

Due Diligence and Valuation Report

Arrowhead Code: 68-02-01
Coverage initiated: 13 August 2015
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Fair share value bracket-DCF: A\$ 2.16 and A\$ 3.74
Share price (13 Aug. 15): A\$ 0.43ⁱ

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Medibio
Limited

Company: Medibio Ltd.
Ticker: ASX : MEB
Headquarters: Sydney, Australia
CEO: Mr. Kris Knauer
COO: Dr. Michael Player
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Website: www.medibio.com

Market Data

52-Week Range:	A\$ 0.20 - A\$ 0.50 ⁱⁱ
Average Daily Volume:	82,823 ⁱⁱⁱ
Market Cap. (13-Aug-15):	A\$ 38.9 MM

Financial Forecast (in A\$) (FY ending - Jun)

\$	'15E	'16E	'17E	'18E	'19E	'20E	'21E
High NI MM	(1.0)	3.2	23.0	59.0	61.3	80.9	108.6
High EPS (Diluted)	(0.01)	0.03	0.21	0.53	0.55	0.72	0.97
Low NI MM	(1.0)	1.2	10.5	30.1	33.7	46.4	63.1
Low EPS (Diluted)	(0.01)	0.01	0.09	0.27	0.30	0.41	0.56

Company Overview: Medibio Ltd. (herein referred to as "Medibio" or "the Company") is a Sydney-based medical technology company developing first evidence-based quantitative assessment of various mental health disorders and plans to attain approval from the US Food and Drug Administration (FDA) for the same. It is currently focusing on the quantitative diagnosis and treatment monitoring for depression and stress. Further, it aims to extend the technology to identify whether a person is affected by melancholic or non-melancholic depression. The Company was formerly known as BioProspect Ltd. and changed its name to Medibio Ltd. in November 2014. Established in 1998, it is a publicly held company, listed on the ASX Exchange under the symbol "MEB".

Medibio has developed an algorithm to analyze and identify deviations in circadian heart rate (CHR) from normal levels to diagnose whether a person is affected by any mental health disorder. The Company's technology can also be used to assess the effectiveness of administered treatment and change in the mental health position of the subject. In addition, Medibio also plans to utilize its technology to non-clinical stress markets as a corporate wellness product and personal health monitoring application which will be used in combination with wearable devices.

Arrowhead is initiating coverage on Medibio Ltd. with a fair value bracket of A\$ 2.16 (Low-Bracket estimate) and A\$3.74 (High-Bracket estimate).

Key Highlights: (1) Potential to be the first FDA approved quantitative diagnosis and treatment monitoring of depression and other mental illnesses; (2) Clinical trials reflecting favorable results, with high successful diagnosis rates; (3) Focuses on CHR to obtain objective, quantifiable diagnosis of mental illnesses compared to existing questionnaire and logical deduction based practices; (4) Partnered with the US and Australia based universities to validate the research. It will help in obtaining the regulatory approvals; (5) Existence of predicate to enable relatively faster approval with class II (moderate risk) classification; (6) Partnership with various equipment manufacturers and medical care delivery organization to expedite market entry and customer acquisition, while maintaining low capex requirements; (7) Corporate product and consumer app launch expected by 2H FY 2016, while clinical market to be launched by FY 2018; (8) Medibio expected to be profitable from first full year of operations due to large market potential, lean market entry strategy and minimal costs; (9) Potential to expand to other mental illness markets; (10) The Company plans to launch its products initially in the US and Australia, and then expand to Canada, Europe and other markets based on cash position

Key Risks: Key risks include the uncertainty related to medical reimbursements for mental illnesses and risk of new emerging technologies.

Valuation and Assumptions: On the basis of due diligence and valuation estimates, Arrowhead believes that Medibio's fair share value lies in the A\$ 2.16 - A\$ 3.74 bracket using Discounted Cash Flow (DCF), which is our primary valuation methodology.^{iv} We have also valued the Company equity using discounted P/E method, which estimates the fair value at A\$ 1.84 - A\$ 2.92 bracket. We have assumed that Medibio will be able to generate revenue from corporate and consumer app markets from FY 2016 onward.

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1. Summary and Outlook

We initiate coverage on Medibio Ltd., headquartered in Sydney, Australia, a medical technology company focused on developing a new diagnostic test offering quantifiable results for depression, stress, and other mental health disorders. It also has a few legacy drugs in the human health, personal care, animal health and nutrition and agricultural sectors.

Key Highlights:

- (1) Medibio's circadian heart rate - variability (CHR-V) technology has the potential to be the first US FDA approved, evidence-based quantitative technique for diagnosing and monitoring depression and other mental ailments.
- (2) The clinical trials for CHR-V technology have shown favorable results, with a successful diagnosis rate in excess of 80% in comparison to clinician diagnoses.
- (3) The Company's patented algorithm analyses the subject's CHR to identify certain biological markers which are different from a healthy individual to diagnose mental illnesses.
- (4) Management has partnered with John Hopkins University (JHU) of the USA and Black Dog Institute (BDI) of Australia to research further on its technology and provide the required data for obtaining the regulatory approvals. The Company has also hired a regulatory advisory and clinical research organization (CRO), NAMAS, to help it complete regulatory requirements.
- (5) The Company's FDA application will be a denovo 510k application. After the initial approval for depression the depression test will become the predicate for other medibio diagnostic algorithms. The Company's software is expected to be categorized as a class II product which signifies moderate risk.
- (6) Medibio plans to partner with several medical care delivery organizations and remote heart rate monitoring equipment manufacturers to launch its product for clinical (medical) and corporate category of consumers. We expect launch of CHR-V based product for medical segment by FY 2018 and corporate segment by second half of FY 2016.
- (7) The Company has also developed "mybettermind" app for Android and iOS based wearable devices to provide personal stress monitoring services. It expects to launch this app by the end of CY 2015.
- (8) Based on low variable cost business model, we expect the Company to be profitable from the first of operations in FY 2016. We have factored per test gross reimbursements of A\$ 45 for medical segment while it varies between A\$ 2 to 25 for corporate customers in the US. In addition, we estimate annual subscription charge of A\$ 10 –A\$ 12 per user for consumer app in our financial projections.
- (9) Medibio plans to expand its CHR-V technology for the diagnosis and treatment monitoring of other mental illnesses such as, anxiety disorder, panic disorder and schizophrenia.

Key Risks: Key risks include the uncertainty related to reimbursement of medical expenses on mental health disorder by insurance companies and possibility of new emergent technologies.

Industry Overview: Medibio is developing an algorithm to analyze CHR data to diagnose and monitor effectiveness of treatment for depression and other mental illnesses. According to World Health Organization (WHO), approximately 350 MM^v people are affected by depression worldwide and with one-year prevalence rate of about 10% and lifetime prevalence of 17%^{vi}. Moreover, several companies are witnessing increase corporate stress level and have started to invest in employee health initiatives. It provides large market potential for the quantifiable monitoring of work place stress. However, the current diagnosis and treatment are guided by diagnostic and statistical manual of mental disorders (DSM) by the American Psychiatric Association (APA). The current diagnosis and treatment of depression is primarily based on the personal interaction between the medical practitioner and the patient. Medibio's CHR-V based algorithm may result in the world's first FDA approved evidence based quantitative measure for diagnosing depression.

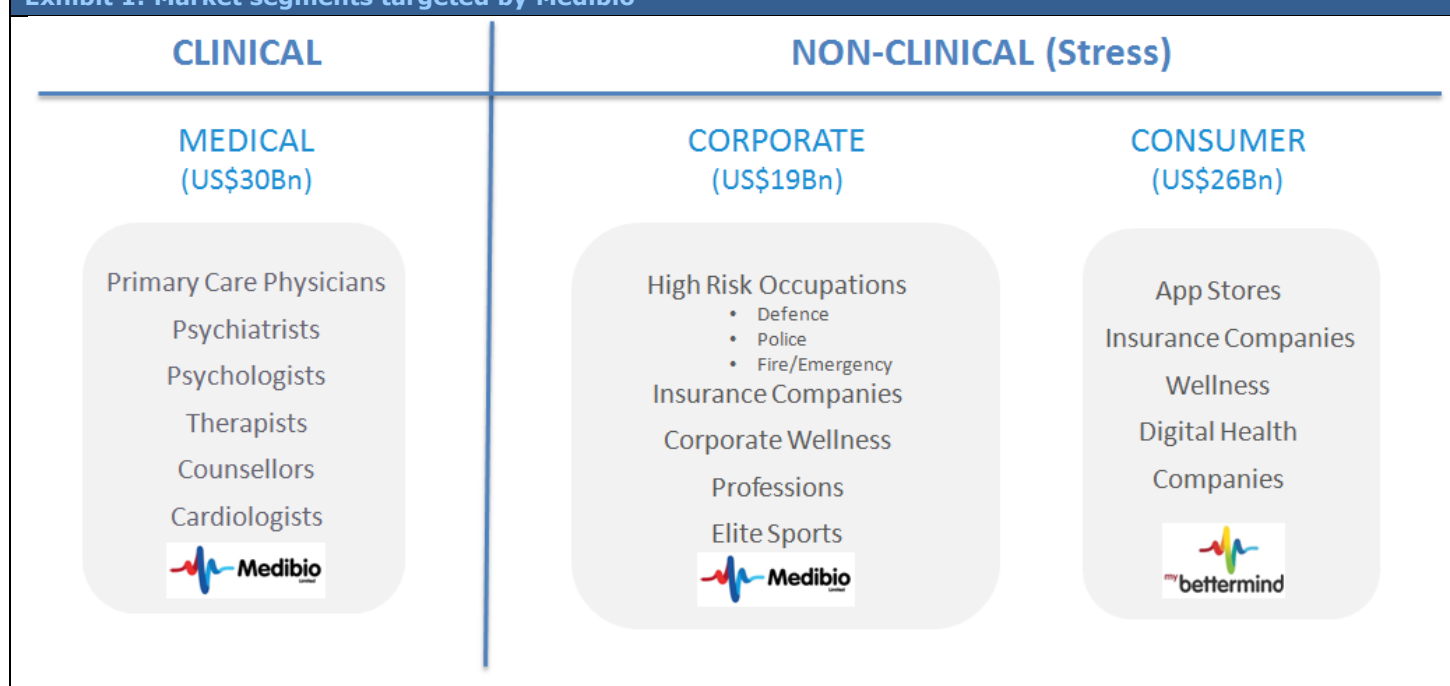
2. Business Overview^{vii}:

Medibio Ltd. (formerly known as BioProspect Ltd.) was established in 1998 with headquarters in Sydney, Australia. The Company is a medical technology and research company focused on developing diagnostic test which will offer quantifiable result for depression, anxiety and other mental disorders. Medibio also has a few legacy drugs in the human health, personal care, animal health and nutrition and agricultural sectors. However, the company has already divested most of the assets and is in looking to divest others. The Company's ordinary shares are listed on the Australian Stock Exchange (Ticker: MEB).

On December 5, 2013, the Company entered into a definitive agreement with Invatec Health Pty Ltd. (Invatec), which provided Medibio an option to acquire up to 80% of the stake in Invatec in a two stage transaction. Invatec had developed a quantifiable method for diagnosing mental health disorders including depression, generalized anxiety disorder, acute psychosis and panic disorder by monitoring a subject's heart rate data. On April 14, 2014, the Company completed this transaction. In addition, it also acquired the remaining 20% stake in Invatec on January 29, 2015 based on positive result from an independent assessment of technology. The Company also entered into a separate agreement with Heartlink Ltd. (Heartlink), the patent holder of Invatec's CHR technology. The agreement provided Medibio an option to acquire an exclusive license to use its patents worldwide and also allowed it to acquire Heartlink's complete patent portfolio.

