

Company Announcement

Wednesday 14 November 2018

Compumedics Partners with Diabetes Australia & Deakin University to Tackle Australia's Sleep & Diabetes Epidemic

Highlights:

- **Deakin University, Compumedics and Diabetes Australia have been** awarded a prestigious grant from the Acceleration Fund of the Victorian Department of Health and Human Services to help deliver clinical-grade, consumer-accessible blood-glucose and sleep monitoring as part of Compumedics' unique Somfit Health Management Platform
- **Somfit Health Management Platform** is the first of its kind to enable a patient-central point of care for continuous blood-glucose (HbA1c) measurements coupled with a PSG-based, single, wearable, sensor with mobile sleep-management capabilities
- **Diabetes Australia (DA)** is the third-longest established diabetes association in the world. About 1.7 million Australians are estimated to have diabetes, including 1.2 million with an established diagnosis. The total cost of diabetes in Australia is estimated at \$14.6 billion
- Compumedics is a world-leading leading sleep and neuro-diagnostic supplier of medical systems based in Victoria, Australia, having generated over \$500 million of medical equipment export sales including 20,000 systems installed world-wide. Compumedics' clients include Albert Einstein Brain Centre, Mayo, Stanford, Tokyo University, Beijing University, the Vatican and two NASA missions (Shuttle and Space Station)
- **Compumedics** won the contract for the prestigious US National Institute of Health (NIH) funded Sleep Heart Health Study (SHHS), the largest sleep study of its kind, against 23 global competitors, to equip the 14,000 patient-study. The SHHS famously established the links between cardiovascular and sleep disorders
- The global economic costs of type 2 diabetes are set to almost double from \$31.2 billion in 2015 to \$58.7 billion by 2025
- In China alone, Compumedics has over 2000 systems installed at more than 333 universities and 600 hospitals, including seven out of the top ten hospitals
- **Diabetes** remains one of China's major health burdens, impacting about 11% of adults and costing about 10% of China's health budget. This impacts more than 110 million people today and estimates are that it will affect more than 150 million people by 2040
- **Deakin Rural Health** is a research and training-focused group at Deakin University's School of Medicine. A key aim of Deakin Rural Health (DRH) is to improve access for rural and



remote communities to appropriate health services, through provision of appropriate support for education and training of health professionals in rural and remote areas, and by undertaking research relevant to the needs of rural and remote communities. DRH researchers have played prominent roles with several key studies in the field of diabetes screening and prevention

Compumedics Limited (Compumedics), **Diabetes Australia (DA)** and **Deakin Rural Health (DRH)** are pleased to announce that they have been awarded a competitive Victorian Government grant to tackle the major risks associated with problem sleep and diabetes.

The **Somfit Sleep Diabetes Health Study (SSDHS)** will involve the deployment of the world-first consumer-level, clinical-assessment Somfit platform, designed to incorporate a community-wide, continuous blood-glucose and consumer-level polysomnography (PSG) sleep assessment.

Previous studies estimate that between 50% and 90% of people with diabetes have obstructive sleep apnoea, and 77% have insomnia. Insulin resistance, or the ability for the body to generate insulin naturally, has been shown to be adversely impacted by poor sleep quality while meta-analysis suggests that poor sleep health is associated with significantly increased HbA1c (biomarker of diabetes control).

Somfit is the world's first wearable device that meets international clinical standards to assess sleep health. Developed by Compumedics, the Somfit technology enables affordable and consumer-level access to improved quality sleep healthcare, whilst supplementing existent sleep care services and other health carers. With Somfit technology patients will, for the first time, be able to monitor their sleep health in a clinically meaningful way and on an ongoing basis. This opens up the opportunity to provide access to effective community-based care for more patients.

The SSDHS will develop and test the efficacy of the Somfit platform's technology-enabled sleep health intervention for people with diabetes, thereby establishing a feasible sleep health intervention for primary care. The study will also test the intervention effects on key health and wellbeing outcomes for patients with diabetes and whether there is a reduced diabetes risk in those patients with pre-diabetes.

Dr David Burton, Chairman and CEO of Compumedics, said:

"This project brings together the best-of-class consumer electronics, proven and professional grade Cloud analytics and, most importantly, some of the region's most distinguished researchers, to tackle sleep and diabetes risk, one of our greatest health problems.

"Deakin Rural Health is well-versed in bringing valuable and meaningful health solutions to rural communities. Diabetes Australia is the third longest established diabetes association in the world and has over one million registered diabetics in Australia alone."

