\$m)	FY13A	FY14A	FY15E	FY16E	FY17E
Cash at Start	0.1	0.2	0.1	1.1	4.6
Cash from from ops	-1.2	-0.6	-3.2	-1.5	0.3
Capex	0.0	0.0	0.0	-0.1	-0.1
Free cash flow	-1.2	-0.6	-3.2	-1.6	0.2
Free cash flow per share (cps)	-	-2.1	-2.9	-1.0	0.1
Cash flow from investing	0.0	1.3	0.0	0.0	0.0
Cash flow from financing	1.3	-0.8	4.3	5.0	0.0
Cash at end	0.2	0.1	1.1	4.6	4.8
GOCF / EBITDA	-	-	95%	95%	95%
FCF / Underlying cash NPAT	-	-	100%	140%	53%

EARNINGS	FY13A	FY14A	FY15E	FY16E	FY17E
EPS - Underling cash (diluted)	0.0	0.0	-2.9	-0.7	0.3
EPS Growth - underlying	-	-	-	-	-
EPS - Reported (diluted)	0.0	0.0	-2.9	-0.7	0.3
Diluted shares (m)	25.1	29.0	110.6	149.9	158.2
DPS (cps)	0.0	0.0	0.0	0.0	0.0
Payout Ratio	0%	0%	0%	0%	0%
Franking	0%	0%	0%	0%	0%

VALUATION	FY13A	FY14A	FY15E	FY16E	FY17E
P/E (x)	-	-	-	-	110.9
EV/EBITA (x)	-	-	-	-	36.7
EV/EBITDA (x)	-	-	-	-	36.7
Dividend Yield (%)	0.0%	0.0%	0.0%	0.0%	0.0%
Price/Revenue (x)	-	-	-	13.3	6.6
Price/Book (x)	3.0	3.2	15.8	7.5	7.4
Price/NTA (x)	3.0	3.2	15.8	7.5	7.4
Price/FCF	-	-	-	-	208.1

MARGINS & RETURNS	FY13A	FY14A	FY15E	FY16E	FY17E
EBITDA Margin	-	-	-	-38.4%	15.5%
EBITA Margin	-	-	-	-38.4%	15.5%
NPBT Margin	-	133.4%	100.4%	116.1%	79.1%
ROIC	-	-7.1%	-117.2%	-81.5%	36.0%
ROE	-	-15.8%	-133.5%	-27.5%	6.9%
ROA	-	-6.4%	-57.5%	-11.9%	7.4%
Effective Tax Rate	-	0.0%	0.0%	0.0%	30.0%

GEARING	FY13A	FY14A	FY15E	FY16E	FY17E
Net Debt / (cash) (A\$m)	2.2	1.8	-1.1	-4.6	-4.8
Enterprise value	35.4	35.0	32.0	28.6	28.4

Medibio Limited (MEB) – BUY, \$0.55 Target Price

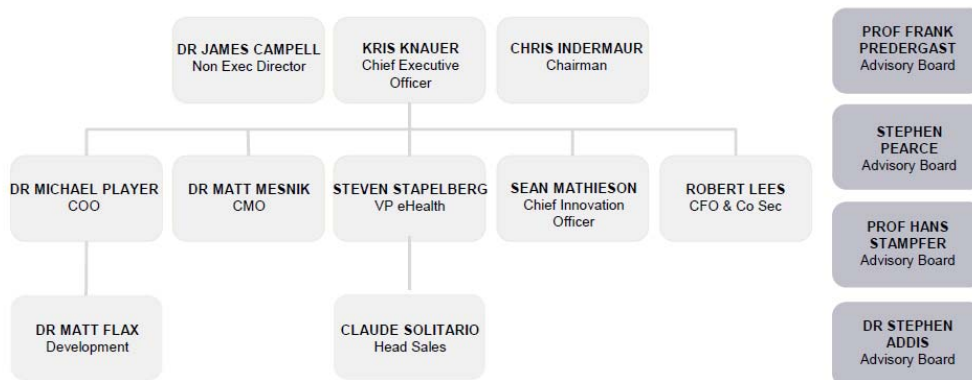
- We review our investment thesis, valuation and price target, and earnings forecasts for MEB (formerly Bioprosect) in light of a number of recent corporate developments.
- We also note a change of analyst.

Company developments

Since our last update ('Diagnosing mental health just got a whole lot easier', Initiation Report, 27 October 2014), there have been a number of developments with MEB.

- **Release of the commercialisation study:** MEB released the results of its commercialisation study in February, performed by US-based medical consultants The Ametus Group. In short, the study confirmed that a market and product opportunity exists in the US, subject to receipt of FDA approval. The study asserted:
 - 90% of clinicians surveyed would use a CHR-based diagnostic once clinically proven and reimbursable.
 - There are various CPT codes and payment structures which may be applicable for MEB's product. At the current average rebate under those codes of US\$45 per test, MBO would be able to achieve strong operating margins based on its current cost structure.
 - The total market opportunity is estimated at US\$2.3bn for depression, with Ametus estimating MBO's market share at 5% within five years, equating to annual revenue of around US\$100m.
- **Share consolidation:** On 20 March MEB completed a 1 share for every 100 shares consolidation.
- **Capital raising:** MEB completed a \$2.6m capital raising on 2 April. It has acquired 100% of Invatec, including the circadian heart rate technology.
- **Board reorganisation:** MEB completed its board reorganisation on 7 April, 2015. The board comprises Kris Knauer (Executive Director), Chris Indermaur (Chair) and Dr James Campbell (Non-Executive Director). This includes the establishment of an Advisory Committee comprising Prof Frank Predergast, Stephen Pearce, Prof Hans Stampfer and Dr Stephen Addis.