The HRV technology was developed based on over 15 years of research that was initiated by the University of Western Australia. The study involved the comparison of 24 hour heart rate data recording for the clinical diagnosis for over 5,000 test cases representing all major psychiatric disorders. The HRV Technology is the first objective and non-invasive, evidence based approach to the diagnosis of depression and other affective disorders. Medibio conducted due diligence, which showed a successful diagnosis rate in excess of 80% in comparison to clinician diagnoses in a blinded test of 98 patients. Medibio has devised a comprehensive commercialization plan, with first revenue stream expected by the end of CY 2015. The product has potential to be used by 1) medical practitioners for objective diagnosis and assessing the effectiveness of treatment, 2) corporate and enterprises for assessing employee workplace stress and 3) individuals to monitor personal health through application installed on their smart phones, which will source heart rate data from a wearable device. As there are no quantitative diagnostic methods available for depression currently, it offers a large market potential for the Company's diagnostic algorithms. Medibio has partnered with JHU in the US and the BDI in Australia to conduct further studies into its algorithm and to support the Company in obtaining regulatory approvals.

Exhibit 1: Market segments targeted by Medibio^{viii}



2.1 HRV technology: First evidence based quantitative assessment of depressive illness

2.1.1 Introduction to Depression^{ix}

The APA defines depression (a major depressive disorder) as a common and serious medical illness that negatively affects how an individual feels, the way he/she thinks and how he/she acts. It is a mental condition characterized by feelings of severe despondency, dejection, irritability, indecisiveness, impaired concentration, inadequacy and guilt, and often accompanied with lack of energy and disturbance of appetite and sleep. The symptoms vary depending on the individual's personality and his/her particular illness. Stress is a natural human response to pressure when faced

with threatening or challenging situation. This is usually believed to be beneficial for an individual and generally subsides over a period as stress inducing factors abate. However, this reversion to normal can be suppressed when individual is faced with frequent or repetitive stressful situations. It may also adversely affect the individual's health, impairment of immune system and general quality of life.

The diagnosis and treatment recommendation of depression is currently guided by DSM-5 issued by APA. Currently, the diagnosis is based on the personal interaction or interview with the patient and possibly a physical examination to make sure that the depression is not due to a medical condition. However, the US Institute of Mental Health has said that they will no longer endorse DSM-5 as it has fundamental flaws and they are actively seeking a quantitative method for diagnosing depression.

2.1.2 Circadian Heart Rate Variability "CHR-V" Technology^x

Medibio's technology focuses on CHR-V analysis, which adds an objective dimension to the diagnosis of depression/anxiety and the evaluation of treatment compared to current procedure of personal consultation. The Company's CHR-V analysis is based on the fact that the automatic nervous system (ANS) plays a key role in circadian sleep-wake regulation of physiological activity, including heart rate. Conventionally, mental illness is associated with disturbances in ANS/circadian regulation, with mental-linked ANS disturbance being observed via the cardiovascular system, particularly during sleep when external influences are absent. The Company's research shows the different forms of mental illness, such as anxiety and depression, are associated with distinctly different patterns of CHR, which helps in providing quantifiable measure of mental health. Also, CHR is 'state-dependent,' so a change in clinical status is associated with a change in CHR pattern, which helps in assessing the effectiveness of treatment being administered to the patient.

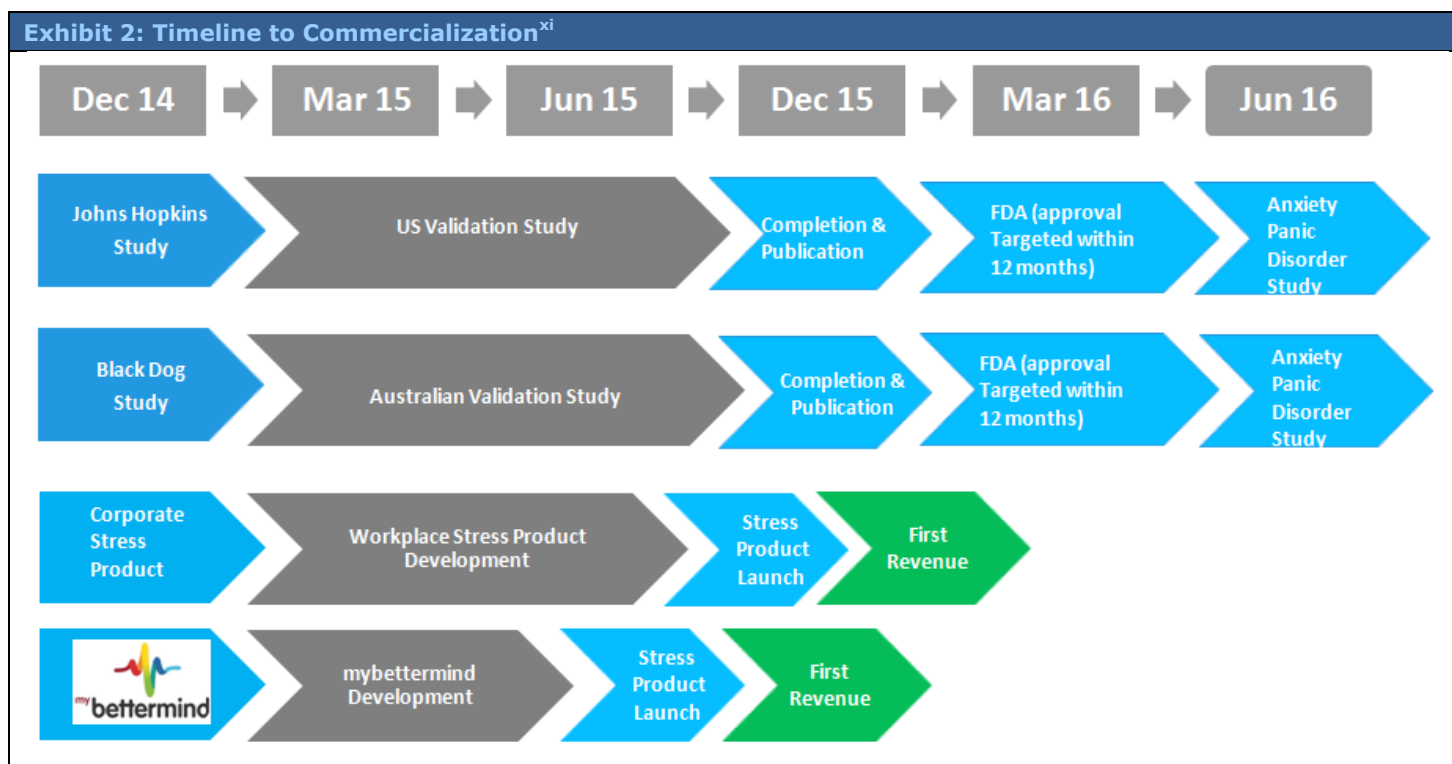
The Company's CHR-V algorithms compare the 24 hour rate data recording of an individual/patient to the clinical diagnoses for thousands of patients representing all major psychiatric disorders. The technology utilizes human heart rate characteristics, including certain tell-tale changes, as sensitive measures for depression. It will consist of a heart monitor that sends recordings wirelessly to internet server where a proprietary algorithm analyses and delivers a quantifiable score for depressive illness. Management believes that its technology provides an easy, non-intrusive and objective method of diagnosing and monitoring depression and other mental illnesses. (For more information, refer to Exhibit: 3-8)

The Company's research is currently focused on identifying whether a person is depressed or not, and to distinguish between melancholic and non-melancholic depression.

1. Medibio has partnered with JHU, in the US, for a total consideration of about A\$ 0.60 MM (U\$ 0.45 MM) to validate the use of its CHR technology to differentiate between depressed and non-depressed individuals. The study is designed to offer clinical data to support FDA certification of the Company's proprietary depression test. The study will provide results by end of CY 2015. As per the Company, the study conducted by JHU will need only 80-100 participants. Medibio has also partnered with Brain and Mind Research Institute (BMRI) to demonstrate that CHR-V technology can distinguish between normal, moderate and severe stress levels, which will be used for corporate clients.
2. To demonstrate that Medibio's CHR-V Technology can distinguish between melancholic and non-melancholic depression, the Company has tied up with BDI of Australia for a total consideration of A\$ 0.25 MM (U\$ 0.19 MM). The institute has already begun conducting the trials. The study aims to assess all the 80 participants by the end of Sep-15.
 - a. **Melancholic depression:** Melancholic depression is the classic form of biological depression. It is a more severe form of depression, with a lack of pleasure and difficulty in being cheered up. Also, the person suffering from this form of depression usually exhibits psychomotor disturbance (e.g., low energy, poor concentration, slowed or agitated movements). Melancholic depression has a low spontaneous remission rate. It responds best to physical treatments (for example, antidepressant drugs) and only minimally or none to non-physical treatments, such as counseling or psychotherapy.
 - b. **Non-melancholic depression:** This is primarily not biological. Instead, it is linked with psychological causes, and is very often linked to stressful events in a person's life, alone, or in conjunction with the individual's personality style. This kind of depression is more common and is also relatively hard to diagnose. In contrast to the other sub-types of depression, non-melancholic depression has a high rate of spontaneous remission. It also responds well to different sorts of psychological treatments as a first step (such as psychotherapies and counseling), and the treatment selected should respect the cause and maintenance of that depressive episode (e.g., stress, personality style). Antidepressant medications can also be used to treat non-melancholic depression.

3. Apart from partnering with JHU and BDI for further research, Medibio has appointed NAMAS, a US-based regulatory advisory and CRO, to assist with trial design and to ensure that the Company's depression validation study meets FDA regulatory requirements. NAMAS is working on protocol development and project implementation tasks in coordination with JHU and BDI, including pre-submission consultation with FDA.

Post the completion of depression diagnostic and monitoring test, Medibio plans to extend the CHR-V technology to general anxiety disorder (GAD), mixed depression/anxiety, panic disorder and psychosis. In addition, the Company will also be participating in a study investigating ECG traces in subjects with post-traumatic stress disorder (PTSD), which will commence in CY 2015.



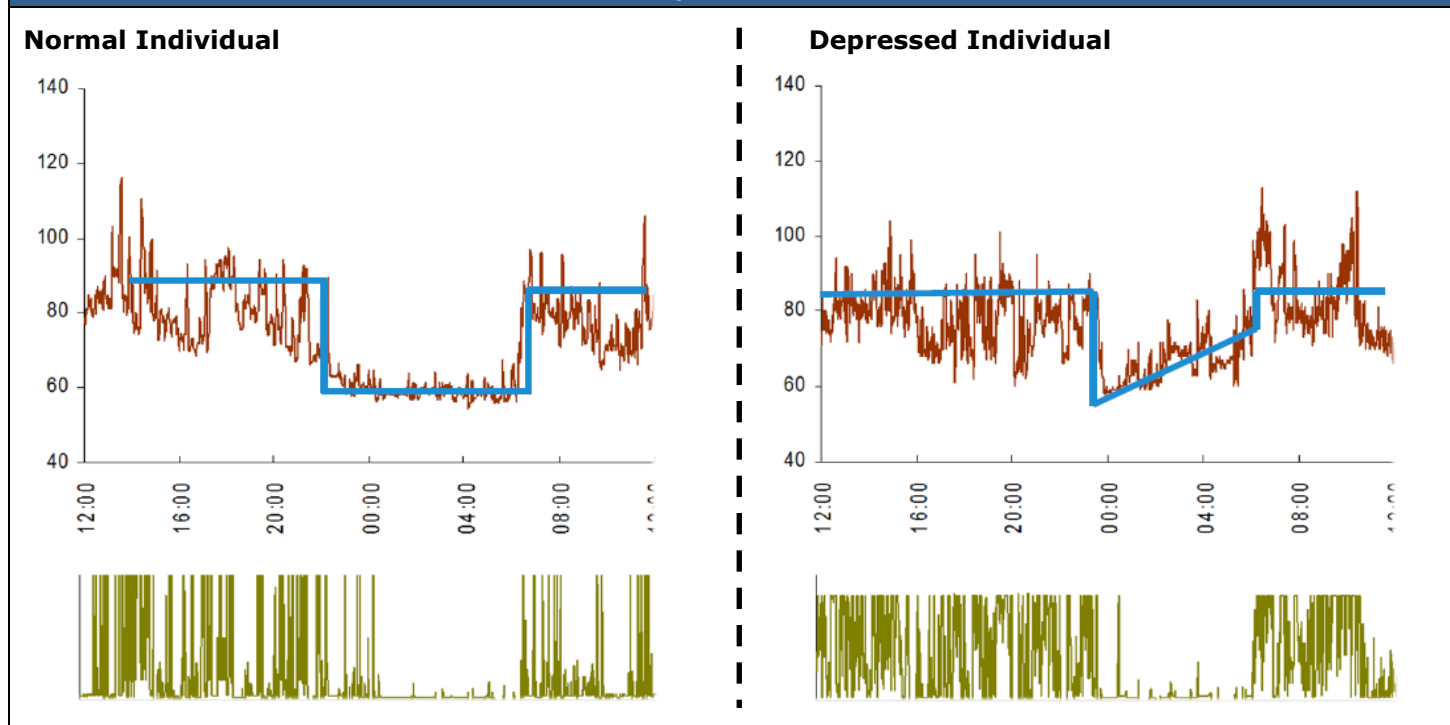
2.1.2 Analysis of heart rate

Medibio's technology analyzes CHR, as mental-linked ANS disturbance can be observed via the cardiovascular system, particularly during sleep when external influences are absent. The Company's current focus is only on diagnosis of depressed individuals and to differentiate between melancholic and non-melancholic depression. It plans to commence trials for general anxiety disorder, mixed depression/anxiety disorder and panic disorder by end of FY 2016 onwards. We have presented below the major trends observed in individual with different mental condition.