Dr Kevin Mc Namara, Deputy Director, Research of Deakin Rural Health, said:

"This proposal supports the translation of cutting-edge diagnostic research into clinical care.



"If our hypothesis that improved sleep management will slow diabetes progression is correct, it may lead to reduced rates of diabetes complications and hospitalisations, and reduced healthcare costs. Potential benefits include health and wellbeing outcomes, especially given that sleep quality is a pillar of health that has been overlooked and which increasingly appears linked to blood glucose control in diabetes.

"Effective population-level interventions are paramount to reducing the impact of the diabetes epidemic and Somfit improves healthcare access. This is potentially of particular benefit for communities with poor access to sleep healthcare, such as those patients from rural and remote areas, and those on low incomes."

Associate Professor Greg Johnson, CEO of Diabetes Australia, commented:

"Diabetes Australia is the national organisation for people affected by all types of diabetes, and those at risk, and is committed to reducing the impact of diabetes in the Australian community. We are a major supporter of diabetes-related research throughout Australia.

"Diabetes Australia has formed a partnership with Deakin University and Compumedics to explore the potential health outcomes and benefits of a novel sleep health intervention for people with diabetes.

"We believe that the impact of sleep on diabetes risk and management is an important area of research where there are large knowledge gaps and a great need for research to better inform clinicians and people affected by diabetes.

"As a respected and valued source of information for diabetes, we will work in collaboration with the researchers, to provide knowledge and expertise, assisting in understanding the research outcomes and translating them into consumer and health professional communications and integrating them into effective models of care.

"Diabetes Australia is well positioned and experienced in translating research knowledge and evidence into policy and practice and we will act on the findings of the project, to improve the quality of care and health outcomes for people living with diabetes. We have a range of measures at our disposal for promoting the findings of this work including consumer and clinical networks, partnerships, publications and conferences."

Professor Jon Watson, Dean of Deakin University School of Medicine, said:

"Promoting better healthcare in regional Victoria and regional Australia is one of four research pillars for the School of Medicine. As such, a project that explores the use of point of care technology, such as the Somfit device, to make diagnostic assessments more accessible, and which will develop a model of sleep care that is agnostic of setting thanks to the use of primary care and remote specialist care, fits perfectly with our priorities.

"There is increasing evidence that sleep quality may have a significant effect on diabetes control and outcomes, comparable to the impact of more traditional risk factors. Feasible and acceptable



service models will drive the commercial success and patient outcomes from Somfit, and our health services' researchers at DRH are best placed to support its development.

"We see this as an investment in the development of a long-term collaborative program of research for Deakin University, Diabetes Australia and Compumedics. The proposed project will act as catalyst to attract further funding."

About Diabetes Australia

Diabetes Australia is the national organisations for people affected by all types of diabetes and those at risk. We work in partnership with consumers, health professionals, researchers, the community and governments to reduce the impact of diabetes. There are currently an estimated 1.7 million Australians with diabetes, and over 2 million Australians have prediabetes and are at high risk of developing type 2 diabetes.

About Deakin University

Deakin University offers a personalised experience, enhanced by innovative digital engagement. Deakin is a dynamic and contemporary university with a reputation for being innovative, nimble and friendly. The University combines excellent research and outstanding teaching with a strong focus on the communities it serves.

With internationally recognised quality of research and teaching, Deakin ranks 211 in the prestigious Academic Ranking of World Universities (ARWU) putting Deakin in the top 2% of the world's universities. **

^{*}Quacquarelli Symonds (QS); QS Stars University Ratings

** Academic Ranking of World Universities, Times Higher Education, QS World University Rankings

About Compumedics Limited

Compumedics Limited [ASX: CMP] is a medical device company involved in the development, manufacture and commercialisation of diagnostics technology for the sleep, brain and ultrasonic blood-flow monitoring applications. The company owns US based Neuroscan and Germany based DWL Elektronishe GmbH. In conjunction with these two subsidiaries, Compumedics has a broad international reach, including the Americas, Australia and Asia Pacific, Europe and the Middle East.

Executive Chairman Dr David Burton founded Compumedics in 1987. In the same year the company successfully designed and installed the first Australian, fully computerised sleep clinic at Epworth Hospital in Melbourne. Following this early success, Compumedics focused on the development of products that sold into the growing international sleep clinic and home monitoring markets.

Compumedics listed on the Australian Securities Exchange in 2000. Over the years, Compumedics has received numerous awards, including Australia's Exporter of the Year, and has been recognised as a Top 100 Innovator by both German and Australian governments.

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