FIG.1: MEB – BOARD OF DIRECTORS, MANAGEMENT, AND ADVISORY BOARD



Source: Company reports

- **Patent purchase:** MEB announced on 21 April it had acquired the US and Canadian patents for the CHR technology for the diagnosis of depression and other mental health disorders. MEB will pay US\$2.5m within three years, paying 8% interest on the purchase price in the meantime.

Changes to earnings forecasts

- We have made a number of changes to our forecasts, given the recent corporate developments. Our changes are outlined in the table below.

FIG.2: CHANGES TO EARNINGS

	FY15F		FY16F		FY17F	
	Old	New	Old	New	Old	New
Revenue	0.3	0.0	3.2	2.5	7.5	5.0
Operating EBITDA	-2.6	-3.2	-0.4	-1.0	2.7	0.8
Reported NPAT	-2.7	-3.2	-0.5	-1.1	2.5	0.4
Diluted EPS (cps)	0.0	-2.9	0.0	-0.7	0.0	0.3

Source: Baillieu Holst estimates

Changes to valuation

- Our valuation and price target of \$0.55 is an equally-weighted blend of our base case (\$0.31) and bull case (\$0.79) scenarios for MEB.
- **Methodology:** Our valuation methodology remains unchanged (probability-weighted DCF, 50:50 between base and bull case). Some of our inputs have been modified given the company's progress and a number of recent developments.
- **WACC:** Our WACC is now 22.5%, in line with the "High" case outlined in the Independent Experts Report (Grant Thornton).
- **Projected revenue:** We use the commercialisation study from The Ametus Group (published 6 February, commissioned by MEB) as a guide in our long term (10 year) projections for MEB. As a reminder, The Ametus Group has identified a potentially highly profitable market opportunity with an estimated market size of US\$2.3bn. The Group pointed to a potential market share for MEB of 5%, which implies around US\$100m revenue for the company. Our base case projections assume around 50% success of the level indicated by the commercialisation study in the US market, our bull case assumes 80% success.
- **Shares:** We value the business on a fully diluted basis, using the share count outlined below. On top of this, we assume the company raises a further \$5m equity in FY16F for growth purposes.

FIG.3: POST CONSOLIDATION SHARE COUNT

	Shares June-15F
Shares on issue post placement (excluding escrow)	65,872,948
Shares in escrow	23,929,979
Basic share count	89,802,927
Potential Milestone shares	19,890,000
Potential Heartlink shares	10,346,803
Options at \$0.10 (expiry Apr-18)	14,863,342
Options at \$0.30 (expiry Apr-17)	6,666,667
Diluted share count	141,569,739

Source: IRESS, Company Reports

Investment thesis

- We maintain a BUY rating on the stock with a price target of \$0.55 and a Speculative risk rating.
- **About MEB:** MEB is a medical technology business and is aiming to introduce the first FDA approved, evidence-based test for depression and anxiety. The diagnostic test has been developed after 15 years of research and is based on differences in circadian heart rate (CHR) and heart rate variability, which point to the likelihood of depression or other mental illness. Monitored heart rate data is analysed with the aid proprietary algorithms to deliver quantified diagnoses.
- **Substantial market opportunity:** There is a large prevalence of depression in most industrialised countries – perhaps 4-5% of the adult population – and there is currently no objective way for physicians to diagnose the condition. MEB believes that its test would be the world’s first quantitative, evidenced-based test for mental illness.
- **Medical test:** The company is currently pursuing two different routes to sales: the medical test and the corporate test. The medical test will be a physician-administered diagnostic and is currently subject to clinical validation and regulatory approval. MEB has engaged the John Hopkins School of Medicine in the USA to validate the use of MEB’s CHR technology to differentiate between depressed and non-depressed individuals. The study is designed to provide clinical data to support FDA certification of MEB’s depression test. Results from the validation study are expected by the end of CY15, with potential FDA approval expected around 12 months later. Meanwhile, a further validation study is being conducted in Australia by the Black Dog Institute to demonstrate if the CHR technology can distinguish between melancholic (i.e. biological) and non-melancholic (i.e. social) depression.
- **Corporate test:** The company is also developing a corporate stress and mental wellness product for application in high risk occupations (it is unclear at this point whether this product would require regulatory approval). The product can be used to give a CHR score out of ten and thus point to potential risk areas for employers and employees. MEB is currently investigating potential distribution and/or licensing arrangements with third party distributors in Australia, such as health insurers and corporate wellness consultants, before looking at opportunities offshore. Meanwhile, the company is also investigating options for the corporate product, once fully developed, to be adapted for the consumer market via a smart phone/tablet app.
- **Timeline and milestones:** We present the company’s expected milestones in the figure below.

FIG.4: MEB – MILESTONE TIMELINE

Timing	Milestone	Status
Q4 2014	Australian and US validation studies (BDI & JHU)	✓
Q1 2015	Delivery of Commercialisation Study (AMETUS)	✓
	Establish World-Class Advisory Board (Dr Prendergast)	✓
Q2 2015	Acquisition remaining patents covering the technology (USA/Canada)	
	Complete beta testing of Stress Algorithms	
	Strategic Device Partner	
	Announcement of foundation customers	
	Pre-submission package delivered to the FDA and FDA feedback	
Q3 2015	Complete development of Corporate Stress product	
	Commercial launch of Corporate Stress product	
Q4 2015	Results from U.S./Australian validation studies published	
	Commercial launch of Consumer Stress App (subject to device)	

Source: Company reports

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Buy: The stock's total return is expected to increase by at least 10-15 percent from the current share price over the next 12 months.

Hold: The stock's total return is expected to trade within a range of ± 10 -15 percent from the current share price over the next 12 months.

Sell: The stock's total return is expected to decrease by at least 10-15 percent from the current share price over the next 12 months.

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