Normal Individual: For a normal individual, the CHR analysis has exhibited that sleep rates are visibly lower and less variable than awake rates and the onset of sleep and moment of waking show a clear change in the mean trend. Also, sleep and waking is usually brief and occurs quickly and body movement data clearly correlates with heart rate, with a cessation of movement during the sleep period.

Depressed Individual: CHR analysis of a patient suffering from depression shows that the 24-hour heart rate mean is within the normal range, but the sleep mean is slightly elevated compared to a normal individual. In addition, the heart rates fall to their lowest level shortly after the onset of sleep, and then rise progressively to awake values. As a result of the rising trend, the patient wakes up early which are a common symptom of depression. Also, the correlation between heart rate and body movement is variable for a person suffering from depression.

Exhibit 3: Difference in heart rate of normal and depressed individual ^{xii}



Anxiety Disorder: An anxiety disorder patient's CHR analysis exhibits that both the 24 hour and sleep heart rate means are moderately elevated and heart rates are high at the onset of sleep due to sustained daytime physiological arousal. Also, the heart rate declines to its lowest value an hour or two before waking and morning rates are also elevated, accounting for acute morning anxiety that is often experienced by sufferers.

Panic Disorder: The CHR analysis of a patient suffering from panic disorder highlights that the 24 hour and sleep means are within the normal range. Typically, the circadian pattern of panic disorder lacks a clearly defined sleep/wake variation but there are noticeable 'spikes' of sudden rate elevation throughout the 24 hour period. These spikes can be as high as 150 bpm and last up to 10 minutes and occur both during the day and at night. The body movement data indicate that this subject was resting or inactive for most of the day.

Exhibit 4: Heart rate profile of persons with anxiety disorders^{xiii}

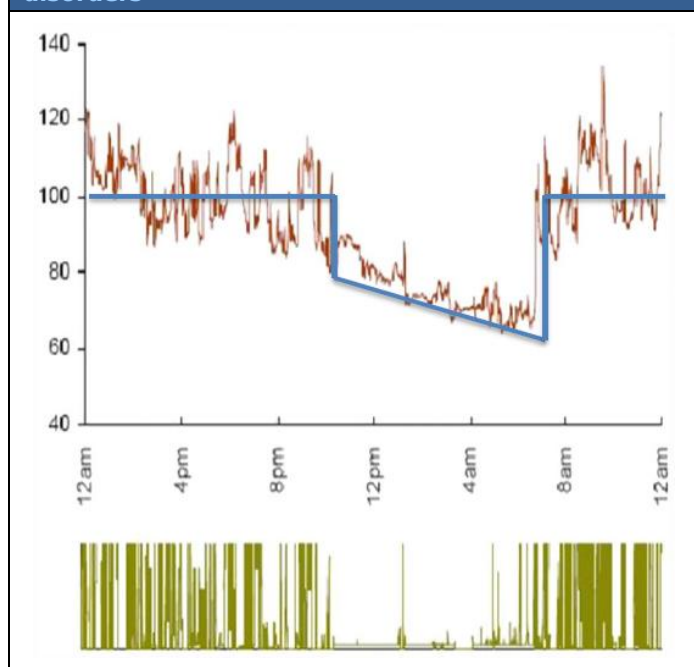
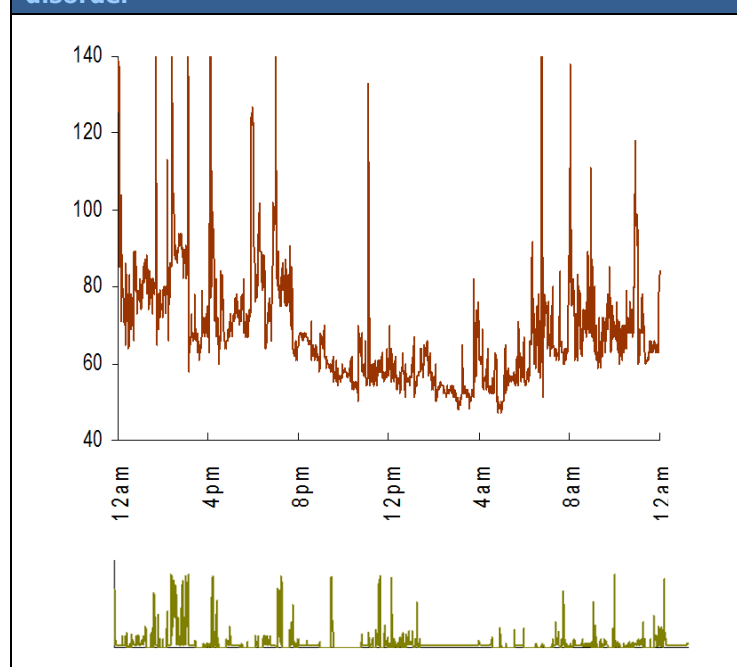


Exhibit 5: Heart rate profile of persons with panic disorder^{xiv}



Acute Psychosis: The CHR analysis of a patient suffering from acute psychosis reflects a severe elevation of heart rate means in the 24 hour period, morning, and afternoon and sleep epochs. The normal circadian functioning and regulation of the patient is severely disrupted and the sleep period is grossly disturbed with patchy sleep interspersed with abrupt awakening.

Schizoaffective Disorder: The Exhibit 7 represents the heart rate data for a 27 years old male diagnosed with schizophrenia. The first data recording (in red) reflects severe elevation of 24 hour and sleep means and a reduction in total sleep time. The pulse rate variability is reduced, most likely due to medication. The medication at monitoring one was risperidone 1mg mané and 2mg nocte.

The second heart rate analysis (in blue) shows lowering of 24 hour and sleep means; an improvement, although the pattern is not fully returned to normal. The medication at monitoring two was risperidone 2mg BD, valproate 500mg mané and 100mg nocté.

Exhibit 6: Heart rate profile of persons with acute psychosis^{xv}

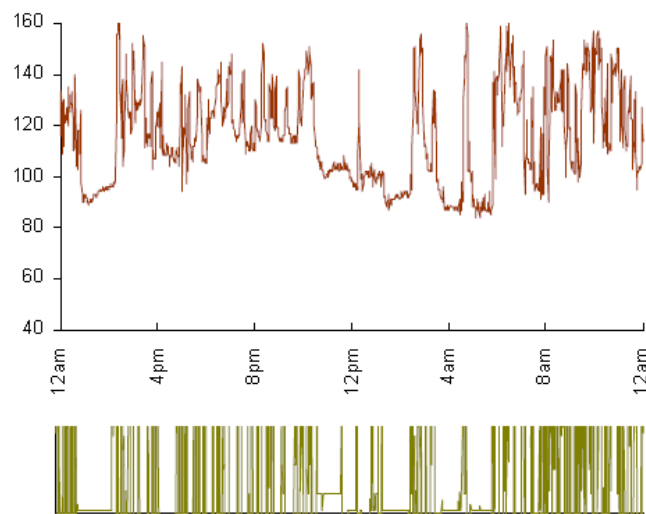
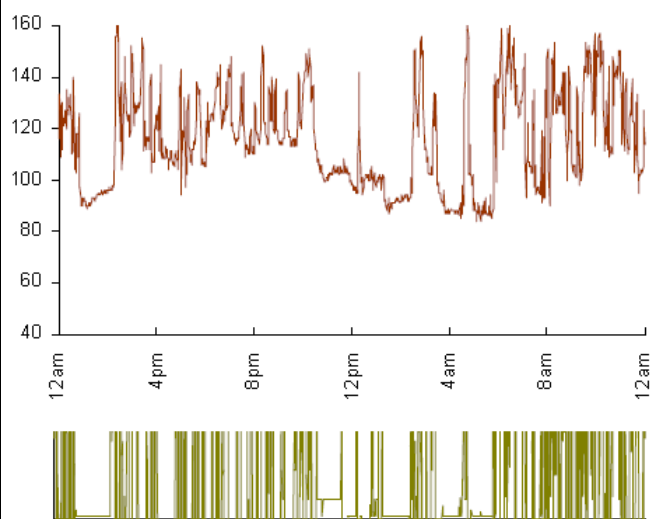
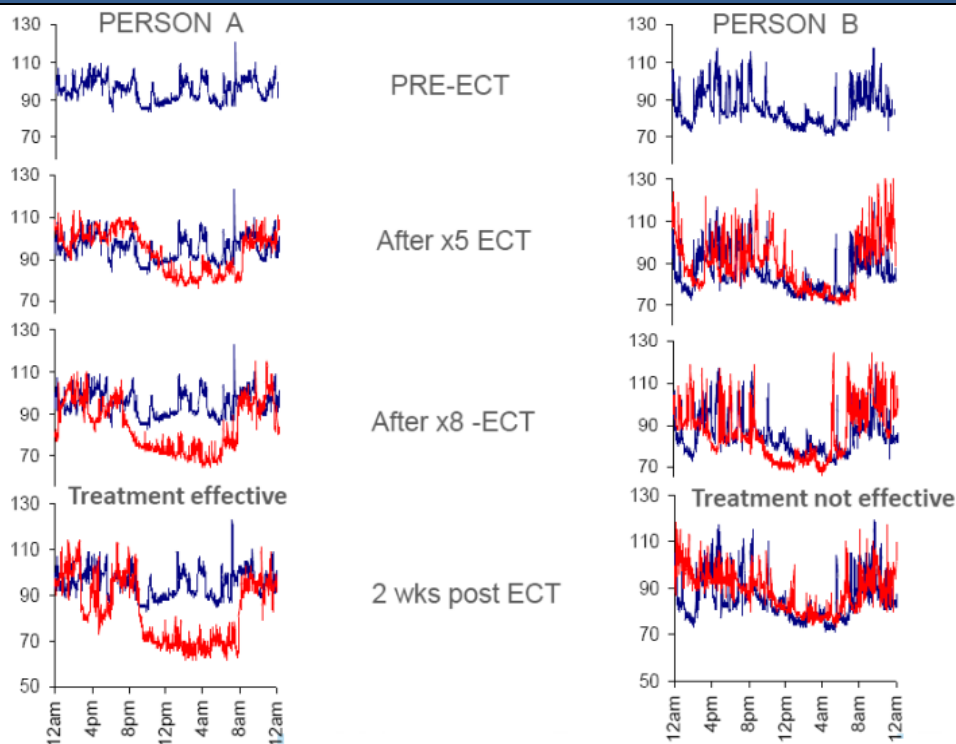


Exhibit 7: Improvement in schizoaffective disorder^{xvi}



Treatment monitoring: The Exhibit 8 represents the treatment monitoring mechanism for person A and B suffering from melancholic depression. It reflects that two weeks following effective intervention, CHR patter of subject A has improved significantly while condition of subject B has not improved, with his CHR pattern varying significantly from normal pattern. Subsequent to the monitoring Subject B was diagnosed as having a different mental health disorder which would not be expected to respond to Electro Convulsive Therapy.

