# **ASX Market Update**

Medibio Limited

Medibio Limited (ASX: MEB)

# Medibio lodges provisional patent covering stress breakthrough.

**Sydney, Australia – 2 July 2015:** Medibio Limited (**MEB** or the **Company**) is pleased to announce that it has lodged with the US Patent office a provisional patent application covering its objective test to measure the level of stress and its impact on health and wellbeing. This will complement the existing patents covering mental health diagnosis held by Medibio .

The provisional application titled "Method and System for Monitoring Stress Conditions", has been filed in the US under provisional application serial no. 62/175,826. The company intends to eventually seek patent protection in major jurisdictions including, but not limited to, Australia, the USA, the UK, EU, Japan, China, and Russia.

The lodgment of this new patent is the first in Medibio's IP strategy of creating and protecting a dominant, and defensible position, in the use of Circadian Heart Rate (CHR) technology in the areas of stress and mental health.

The current patent application specifically covers the use of CHR technology to assess the level and impact of stress. More specifically, it measures the type and degree of deviation of the subject's CHR from normal and uses the diagnostic significance of this to accurately classify individuals into one of three categories based on the impact stress has had on their health and wellbeing. The company is also advancing new patent applications covering new understanding obtained over the past 18 months specifically related to mental health diagnosis.

In commenting on the provisional application Kris Knauer the CEO of Medibio said: "This patent is an important step in our IP Strategy. The Company has disruptive technology related to the diagnosis of mental health disorders and the assessment of stress and we need to put as much exclusivity around this key asset as possible."

## **About Stress**

Chronic stress is one of the largest issues in healthcare today. It is well recognised that stress is one of the primary precursors to mental illness. Additionally, the physical problems related to chronic stress include the impairment of the immune response, increased blood pressure, and chronic muscle tension. These problems can eventually lead to serious life-threatening illnesses and studies have found that individuals who have undergone significant stress have a much higher probability of developing serious illnesses such as heart attacks, kidney disease, and cancer, than non-stressed individuals.

Recent research undertaken by the Workplace Health Association Australia indicated that 65% of Australian employees reported moderate to high stress levels, and 41% had psychological distress levels considered to be at-risk <sup>(3)</sup>. Various US studies of the economic impact of stress variously estimate the cost of stress to US employers between US\$200 billion to US\$300 billion annually.<sup>(2)</sup>

### **About Medibio's Stress test**

The stress test is based on a series of new algorithms which have been developed to measure the type and degree of deviation of the subject's CHR from normal and the diagnostic significance of this deviation. Medibio's new algorithms accurately classify individuals into one of three categories based on the impact stress has had on their health and wellbeing.

1. **normal to mild:** where no immediate action needed

2. **moderate:** the impact of stress is approaching unhealthy levels

3. severe: stress has had an unhealthy impact and lifestyle changes are recommended

Internal validation testing returned excellent results with sensitivities and specificities in excess of 80% for correctly assessing the subject into one of these three categories.

#### **Commercial Potential**

There is currently no gold standard for the measurement of stress and no available test to objectively assess the impact of stress on health and wellbeing. The ability to accurately assess the impact of stress via a simple test has the potential to save the workplace and the healthcare system globally billions of dollars. Workplace stress costs Australian employers an estimated \$10.1 billion annually <sup>(1)</sup>.

The benefits to Medibio in successfully commercialising a test for stress and the potential markets for the test are significant. The company will focus initially on the workplace stress market following fruitful discussions with potential corporate customers both in Australia and internationally. The corporate health market has the potential to generate significant revenues for the company.

Workplace stress is estimated to cause 19% of absenteeism which has been estimated to cost a typical major enterprise \$3.5 million annually. This impact of stress is recognised by employers, particularly in the US, where 90% of corporates with 200 or more employees now offer Corporate Wellness programs. With an annual wellness program spend of US\$100-500 per employee the overall size of the workplace wellness market in the US is estimated at US \$8.2 billion annually <sup>(2)</sup>.

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<sup>(1)</sup> Medibank Private - The Cost of Workplace Stress in Australia August 2008

<sup>&</sup>lt;sup>(2)</sup> A Review of the U.S. Workplace Wellness Market, by Soeren Mattke, Christopher Schnyer, Kristin R. Van Busum

<sup>(3)</sup> Health Profile of Australian Employees, 2015, University of Wollongong and Workplace Health Association Australia.