

ASX Release

***SLEEP*® journal paper shows Oventus ExVent™ and OnePAP™ valves used in combination with mandibular advancement splints like O₂Vent® reduce sleep apnoea for a substantial proportion of patients**

Brisbane, Australia 13 June 2019: Oventus Medical Ltd (ASX: OVN) is pleased to advise that a peer-reviewed paper on Oventus' clinical data has been published in the scientific journal, *SLEEP*® this week. The paper demonstrates how Oventus' O₂Vent® mandibular advancement splint (MAS), used in combination with valves such as the ExVent™* and O₂Vent® OnePAP™*, reduces the severity of Obstructive Sleep Apnoea (OSA) to therapeutic levels for a substantial proportion of incomplete/non-responder patients, compared to MAS therapy alone.

SLEEP® is a monthly, peer-reviewed scientific and medical journal that is published online. *SLEEP*® publishes a wide spectrum of original basic, translational and clinical sleep/circadian research findings. The primary audiences are research and clinical professionals specialising in sleep and circadian science and medicine.

CEO of Oventus, Dr Chris Hart commented, "Publication of this positive data in a journal like *SLEEP*® is a key part of our strategy to educate sleep clinicians on the benefits of our new sleep treatment platform. This paper confirms an extraordinary increase in efficacy for this non-invasive treatment option for obstructive sleep apnoea. It shows that Oventus O₂Vent® devices which incorporate our unique airway, when paired with our ExVent™ or O₂Vent® OnePAP™ valves, can treat a substantial proportion of patients who had previously not responded to treatment. This is good news, as many patients like the idea of using mouthguard-style oral devices for sleep apnoea treatment, but receive little therapeutic improvement from standard devices, while others like the idea of oral EPAP, but experience similarly poor outcomes. By pairing the two approaches together with our patented O₂Vent® airway, we've demonstrated a therapeutically superior result which was well tolerated by patients during the trial."

The publication of this research has coincided with the 2019 American Academy of Dental Sleep and Sleep Medicine meetings, in San Antonio, Texas.

"There has been a phenomenal response to these findings from sleep clinicians during these meetings, as it highlights a new treatment option with increased efficacy and higher compliance rates, that will in turn have a higher impact on OSA treatment outcomes," said Dr Hart. "Additionally, we are delighted for Professor Danny Eckert, the principal investigator on this study, who has just received the prestigious Pierre Robin Academic Award for exhibiting exceptional initiative and results in the areas of education and research, with original contributions to the field of dental sleep medicine."

The paper, entitled: *Combination therapy with mandibular advancement and expiratory positive airway pressure valves reduces obstructive sleep apnea severity* was a product of the Company's Australian Federal Government-funded "NeuRA study". It was co-authored by Victor Lai, Benjamin K Tong, Carolin Tran, Andrea Ricciardiello, Michelle Donegan, Nicholas P Murray, Jayne C Carberry and Danny J Eckert.

A copy of the paper is available via <https://investors.o2vent.com/investors-2/news>.

*The ExVent™ and O₂Vent® OnePAP™ products are not yet in-market.

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For further information, please visit our website at www.o2vent.com or contact the individuals outlined below.

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About Oventus

Oventus is a Brisbane based medical device company that is commercialising a unique treatment platform for the treatment of sleep apnoea and snoring. Unlike other oral appliances or CPAP interfaces, the Oventus devices have a unique and patented airway within the treatment platform that allows air to flow to the back of the mouth unobstructed while maintaining an oral seal and stable jaw position, bypassing multiple obstructions from the nose, soft palate and tongue. The devices reduce airway collapsibility and manage mouth breathing while maintaining a stable airway with or without nasal CPAP. They are particularly designed for the many people that have nasal obstructions and consequently tend to mainly breathe through their mouth. While it may seem counterintuitive, this technology actually manages mouth breathing by converting it to device breathing and normalising ventilation. The O₂Vent® is designed to allow nasal breathing when the nose is unobstructed, but when obstruction is present, breathing is supplemented via the airways in the appliance.

According to a report published by the Sleep Health Foundation Australia, an estimated 1.5 million Australians suffer with sleep disorders and more than half of these suffer with obstructive sleep apnoea.¹

Continuous positive airway pressure (CPAP) is the most definitive medical therapy for obstructive sleep apnoea, however many patients have difficulty tolerating CPAP². Oral appliances have emerged as an alternative to CPAP for obstructive sleep apnoea treatment.³

¹ Deloitte Access Economics. *Reawakening Australia: the economic cost of sleep disorders in Australia, 2010*. Canberra, Australia.

² Beecroft, et al. Oral continuous positive airway pressure for sleep apnea; effectiveness, patient preference, and adherence. *Chest* 124:2200–2208, 2003

³ Sutherland et al. Oral appliance treatment for obstructive sleep apnea: An updated *Journal of Clinical Sleep Medicine*. February 2014.

+ About the NeuRA study and the \$2.95m Australian Federal Government-funded CRC-P project: Targeted therapy for sleep apnoea: A novel personalised approach

The NeuRA study is being conducted as part of the \$2.95m Australian Federal Government-funded Cooperative Research Centres Programme (CRC-P) project, entitled, "Targeted therapy for sleep apnoea: A novel personalised approach". The project aims to improve the efficacy, compliance and monitoring of sleep apnoea therapy using a tailored suite of treatments to suit the needs of the individual patient.

The range of therapies to be used, singularly or in combination, include oral appliances (with mandibular advancement and an airway) - with or without a positive airway pressure machine (with reduced pressure and air flow), supplemental oxygen delivery and/or a sleep consolidation aid. Oventus Medical is the lead participant together with Medical Monitoring Solutions Pty Ltd, Neuroscience Research Australia (NeuRA), Western Sydney University (WSU) and the CSIRO.