Exhibit 8: Assessing effectiveness of electroconvulsive therapy (ECT) for melancholic depression^{xvii}



2.1.3 Commercialization plan

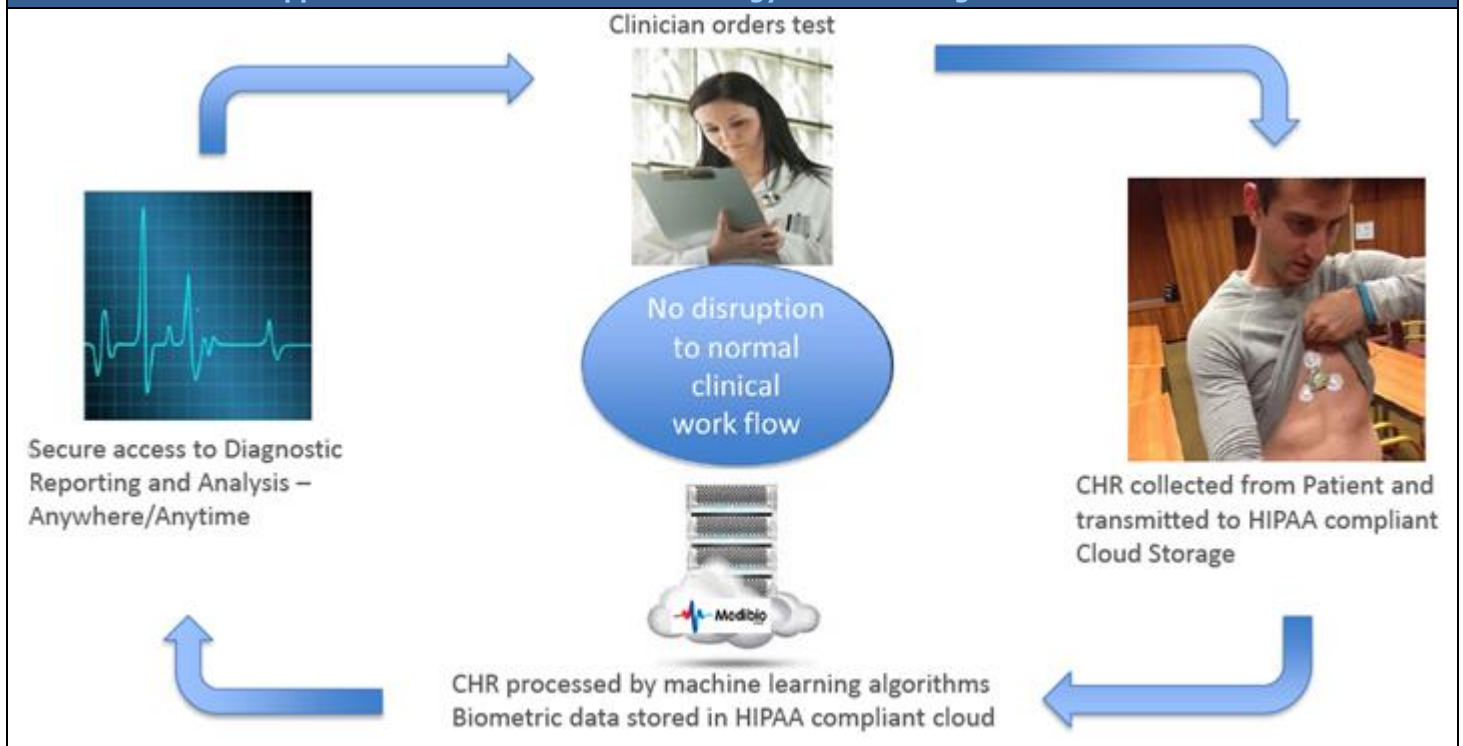
Medibio has prepared a commercialization plan for its CHR technology related to depression, based on a study conducted by The Ametus Group; a US-based medically focused strategic consulting organization. The key takeaways from the commercialization study are:

- About U\$ 2.3 BN revenue opportunity in the US, which is likely to be highly profitable
- Ready acceptance of the technology post FDA approval
- Existing reimbursement codes that may be leveraged for commercialization
- No competing FDA approved evidence based products to assist clinicians for depression
- Potential market share of 5% within 5 years, which would generate annual revenue of approximately U\$100 MM

Medibio plans to offer its diagnostic services under three different business lines as described below^{xviii}:

1. **Medical:** The Company estimates that the medical segment has a market potential of about U\$ 30 BN. The primary users would be primary care physicians (PCP), psychiatrists, psychologists, therapists, counselors and cardiologists. Medibio will need a FDA approval before it can offer services to this market. Based on the Company's timeline, we expect it to commercially launch its first product only in FY 2018. As per Medibio's June 2015 investor presentation, it expects to achieve annual revenue of U\$ 60 MM from Medical (Depression diagnostic) market in next five years.

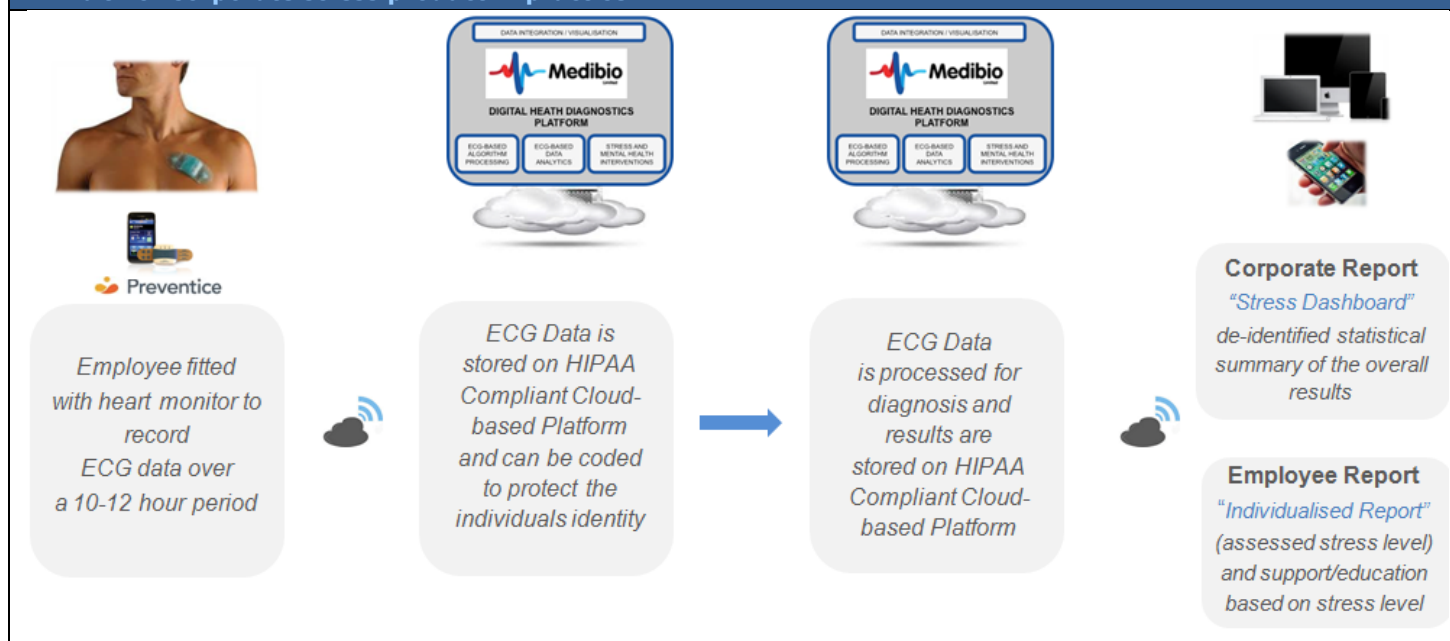
Exhibit 9: Practical application of Medibio's CHR technology in medical segment



2. **Corporate:** Under this category, Medibio plans to establish its CHR-V technology as a wellness product that will provide a stress score to corporate employees. Employees will be classified into one of three distinct categories based on their stress score: 'green' - normal to mild (no immediate action needed); 'amber' - moderate (the impact of stress on wellbeing is approaching unhealthy levels); and 'red' - severe (stress may affect individual's well-being); recommend lifestyle changes based on results. The Company's internal validation testing assessed the subject over 80% of the times into one of these categories. This compares favorably to the diagnostic accuracy of 40-60% of self-reported questionnaires for assessing stress level. The Company aims to partner with various medical care delivery organizations to offer its stress level assessment services. Key clientele for the Company in corporate includes high risk occupations such as defense, fire/emergency services, insurance companies, corporate wellness, professionals and elite sports. The

Company expects to launch the services by second half of FY 2016 as no FDA approval is required for that. Medibio has set a target of annual revenue of U\$100 MM within next five years.

Exhibit 10: Corporate stress product in practice



- Consumer:** Medibio has also developed "mybettermind" application, which can be installed on Android and iOS based mobile phones and will source the heart rate data from wearable devices like Apple Watch, Sony Smart Watch and LG G Watch. According to the Company's estimate, the consumer stress market is valued at over U\$ 26 BN. The management believes its app has edge over its competitors as mybettermind will be the first health sector endorsed app, certified by the studies conducted by JHU and BDI. All currently available apps are digitized version of the DSM and focus on reducing tension via breathing, yoga and relaxing sounds. Medibio plans to launch this app by the end of CY 2015.

2.1.3.1 Business Model^{xix}

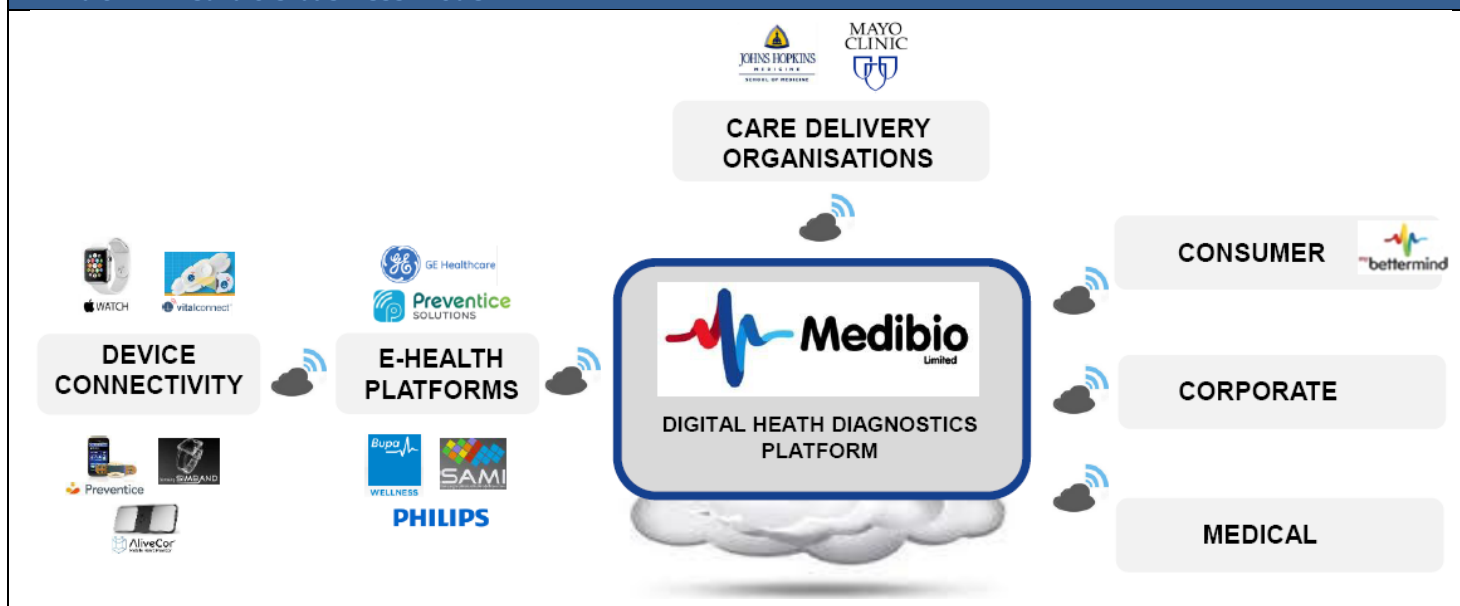
Medibio plans to be a cloud based data analytics firm and partner with medical care organizations for the required hardware equipments. This will allow it to focus on its core competency of algorithm development and differentiate its offering from others. For clinical segment of customers such as PCP and psychiatrists, the Company expects to receive a medical reimbursement of A\$ 45 per test for the computer generated clinical report from the insurance companies. However, currently the insurance companies are not reimbursing expenses on depression diagnostic test and the management intends to enter the market only after the insurance providers start reimbursing the same. In corporate segment, the Company may offer the test at a significantly lower price compared to the medical segment. We have assumed a the wellness program where all the enrolled employees will undergo 12 tests per annum at a charge of A\$ 2 per test. Based on the results, the subjects will be provided further consultation at a cost of A\$ 25 and monitoring, if required, for a charge of A\$ 6 per test for six tests during the year. For consumer app, Medibio plans to charge between A\$ 5 – A\$ 10 as initial download charge for the first year and an annual subscription charge of between A\$10 - A\$15, during subsequent years.

