

ASX Announcement



Medibio Limited – 20 June 2019

Medibio Algorithm Validated in Study Published in Peer Reviewed Journal

Highlights:

- This study demonstrates that changes in heart rate across sleep-wake states may be valid physiological markers for the identification of depression in a sample of people with sleep complaints.
- The heart rate profiling algorithm classified individuals with an accuracy of 79.9%.
- In comparison, the detection rate of depression amongst primary care practitioners is thought to be approximately 47%.
- Medibio intends to leverage this algorithm in early detection and screening for depression.

Melbourne, Australia and Minneapolis, MN – 20 June 2019: Medibio Limited (MEB or the Company)(ASX: MEB)(OTCQB: MDBIF), a health technology company is pleased to announce that a clinical research article by Saad et al titled “Using heart rate profiles during sleep as a biomarker of depression” has been published by *BMC Psychiatry*, an open access, peer-reviewed journal that considers articles on all aspects of the prevention, diagnosis and management of psychiatric disorders.

The lead author of the article is Maysa Saad of the department of cellular and molecular medicine at the University of Ottawa, Ontario, Canada, and the Royal Institute of Mental Health Research. Dr. Rébecca Robillard participated in study design, reviewed and classified all diagnostic information, among other contributions to the study. Robillard directs clinical sleep research at The Royal Ottawa Institute of Mental Health Research (IMHR), affiliated with the University of Ottawa and co-directs the Sleep Laboratory of the School of Psychology at the University of Ottawa, where she is also an Assistant Professor.

“These findings unveil a promising new avenue to continue investigating for depression biomarkers. The fact that heart rate patterns during sleep can be used to differentiate people with and without depression with such accuracy also highlights the extent of cardiovascular abnormalities linked to depression,” said Dr. Robillard. “This stresses the need for further research to better understand the possible interactions between depression, sleep and cardiovascular health.”

The article states, “This study demonstrates, for the first time, that changes in heart rate across sleep-wake states may be valid physiological markers for the identification of depression in a sample of people with sleep complaints. The heart rate profiling algorithm classified individuals with an accuracy of 79.9%. Specifically, the algorithm was able to detect 82.8% of the depression cases and rule out 77.0% of healthy controls (these results are in line with the preliminary analyses conducted for CE marking). In comparison, the detection rate of depression amongst primary care practitioners is thought to be approximately 47%.” (Saad et al., 2019).

“We are excited to see this study and article published by globally renowned sleep and mental health specialists,” said Dave Kaysen, Chairman, Managing Director and CEO of Medibio. “The study is based on one of Medibio’s legacy algorithms, the foundation for the next-generation of technology supporting our upcoming De Novo submission.”

A link to the publication is available [here](#) through the BMC Psychiatry open access.

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About Medibio Limited

Medibio (ASX: MEB) (OTCQB: MDBIF) is a health technology company pioneering the use of objective measures to aid in the early detection and screening of mental health conditions. Through their Corporate Health product, the Company offers mental well-being solutions for businesses and are also developing products to serve the healthcare provider market. The company was founded in Australia, with offices located in Melbourne (Vic) and U.S. offices in Minneapolis, MN. Medibio is listed on the Australian Securities Exchange Ltd and trades on the OTCQB Venture Market. Investors can find additional information on www.otcmarkets.com and www.asx.com.au.

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