Being a cloud based service provider, Medibio's operating costs are expected to remain minimal. The Company is currently hosting and running its algorithms and database on Amazon Web Services (AWS), which are Health Insurance Portability and Accountability Act (HIPAA) compliant. Depending on scale of operations, the variable cost related to processing CHR data through its algorithm may fall less than 1 cent per share and the cost of storing a complete ECG file on AWS will be less than 1.5 cents per year. These two costs will constitute the firm's cost of sales. In addition, the physical monitoring of the patient in case of medical and corporate clients will require additional expenses on ECG monitor, costing about A\$ 300 per device and other disposables costing less than A\$ 1 per test. These costs are expected to be borne by the testing labs in case of medical market and by the corporate client or the medical delivery organization in case of corporate clients, depending on the contract between the companies.

As a market entry strategy, Medibio has planned to partner with various cardiac monitoring equipment manufacturers and remote cardiac monitoring companies. As a first step, the Company has partnered with Preventice Solutions and is also in discussion with several other medical care delivery organizations in the US and Australia for medical and corporate markets. This will enable Medibio to leverage their existing network of clients and sales teams. Subsequently, for medical market only, based on profitability and cash position, the Company plans to enter into Canadian market 12 months after its launch in the US and into European markets 24 months after launching its product in Canada. In consumer market, the Company strategy is to leverage the existing and upcoming wearable devices owned by consumers to obtain the heart rate data, which will be transmitted over the mobile network to the Company's servers. However, in case these wearable devices do not provide ECG quality heart rate data, Medibio may consider launching its own wearable monitoring device, which are expected to cost between A\$ 10 – A\$ 15.

We are optimistic about Medibio's business model and market entry strategy as this will significantly lower its capital expenditure requirements and commercial launch costs, while reaching a wider market in a relatively short period of time.

Exhibit 11: Medibio's business model^{xx}



2.2 Company Premiums^{xxi}

- **To be the first FDA approved technology for quantitative diagnosis of depression:** Medibio's CHR-V technology has the potential to become the first FDA approved, evidence based depression diagnosis methodology in the market globally. Currently, all existing and under-development diagnostic tools for depression are at best intended to be used to support the medical practitioner in his/her diagnosis based on DSM standards. Several medical associations have also been calling for evidence based quantitative method for diagnosing depression, which offers a readily available market for the Company's products.
- **Large market potential:** There are over 350 MM depression patient worldwide, with the total cost of mental illness believed to be about U\$ 2.5 TN. The total prevalence rate is at about 10% globally and only half of them receive treatment for the same. The Company's technology is expected to be the first in the market and so, will not have any directly competing products. Moreover, based on our projections, a reimbursement of A\$ 45 per computer generated test report by the insurance companies will offer revenue potential of U\$ 30 BN for Medibio.
- **Limited regulatory requirement in corporate and consumer segments:** In corporate and consumer segments, Medibio plans to position its offerings as corporate wellness product and personal health monitor respectively. These are categorized as non-clinical products, which just offer services to assess stress level of the subject and recommend a visit to PCP or some yoga exercises to deal with unfavorable results.
- **Low cost operating structure:** Medibio hosts and processes its algorithm and CHR data on HIPAA compliant AWS. We believe this helps the Company maintain a lean structure with minimal operating costs. It also negates the requirement for large expenditure on establishing and running company-owned web servers, and instead will allows Medibio to focus on its core competency of algorithmic research. Moreover, the Company has planned to

partner existing medical care delivery organizations to offer its services, which will enable it to leverage their existing client network and sales channels. Resultantly, based on Medibio's business plan, we expect it to start generating profit from the first year of operations in 2017.

- **Potential of CHR-V technology for diagnosis of other mental illnesses:** Initially, Medibio's focus is solely on getting its technology approved for depression diagnostic and monitoring. Preliminary research shows that it can be further expanded to diagnose and monitor the effectiveness of treatment of other mental illnesses. Although we have not factored in the potential revenue from other mental illnesses, the Company has planned to formally commence trials and research for general anxiety disorder in June 2016 and then for panic disorder, mixed depression/anxiety disorders and schizophrenia. Apart from that, the Company will also be participating in a study investigating ECG traces in subjects with PTSD this year. This we believe provides Medibio a significant growth potential and an opportunity to capture even bigger share of mental illness market, which is expected to expand to U\$ 6.0 trillion by 2030.

2.3 Company Risks^{xxii}

- **Uncertainty surrounding reimbursement for mental health diagnostic:** Medibio's business plans are largely dependent on medical expense reimbursement by insurance companies. However, currently the insurance companies do not provide mental health diagnostic specific reimbursements. This presents considerable risk towards our financial forecasts as insurance coverage or reimbursement was rated as the most significant factor influencing clinicians' decision to use the device in the survey conducted by Ametus.
- **Threat of new evolving technologies:** Although currently there are no direct competitors for the Company but few technologies in the under-development phase have the potential to be used for depression diagnostics. For instance, quantitative electroencephalography. This can present significant competitive pressure in the future and adversely impact Medibio's financial projections.

2.4 Medibio's Shareholding Pattern

Medibio's total ordinary shares are 90.5 MM, with the following shareholding pattern.

Exhibit 12: Shareholding pattern ^{xxiii}		Exhibit 13: Shareholding Pattern ^{xxiv}		
	Dr Stephen Robert Desmond Addis	Shareholders	No. of Shares	% of total
	Mr Claude Solitario	Dr Stephen Robert Desmond Addis	12,318,736	13.61%
	ABN Amro Clearing Sydney Nominees Pty Ltd	Mr Claude Solitario	12,318,735	13.61%
	Carakho Holdings Pty Ltd	ABN Amro Clearing Sydney Nominees Pty Ltd	8,256,909	9.12%
	Moneybung Pty Ltd	Carakho Holdings Pty Ltd	4,000,000	4.42%
	Others	Moneybung Pty Ltd	3,060,000	3.38%
		Others		
		Total	90,491,260	100%

2.5 Listing and Contact Details

The ordinary shares of Medibio Ltd. are listed on ASX (Ticker: ASX: MEB, Date of Listing – January 29, 2001)

Contacts: Suite 605, Level 6 50 Clarence Street, Sydney, NSW 2000

E-mail ID: kris.knauer@medibio.com.au

Phone: +61(0)2 9299 9580

3. Key Variable Analysis^{xxv}

3.1 Variable 1 – Revenue from medical segment

We expect revenue from the Company's medical customers to accrue from FY 2018. Initially the Company will launch its product in the US and Australian markets followed by Canada in FY 2019 and Europe in FY 2021. We have assumed depression prevalence rate of 9% for the US, 8% for Europe and 5% for Australia and Canada, with each patient undergoing five tests during the treatment. Also, we expect the Company to charge A\$ 45 per test in the USA and A\$ 30 in Australia, Canada and Europe. We have not factored in the revenue potential from ROW as it is largely dependent on the acceptance of the Company's products in other markets. Considering that Medibio will be able to successfully market its product, Arrowhead estimates that the Company will be able to capture a market share of about 6.5%-10.0% by 2025 across different regions. Based on our assumptions, the estimated revenue generated would be as follows,

Exhibit 14: Risk-adjusted revenue from medical segment										
A\$ 'mn	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Low estimate	21.7	39.0	56.2	84.9	106.7	124.3	142.0	159.8	155.1	150.4
High estimate	39.0	60.2	80.9	132.2	158.3	179.5	200.8	222.3	218.6	214.9

3.2 Variable 2 – Revenue from corporate segment

We expect Medibio to launch its product for corporate customers in Australia and New Zealand by 2H FY 2016. Considering the lack of resources, the company is expected to enter the US market only by FY 2017. We expect between 2.40%-5.50% of the total workforce working in various regions to avail the Company's stress monitoring services. We expect 100% of the workforce to enroll for regular testing program. Under this program the company will charge A\$ 2 per test for 12 tests per annum. We expect 50% of such employees to be recommended for medical consultation for which the Company will charge A\$ 25. Further, 12.5% of such subjects are expected to be enrolled for in-depth regular monitoring, for which we expect the Company will charge A\$ 6 per test for six test per annum. Based on these assumptions, we forecast Medibio's revenue generated from corporate customers to be as follows,

Exhibit 15: Risk-adjusted revenue from corporate segment										
A\$ 'mm	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Low estimate	1.2	10.6	17.1	24.0	30.7	36.9	43.2	49.6	56.1	62.7
High estimate	3.7	30.2	46.9	64.8	81.9	90.8	100.1	109.2	118.8	128.4

3.3 Variable 3 – Revenue from consumer App

Medibio is expected to launch its consumer app "mybettermind" for Android and iOS based devices by the end of CY 2015 globally. We expect 10% of the smartphone users to buy wearable devices and monitor their health. Also, we expect the Company to capture market share of 3.70%-4.65% by 2025. Further, applying an annual subscription charge of A\$ 10- 12, the estimated revenue generated would be as follows,

Exhibit 16: Risk-adjusted revenue from consumer application										
A\$'mm	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Low estimate	2.2	11.9	23.0	34.9	47.7	61.2	75.2	89.4	103.8	118.0
High estimate	3.9	18.6	35.3	53.2	72.4	92.6	113.6	135.1	156.7	178.0

4. News^{xxvi}

- **Medibio lodges provisional patent application covering its test to measure stress level:** On July 02, 2015, Medibio Ltd. announced that it has filed with the US patent office a provisional application titled "Method and System for Monitoring Stress Conditions". The application covers its objective test to measure the level of stress and its impact on health and wellbeing. It measures the type and degree of deviation of the subject's CHR from normal and uses the diagnostic significance of this to classify individual into one of three categories based on

the impact of stress on their health. The Company intends to eventually seek patent protection in major countries, including Australia, the UK, EU, Japan, China and Russia.

- **Medibio enters into MoU with Preventice Solutions:** On May 28, 2015, Medibio Ltd. entered into a memorandum of understanding (MoU) with Preventice Solutions (Preventice Inc.). It has two subsidiaries: eCardio Diagnostics, which provides remote cardiac monitoring products and services; and Preventice, offering software solutions for remote patient care and developer of the PatientCare Platform and the BodyGuard remote monitoring sensor. Preventice Solution's health data platform can be leveraged for the commercial delivery of Medibio's CHR tests to assist clinicians with various mental illnesses. Additionally, Medibio may also utilize Preventice's sales and distribution channels to serve its clients.
- **Medibio raises A\$ 2.6 million:** On April 7, 2015, the Company finalized a capital raising of A\$ 2.6 million via issue of 8.7 million placement shares at A\$ 0.30 per share. Medibio also converted Series A and Series B convertible notes into fully paid ordinary shares plus attaching options.
- **Medibio completes acquisition of Invatec:** Medibio completed the acquisition of Invatec on April 2, 2015 and issued 25.3 million fully paid ordinary shares to vendor shareholders of the Company.
- **Medibio completes share consolidation:** On March 20, 2015, Medibio Ltd. completed the 1-for-100 share consolidation program. As a result of share consolidation, the capital raising, the issue of shares and options and the acquisition of Invatec, the Company has changed from 3.5 billion shares and various convertible notes, pre-consolidation, to 89.8 million fully paid ordinary shares and 21.5 million options post-consolidation.
- **Commercialization study confirms U\$ 2.3 billion revenue opportunity:** Medibio Ltd. released details of a commercialization study on its CHR technology for the US market conducted by The Ametus Group. The key take away from the study include, reimbursement by insurance companies is key factor that will drive the demand for the Company's technology, with a 5% market share within 5 years would give the Company revenue of U\$ 100 MM and no competing FDA approved evidence-based product to assist clinicians.

5. Management and Governance^{xxvii}

The management team includes experienced professionals, who have held positions of responsibility across various firms.

Exhibit 17: Management and Governance			
Name	Position	Past Experience	Qualifications
Chris Indermaur	Chairman of the Board of Directors	<ul style="list-style-type: none"> • He is currently Chairman of Poseidon Nickel Ltd. and Non-Executive Director of Aerison Pty Ltd. • Earlier, he was a Non-Executive Director of the Prime Health Group • He has also held the role of General Manager of Strategy and Development at Alinta Ltd. • He has over 30 years of experience in large Australian companies in engineering, business development and commercial roles 	<ul style="list-style-type: none"> • B.E. (Mechanical) and a Graduate Diploma of Engineering (Chemical) from Curtin University • LLB and LLM from the Queensland University of Technology
Kris Knauer	CEO and Executive Director	<ul style="list-style-type: none"> • He is currently the Chairman of Esperance Minerals Ltd., Non-Executive Chairman of Astro Resources NL, • He is a former director of Citadel Resource Group Ltd. 	<ul style="list-style-type: none"> • B. Sc. (Honours) in Geology
Dr Matt Mesnik	CMO	<ul style="list-style-type: none"> • He is the Chief Medical Officer of QuickCheck Health Inc. and is also serving as the Medical Director at Ativa Medical • He was Chief Medical Officer of MinuteClinic • He has also served as the urgent care medical director for Aspen Medical Group. • He co-founded Express HealthCare and is the founding partner of LTOT Solutions 	<ul style="list-style-type: none"> • NA
Dr Michael Player	COO	<ul style="list-style-type: none"> • He is currently working as a Research Psychologist at the Black Dog Institute and does active patient work as a Clinical Psychologist 	<ul style="list-style-type: none"> • PhD in investigating and quantifying objective, biological markers of depression at the University of New South Wales
Robert Lees	CFO and Co. Secretary	<ul style="list-style-type: none"> • He is the CFO and Company Secretary of Medibio since September 2012 • He is also serving as Company Secretary at five ASX and one NSX listed company • Has worked as a professional Company Secretary for over 15 years • He served as Company Secretary for Citadel Resource Group Ltd. from November 2003 to February 2009 and Norton Gold Fields Ltd. from December 2004 to February 2007 	<ul style="list-style-type: none"> • Member of the Institute of Chartered Accountants in Australia and Chartered Secretaries of Australia • Bachelor of Business (Accounting) and a Graduate Diploma in Data Processing from the University of Technology Sydney • Graduate Diploma in Corporate Governance
Stephen Pearce	Chairman – Advisory Board	<ul style="list-style-type: none"> • He serves as Chairman of Surtron Technologies Pty Ltd. • He is the CFO of Fortescue Metals Group since March 2010 • He is also Non-Executive Chairman of the Lion's Eye Institute • He has served as Managing Director of Southern Cross Electrical Engineering Ltd. • He was also the CFO of WestNet Infrastructure Group Ltd. 	<ul style="list-style-type: none"> • CA and Chartered Secretary • Bachelor of Business (Accounting) from the Royal Melbourne Institute of Tech. • Graduate Diploma in Company Secretarial Practice

6. Markets and Competition

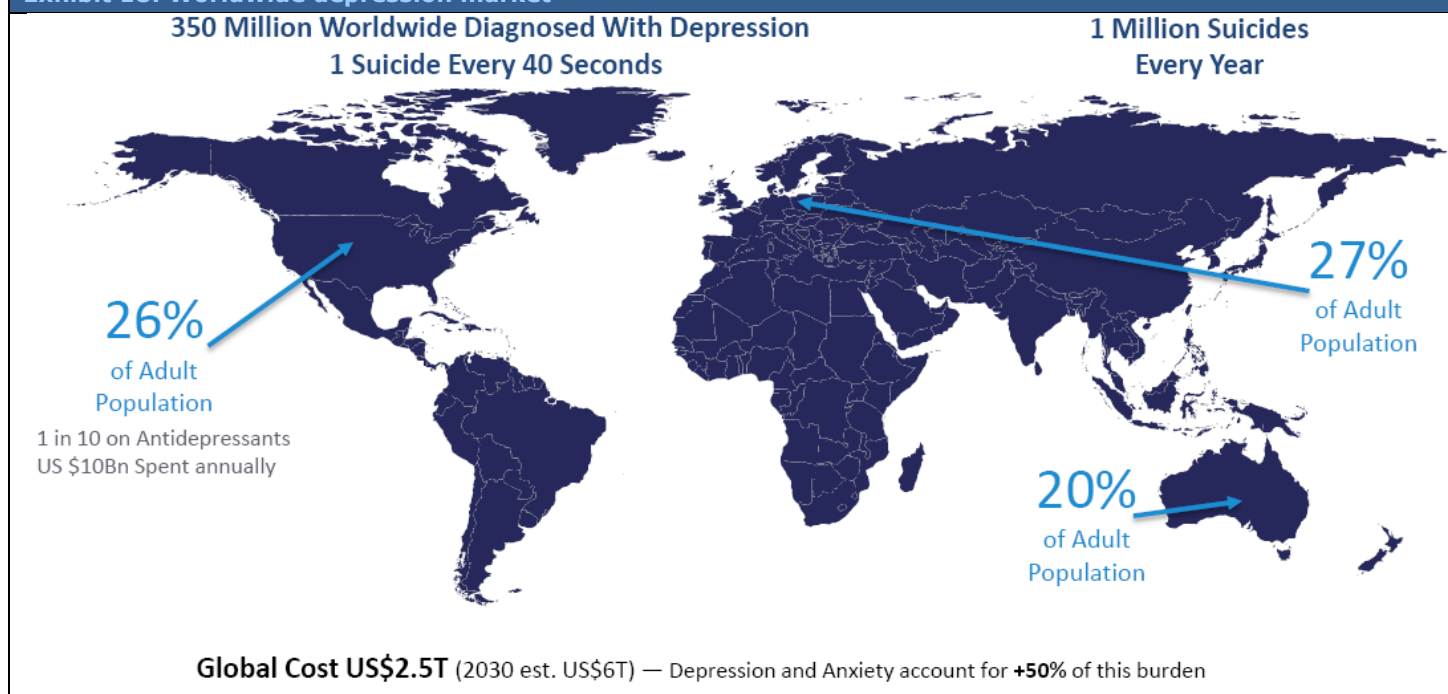
6.1 Industry Overview^{xxviii}

6.1.1 Depression and stress

According to WHO, there are more than 350 MM people of all ages who are suffering from depression across the world. It is estimated that women are two to three times more likely to suffer from depression than men. Prevalence rate for depression is 10%, while according to the WHO less than half of them receive treatment for the same. By 2020, depression is expected to be the second leading cause of world disability and expected to be the largest contributor to disease burden by 2030. Depression also leads to an estimated one million suicides every year, with about 20 times more unsuccessful suicide attempts. However, less than 10% of the people affected by depression receive treatment for the same due to factors such as inadequate knowledge and social stigma.

Moreover, according to US census, in a 3-month period, patients with depression miss an average of 4.8 workdays and suffer 11.5 days of reduced productivity. Workplace stress is estimated to cause 19% of absenteeism. According to a study by Workplace Health Association, Australia, 65% of employees reported moderate to high stress levels and 41% had psychological stress levels considered to be at risk. In the US, about 90% of corporate with 200 or more employees offer corporate wellness programs. Corporate spend between U\$ 100- U\$ 500 per employee per annum on corporate wellness programs, valuing the overall wellness market in the US at U\$ 8.2 BN annually. This provides a significantly large market potential for depression diagnostics and monitoring globally. DSM-5 guides the current diagnosis and treatment recommendation for depression. The current standards for diagnosis and treatment are primarily based on personal interaction of the patient with the medical practitioner. The doctor may also get the patient tested for other diseases to eliminate other possible physical reasons for depression. This creates a lot of ambiguity. The Institute of Mental Health has also said that it is seeking a quantitative method for diagnosing depression. However, currently no reliable FDA approved quantitative, evidence-based test for mental illnesses exist.

Exhibit 18: Worldwide depression market



6.1.2 Competition

This is an evolving industry, with new research currently being conducted to develop a quantitative method for diagnosing depression. Few of the prominent under research methodologies, which can compete with Medibio's CHR-V technology, are:

1. **Electroencephalography (EEG)^{xxix}:** Various studies have shown that EEG data can be used to distinguish between a normal and a depressed individual. Quantitative EEG (QEEG) is the statistical analysis of the electrical activity of the brain or brain waves. It is a brain mapping tool used to evaluate differences in brain function

compared to a database of people without difficulties. During the procedure, electrodes are pasted on the scalp, which captures the electrical impulses and presents them in the form of a graph. The test analyses various brain waves and brief responses to stimuli like light. Beta waves in the brain are usually associated with anxiety, depression or the use of sedatives. Few of the current research in this field to diagnose depression include analyzing sleep EEG, which provides biomarkers of depression and spectral asymmetry (SA) analysis of the EEG spectrum estimated as relative difference in the selected higher and lower EEG frequency band power.

2. **Blood based diagnostic tests^{xxx}**: Several blood based depression diagnostic tests have also been developed and marketed but none of them have been approved by FDA. One of such test is "MDDScore", a blood test that looks at a combination of biochemical from four different biological pathways in the body. It then uses a mathematical equation to obtain a single test score representing the likelihood of a person being affected by depression. An MDDScore of 1 to 4 suggests a low probability of having depression; 5, a moderate probability; 6 to 9, a high probability. "VeriPsych" is the first blood-based diagnostic test to confirm the presence of recent-onset schizophrenia. It is an automated test that uses a single serum sample to identify 51 protein biomarkers to ascertain whether a person has schizophrenia. Apart from these, several other institutions are conducting research to develop a method for diagnosing depression based on evaluating an individual's endocrine system. However, none of them are approved by FDA or are able to differentiate between depression and other mental illnesses or ascertain the effectiveness of treatment being administered.
3. **Inner ear test (Vertigo)^{xxxi}**: The Swinburne University in Australia has developed an inner ear test that claims to be able to distinguish between depression and bipolar. This is based on the fact that vertigo is generally associated with anxiety and depression.
4. Apart from the mentioned methods, there are several other questionnaires based tests like Beck Depression Inventory. These tests seek to assign a quantifiable value to the person's state of mind based on their responses to various multiple choice questions. Also, environmental approach (occurrence of demanding events) and psychological approach (individual's perception of stressful factors) are applied to determine the stress levels. Few other biomarkers used to identify stress levels include salivary cortisol, pressure pain sensitivity and galvanic skin response. However, these are impacted by the events immediately preceding the tests, which can distort the observations.
5. In consumer app market, most of the applications offer generalized guidelines to improve mental health and reduce stress by suggesting various breathing exercises, yoga and meditation techniques and playing various relaxing music or sounds. However, there are several apps such as Stress Check, Instant Heart Rate and Cardio, which offer real-time heart rate monitoring and stress based scores

However, none of these tests are approved by FDA and contrary to Medibio's CHR-V technology, most of these tests fail to conclusively differentiate between various forms of mental illnesses and can at best be used to support the diagnosis of a medical practitioner. These tests are also relatively more expensive and less effective than the Company's technology. These are also difficult to perform and lead to an uneasy experience for the patient.

6.1.3 Regulation^{xxxii}

We believe the research conducted by JHU and BDI, with support from regulatory consultancy firm NAMAS, will lead to Medibio's mental illness technology getting the required regulatory approvals. The Company will be required to file for denovo 510(K) clearance, along with a one-time fee of US\$ 5,018 with FDA before marketing their technology. This is also known as Premarket Notification. All companies who want to market their medical technology in the US - a Class I, II, and III device intended for human use - for which a premarket approval (PMA) is not required, must submit a 510(K). Before commercially marketing a device, the applicant is required to obtain FDA's approval letter stating that the device is substantially equivalent and that the device can be marketed in the US. This approval is granted only if the premarket submission made by the applicant demonstrates that the device to be marketed is at least as safe and effective, that is, substantially equivalent, to an existing legally marketed device that is not subject to PMA. FDA processes this application in generally 90 days based on the information provided by the submitter. After receiving this approval, Medibio will be required to register its company with annual fees (US\$ 3,646 for 2015), if not already done, and the device on FDA's website.

Ametus in its commercialization study noted that FDA granted de novo clearance of first brain wave testing diagnostic device for ADHD developed by NEBA Health in 2013. FDA had created new category of medical device called Neuropsychiatric Interpretive Electroencephalograph Assessment Aids (NIEA's) when approving NEBA's technology. The devices registered under this category are expected to deal with software analysis of EEG signals. The medical devices registered in this category have been classified as class II or moderate risk devices. This category of devices has relatively greater regulatory controls compared to class I devices to provide reasonable assurance of the device's

safety and effectiveness. This is a positive regulatory development as it demonstrates that the FDA recognizes the need to approve novel diagnostic technologies in the mental health space.

Exhibit 19 shows key facts about other biotechnology companies offering diagnostic services for various diseases,

Exhibit 19: Biotechnology companies offering diagnostic services for various diseases ^{xxxiii}				
Company	Business offerings	Country	Found	Market Cap (U\$ MM)
Medfield Diagnostics AB	Microwave technology in stroke diagnostics, breast cancer and temperature measurement	Sweden	2005	28.0
Genera Biosystems Ltd	Molecular diagnostic testing products with a focus on women's health	Australia	2002	23.8
SQI Diagnostics Inc	Laboratory-based biomarker testing	Canada	2003	19.0
EBM Technologies Inc	Medical information management systems and web-based technologies to deliver customizable diagnostic tools	Taiwan	1988	22.3
Mgc Diagnostics Corp	Cardiorespiratory diagnostic systems and related software	United States	1987	21.5
Interleukin Genetics Inc	Genetic tests for chronic diseases of aging, weight management test, bone health genetics test, heart health genetics health, nutritional needs genetics test and wellness select genetic test	United States	2000	22.1
PHSC Plc	Occupational health and safety consulting services	Britain	2000	5.5
Tyrian Diagnostic	Discovers biomarkers of disease and develops diagnostic kits	Australia	2000	0.8

Exhibit 20 shows key facts about other biotechnology companies offering treatment or developing drugs for treatment of various mental diseases,

Exhibit 20: Biotechnology companies offering treatment of developing drugs for mental illnesses ^{xxxiv}				
Company	Business offerings	Country	Found	Market Cap (U\$ MM)
Alkermes Plc	Treatments for central nervous system (CNS) disorders such as addiction, depression and schizophrenia; and diabetes	Ireland	2011	10,141.2
Neurocrine Biosc	Developing therapeutic interventions for anxiety, depression, Alzheimer's disease, insomnia, stroke, malignant brain tumors, multiple sclerosis, obesity and diabetes	USA	1996	3,951.9
Trevena Inc	Developing agents which target G-protein coupled receptors and therapies and drugs that treat acute heart failure, acute chronic pain, and depression	USA	2007	280.8
Tonix Pharmaceuticals Holding Corp	Drugs for treatment of conditions affecting the CNS, PTSD, and alcohol abuse and dependence and for prevention from small pox and radiation injury	USA	2007	138.6
Athersys Inc	Treating inflammatory and immune disorders, neurological conditions, cardiovascular disease, obesity, acute respiratory distress syndrome, ischemic stroke, acute and myocardial infarction	USA	2005	101.4
Addex Therapeutics Ltd	Drug to treat Parkinson's disease, levodopa-induced dyskinesia, schizophrenia, anxiety, overreactive bladder, Alzheimer, depression and reproductive system disorder	Switzerland	2007	39.5

Circadian Technologies Ltd	Research for cancer research, metabolic diseases and brain behavior research	Australia	2000	20.7
Medlab Clinical Ltd	Drugs for obesity, chronic kidney disease, depression, muscular loss associated with ageing, muscular-skeletal health and non-opioid pain management	Australia	2014	23.2
Vistagen Therapeutics Inc	Developing drugs for depression, other diseases and disorders related to the CNS, cancer and major depressive disorder	USA	2005	19.9
Neurotrope Inc	Developing drug for the treatment of Alzheimer's disease	USA	2011	17.0
Cogstate Ltd	Diagnostic and therapeutic products associated with neurological disorders and the measurement of cognitive functions.	Australia	1999	19.0
Capnia Inc	Therapeutic and diagnostic products for allergic rhinitis and product for detection of hemolysis	USA	1999	13.0
Neurosearch AS	Treatment for diseases of the CNS such as Huntington's disease, attention deficit disorder, schizophrenia, dyskinesias, cognitive dysfunctions, depression and anxiety, and social anxiety disorder	Denmark	1988	11.5
D Pharm Ltd	Treatment of CNS conditions, degenerative and age-related disorders, thrombolysis, epilepsy, migraine and manic depression, and acute pancreatitis	Israel	1993	5.4
Neurologix Inc	Gene transfer therapies for the treatment for brain disorders and CNS diseases. Its programs address conditions such as Parkinson's disease, epilepsy, depression and Huntington's disease.	USA	2000	0.0

7. Valuation

The Fair Market Value for all of the Company shares stands between A\$ 195.4 MM and A\$ 338.8 MM as of August 13, 2015. The Fair Market Value for one Company publicly traded shares stands between A\$ 2.16 and A\$ 3.74 as of August 13, 2015. The primary valuation approach followed is the Discounted Cash Flow method.

7.1 Discounted Cash Flow Method

Valuation

WACC

Risk-free rate	2.32% ^{xxxv}
Beta	1.60 ^{xxxvi}
Market premium	9.6% ^{xxxvii}
Additional Risk Premium	4.0%
Cost of Equity	20.37%
Cost of Debt	4.0%
Terminal Growth Rate	1.0%
WACC (Discount Rate)	20.37%

Figures are in MM A\$, unless indicated otherwise

KEY VARIABLES

Forecast for market size	Cost of diagnosis
Refer to Key Variables Analysis section	

Year Ending – June	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E
FCFE (High)*									
Net cash from operating activities	(1)	3	22	55	60	80	107	129	151
Capital Expenditure	-	(2)	(10)	(10)	(11)	(11)	(11)	(11)	(12)
Net Finance Income	0	0	0	0	1	1	1	2	2
Free Cash Flow to Firm	(1)	1	12	45	50	71	97	120	142
Discount factor	0.83	0.69	0.57	0.48	0.40	0.33	0.27	0.23	0.19
Present Value of FCF	(1)	1	7	22	20	23	27	27	27
FCFE (Low)*									
Net cash from operating activities	(1)	1	11	29	34	48	64	81	97
Capital Expenditure	-	(2)	(10)	(10)	(11)	(11)	(11)	(11)	(12)
Net Finance Income	0	0	0	0	0	0	1	1	1
Free Cash Flow to Firm	(1)	(1)	1	19	24	38	54	70	87
Discount factor	0.83	0.69	0.57	0.48	0.40	0.33	0.27	0.23	0.19
Present Value of FCF	(1)	(0)	0	9	10	12	15	16	16

* In the model, the valuation is continued to the year 2035, from which point the terminal value is established. For all data refer to the Appendix section 8.

Arrowhead Fair Value Bracket	High	Low
Terminal Value (TV)	864.6	547.2
Present Value of TV	30.7	19.5
Present value of FCFE	308.0	176.0
Equity Value Bracket	338.8	195.4
Shares O/s (000's)	90.5	90.5
Fair Share Value Bracket (A\$)	3.74	2.16
Current Market Price (A\$)	0.43	0.43
Current Market Cap. (A\$ MM)	38.9	38.9
Target Market Cap. Bracket (A\$ MM)	338.8	195.4

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Approach for DCF Valuation

Time Horizon: The Arrowhead fair valuation for Medibio is based on a DCF method. The time period chosen for the valuation is 180 months (2015E-2035E).

Terminal Value: Terminal value is estimated to depend on a terminal growth rate of 1.0%, representing an increase in the sale of Medibio for mental health disorder diagnostic and monitoring services.

Prudential nature of valuation: It should be noted that this Arrowhead Fair Value Bracket estimate is a relatively prudential estimate, as it discounts the eventuality of any new products being launched in the market or any significant change in the strategy.

Key variables: The upper and lower bounds in the estimation correspond to the extreme positions taken by the following key variables:

Exhibit 20: Medibio's market share estimate – medical segment										
%	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Low est.										
USA	2.0%	3.50%	5.00%	6.00%	6.75%	7.50%	8.25%	9.00%	8.65%	8.30%
Australia and New Zealand	2.0%	3.50%	5.00%	6.00%	6.75%	7.50%	8.25%	9.00%	8.65%	8.30%
Canada	-	3.00%	4.50%	6.00%	6.75%	7.50%	8.25%	9.00%	8.65%	8.30%
Europe	-	-	-	2.00%	3.50%	4.50%	5.50%	6.50%	6.35%	6.20%
High est.										
USA	3.0%	4.50%	6.00%	6.75%	7.50%	8.25%	9.00%	9.75%	9.50%	9.25%
Australia and New Zealand	3.0%	4.50%	6.00%	6.75%	7.50%	8.25%	9.00%	9.75%	9.50%	9.25%
Canada	-	4.00%	5.50%	6.25%	7.00%	7.75%	8.50%	9.25%	9.00%	8.75%
Europe	-	-	-	4.00%	5.50%	6.50%	7.50%	8.50%	8.40%	8.30%

Exhibit 21: Medibio's market share estimate – corporate segment										
%	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Low est.										
USA	-	0.3%	0.50%	0.70%	0.90%	1.10%	1.30%	1.50%	1.70%	1.90%
Australia and New Zealand	0.6%	1.10%	1.60%	2.10%	2.60%	2.80%	3.00%	3.20%	3.40%	3.60%
High est.										
USA	-	0.8%	1.30%	1.80%	2.30%	2.55%	2.80%	3.05%	3.30%	3.55%
Australia and New Zealand	1.5%	2.00%	2.50%	3.00%	3.50%	3.75%	4.00%	4.25%	4.50%	4.75%

Exhibit 22: Medibio's market share estimate – consumer app										
%	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Low	0.10%	0.50%	0.90%	1.30%	1.70%	2.10%	2.50%	2.90%	3.30%	3.70%
High	0.15%	0.65%	1.15%	1.65%	2.15%	2.65%	3.15%	3.65%	4.15%	4.65%

Important information on Arrowhead methodology

The principles of the valuation methodology employed by Arrowhead BID are variable to a certain extent depending on the subsectors in which the research is conducted, but all Arrowhead valuation research possesses an underlying set of common principles and a generally common quantitative process.

With Arrowhead Commercial and Technical Due Diligence, Arrowhead extensively researches the fundamentals, assets and liabilities of a Company, and builds solid estimates for revenue and expenditure over a coherently determined forecast period.

Elements of past performance, such as price/earnings ratios, indicated as applicable, are present mainly for reference purposes. Still, elements of real-world past performance enter the valuation through their impact on the commercial and technical due diligence.

Elements of comparison, such as multiple analyses may be to some limited extent integrated in the valuation on a project-by-project or asset-by-asset basis. In the case of this Medibio report, there are no multiple analyses integrated in the valuation.

Arrowhead BID Fair Market Value Bracket

The Arrowhead Fair Market Value is given as a bracket. This is based on quantitative key variable analysis, such as key price analysis for revenue and cost drivers or analysis and discounts on revenue estimates for projects, especially relevant to those projects estimated to provide revenue near the end of the chosen forecast period. Low and high estimates for key variables are produced as a tool for valuation. The high-bracket DCF valuation is derived from the high-bracket key variables, while the low-bracket DCF valuation is based on the low-bracket key variables.

In principle, an investor who is comfortable with the high-brackets of our key variable analysis will align with the high-bracket in the Arrowhead Fair Value Bracket, and likewise in terms of low estimates. The investor will also take into account the Company intangibles – as presented in the first few pages of this document in the analysis on strengths and weaknesses and other essential Company information. These intangibles serve as supplementary decision factors for adding or subtracting a premium in the investor's own analysis.

The bracket should be understood as a tool provided by Arrowhead BID for the reader of this report and the reader should not solely rely on this information to make his decision on any particular security. The reader must also understand that on one hand, global capital markets contain inefficiencies, especially in terms of information, and that on the other hand, corporations and their commercial and technical positions evolve rapidly: this present edition of the Arrowhead valuation is for a short to medium-term alignment analysis (one to twelve months). The reader should refer to important disclosures on page 29 of this report.

7.2 Discounted Price to Earning (P/E) method based on Peak Sales

We have also validated our valuation using discounted P/E method based on peak sales estimate in 2028. According to this method, the Fair Market Value of one Company publicly traded share stands between, A\$ 1.84 and A\$ 2.92 as on August 13, 2015. We are assuming a P/E multiple of 18.0x on our 2028 earnings per share estimate of A\$ 1.14 (Low bracket estimate) and A\$ 1.81 (High bracket estimate). We have discounted the same to 2015 using the firm's cost of equity of 20.4%.

Valuation – P/E based on Peak Sales		
Assumptions		
	Low	High
Current Year	2015	2015
Discount Rate	20.37%	20.37%
Target P/E Multiple in 2028	18.0	18.0
Earnings per share in 2028 (A\$)	1.14	1.81
Target price in 2028 (A\$)	20.43	32.52
1-yr Fwd. Target Price (A\$)	1.84	2.92

Sensitivity Table - High		Biotechnology Industry Multiple: PE (x)				
		16.00	17.00	18.00	19.00	20.00
Discount Rate (%)	18.4%	3.2	3.4	3.6	3.8	4.0
	19.4%	2.9	3.1	3.3	3.4	3.6
	20.4%	2.6	2.8	2.9	3.1	3.2
	21.4%	2.3	2.5	2.6	2.8	2.9
	22.4%	2.1	2.2	2.4	2.5	2.6

Sensitivity Table – Low		Biotechnology Industry Multiple: PE (x)				
		16.00	17.00	18.00	19.00	20.00
Discount Rate (%)	18.4%	2.0	2.2	2.3	2.4	2.5
	19.4%	1.8	1.9	2.0	2.2	2.3
	20.4%	1.6	1.7	1.8	1.9	2.0
	21.4%	1.5	1.6	1.6	1.7	1.8
	22.4%	1.3	1.4	1.5	1.6	1.6

Exhibit 23: Comparable analysis^{xxxix}			
Company	Market Cap (U\$ BN)	P/E (TTM)	1-yr Fwd. P/E
Gilead Sciences	170.6	12.1x	10.1x
Amgen Inc	129.4	20.7x	17.5x
Celgene Corp	103.6	47.4x	27.2x
Biogen Inc	74.5	21.6x	19.8x
Quintiles Trans	9.2	26.1x	23.8x
United Therapeut	7.5	50.9x	15.4x
Qiagen NV	6.4	42.2x	25.0x
Bio-techne Corp	4.0	35.9x	29.6x
Charles River La	3.6	24.9x	20.9x
Inc Research	2.5	29.6x	25.7x
Myriad Genetics	2.3	26.5x	19.8x
Emergent Biosolu	1.4	35.9x	24.3x
Luminex Corp	0.9	17.7x	27.6x
Affymetrix Inc	0.8	46.2x	26.3x
Enanta Pharma	0.8	11.5x	10.1x
Albany Molecular	0.8	91.4x	26.5x
Ani Pharma	0.6	18.1x	28.1x
Sum/Weighted Average	518.6	24.5x	17.8x

8. Appendix

8.1 Medibio's Balance Sheet Forecast

Exhibit 24: Consolidated Balance Sheet	All figures in MM A\$, unless stated differently <i>Low Bracket estimates</i>									
Year Ending June	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E
Total current assets	1.3	0.8	4.5	28.1	54.6	71.3	97.3	131.4	164.7	194.4
Total non-current assets	0.3	2.1	10.9	19.0	26.2	32.6	38.2	42.9	46.8	49.7
TOTAL ASSETS	1.7	2.9	15.4	47.0	80.8	104.0	135.5	174.4	211.5	244.1
Total current liabilities	-	-	-	-	-	-	-	-	-	-
Total non-current liabilities	-	-	-	-	-	-	-	-	-	-
TOTAL LIABILITIES	-	-	-	-	-	-	-	-	-	-
Total shareholder's equity	1.7	2.9	15.4	47.0	80.8	104.0	135.5	174.4	211.5	244.1
TOTAL LIABILITIES & EQUITY	1.7	2.9	15.4	47.0	80.8	104.0	135.5	174.4	211.5	244.1

Exhibit 25: Consolidated Balance Sheet		All figures in MM A\$, unless stated differently <i>Low Bracket estimates</i>									
Year Ending June	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	2035E
Total current assets	217.3	229.0	241.6	255.2	269.8	285.4	301.7	318.4	335.6	353.2	371.3
Total non-current assets	51.8	52.8	53.0	52.1	50.2	47.3	43.3	38.2	31.9	24.6	16.0
TOTAL ASSETS	269.1	281.8	294.6	307.3	320.0	332.7	344.9	356.6	367.5	377.8	387.3
Total current liabilities	-	-	-	-	-	-	-	-	-	-	-
Total non-current liabilities	-	-	-	-	-	-	-	-	-	-	-
TOTAL LIABILITIES	-	-	-	-	-	-	-	-	-	-	-
Total shareholder's equity	269.1	281.8	294.6	307.3	320.0	332.7	344.9	356.6	367.5	377.8	387.3
TOTAL LIABILITIES & EQUITY	269.1	281.8	294.6	307.3	320.0	332.7	344.9	356.6	367.5	377.8	387.3

Exhibit 26: Consolidated Balance Sheet

All figures in MM A\$, unless stated differently

High Bracket estimates

Year Ending June	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E
Total current assets	1.3	2.7	19.0	71.4	125.5	159.5	208.2	267.6	323.4	371.7
Total non-current assets	0.3	2.1	10.9	19.0	26.2	32.6	38.2	42.9	46.8	49.7
TOTAL ASSETS	1.7	4.9	29.9	90.4	151.7	192.1	246.4	310.5	370.1	421.4
Total current liabilities	-	-	-	-	-	-	-	-	-	-
Total non-current liabilities	-	-	-	-	-	-	-	-	-	-
TOTAL LIABILITIES	-	-	-	-	-	-	-	-	-	-
Total shareholder's equity	1.7	4.9	29.9	90.4	151.7	192.1	246.4	310.5	370.1	421.4
TOTAL LIABILITIES & EQUITY	1.7	4.9	29.9	90.4	151.7	192.1	246.4	310.5	370.1	421.4

Exhibit 27: Consolidated Balance Sheet

All figures in MM A\$, unless stated differently

High Bracket estimates

Year Ending June	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	2035E
Total current assets	408.4	427.2	447.2	468.3	490.6	514.1	537.8	561.7	585.6	609.7	633.8
Total non-current assets	51.8	52.8	53.0	52.1	50.2	47.3	43.3	38.2	31.9	24.6	16.0
TOTAL ASSETS	460.1	480.0	500.1	520.4	540.8	561.4	581.1	599.8	617.6	634.3	649.8
Total current liabilities	-	-	-	-	-	-	-	-	-	-	-
Total non-current liabilities	-	-	-	-	-	-	-	-	-	-	-
TOTAL LIABILITIES	-	-	-	-	-	-	-	-	-	-	-
Total shareholder's equity	460.1	480.0	500.1	520.4	540.8	561.4	581.1	599.8	617.6	634.3	649.8
TOTAL LIABILITIES & EQUITY	460.1	480.0	500.1	520.4	540.8	561.4	581.1	599.8	617.6	634.3	649.8

FCFE Calculation (2024E-2035E) – Continued from page 21

Exhibit 28: Year Ending - June	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
FCFF (High)*									
Net cash from operating activities	174	197	205	208	211	214	216	211	203
Capital expenditure	(12)	(12)	(12)	(13)	(13)	(13)	(14)	(14)	(14)
Net finance income	3	3	4	4	4	4	4	5	5
Free cash flow to Firm	165	188	196	199	202	204	207	202	194
Discount factor	0.16	0.13	0.11	0.09	0.07	0.06	0.05	0.04	0.04
Present value of FCF	26	25	21	18	15	13	11	9	7
FCFF (Low)*									
Net cash from operating activities	114	131	136	137	138	139	140	138	134
Capital expenditure	(12)	(12)	(12)	(13)	(13)	(13)	(14)	(14)	(14)
Net debt addition	1	2	2	2	2	2	2	3	3
Free cash flow to Firm	103	121	126	127	127	128	129	127	122
Discount factor	0.16	0.13	0.11	0.09	0.07	0.06	0.05	0.04	0.04
Present value of FCF	16	16	14	11	10	8	7	5	4

Exhibit 29: Year Ending - June	2033E	2034E	2035E
FCFF (High)*			
Net cash from operating activities	195	185	176
Capital expenditure	(15)	(15)	(16)
Net finance income	5	5	6
Free cash flow to Firm	185	176	166
Discount factor	0.03	0.02	0.02
Present value of FCF	5	4	3
FCFF (Low)*			
Net cash from operating activities	129	123	117
Capital expenditure	(15)	(15)	(16)
Net debt addition	3	3	3
Free cash flow to Firm	117	111	105
Discount factor	0.03	0.02	0.02
Present value of FCF	3	3	2

9. Analyst Certifications

I, Abhishek Bansal, certify that all of the views expressed in this research report accurately reflect my personal views about the subject security and the subject Company, based on the collection and analysis of public information and public Company disclosures.

Important disclosures

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Investors are advised to gather and consult multiple sources of information while preparing their investment decisions. Recipients of this report are strongly advised to read the Information on Arrowhead Methodology section of this report to understand if and how the Arrowhead Due Diligence and Arrowhead Fair Value Bracket integrate alongside the rest of their stream of information and within their decision making process.

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10. Notes and References

- i Source : Bloomberg, retrieved on August 13, 2015
- ii 52 weeks to August 13, 2015. Source: Bloomberg, August 13, 2015
- iii 3 months August 13, 2015. Source: Bloomberg, August 13, 2015
- iv Arrowhead Business and Investment Decisions Fair Value Bracket – AFVBTM. See information on valuation on pages 21 - 25 of this report and important disclosures on page 29 of this report.
- v Source: WHO – Depression Factsheet. <http://www.who.int/mediacentre/factsheets/fs369/en/>
- vi Source: WHO Report – Depression a global crises October 2012.
- vii Source : Medibio – FY 2014 Annual Report, company website, press releases and Bloomberg
- viii Source: Medibio medical presentation – June 2015
- ix Source: American Psychiatry Association and Medibio press releases
- x Source: Medibio investor presentations and press releases
- xi Source : Medibio investor presentations
- xii Source : Medibio medical presentation – June 2015
- xiii Source : Medibio medical presentation – June 2015
- xiv Source : Medibio medical presentation – June 2015
- xv Source : Medibio medical presentation – June 2015
- xvi Source : Medibio medical presentation – June 2015
- xvii Source : Medibio medical presentation – June 2015
- xviii Source: Medibio investor presentations
- xix Source: Based on discussion with the Company management and Arrowhead BID estimate
- xx Source : Company presentations
- xxi Source: Arrowhead BID analysis
- xxii Source: Arrowhead BID analysis
- xxiii Source : Based on data provided by management
- xxiv Source : Medibio – Company management
- xxv Source : Arrowhead BID estimate
- xxvi Source : Medibio press releases
- xxvii Source: Company website and Bloomberg

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- xxviii Source : WHO
- xxix Source: http://www.hopkinsmedicine.org/healthlibrary/test_procedures/neurological/electroencephalogram_eeg_92.P07655/
- xxx Source: <http://www.ridgedx.com/consumer.php>, <http://www.livescience.com/35051-blood-test-possibly-detects-schizophrenia.html>
- xxxi Source: <http://www.dizziness-and-balance.com/disorders/psych/psych.htm>
- xxxii Source: <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/Overview/>
- xxxiii Source: Bloomberg and Reuters
- xxxiv Source: Bloomberg and Reuters
- xxxv Source : Bloomberg, retrieved on August 10, 2015
- xxxvi Source : Arrowhead BID estimate
- xxxvii Source : Bloomberg
- xxxviii Source : Medibio investor presentation – July 2015
- xxxix Source: Bloomberg, retrieved on August 13, 2015