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Cortical Dynamics Ltd – Korean MedTech Innovation Showcase

Please find attached an update from BPH Energy Ltd (ASX: BPH) investee company Cortical Dynamics Ltd.

Yours sincerely,

Deborah Ambrosini
Company Secretary

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CORTICAL DYNAMICS INVITED TO ATTEND AUSTRADE KOREAN MEDTECH INNOVATION SHOWCASE

Cortical Dynamics Limited ("**Cortical**") is pleased to advise that it has been invited by the Australian Trade and Investment Commission ("Austrade") to attend and present at the Austrade Medtech Innovation Showcase 2016 to be held in Korea.

The Showcase will bring together Australia's key industry experts and innovative Medtech companies with senior executives from leading Korean pharma and medical device companies. Cortical Chairman, Mr David Breeze will be presenting Cortical and its next generation Brain Function Monitor.

Organised by Austrade, with the support of the Department of Foreign Affairs and Trade (DFAT) and the Korean Health Innovation Development Institute (KHIDI) the showcase will provide a platform for Australian medtech organisations to meet with Korean businesses that are interested in partnering with Australian technology and solutions providers.

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- Korea is Australia's third largest export market, ahead of India and the USA. It is also Australia's fourth largest two-way trading partner.
- The Korean government has recently launched the "Creative Economy" industry policy which is aimed at revitalising the Korean manufacturing sector, creating new markets and enabling industry convergence across advanced manufacturing and materials, biotech and healthcare sector.

The Korean biotech & healthcare industry enjoys strong government support. Opportunities for partnerships with Australian medtech and biotech companies are growing, building on the strong base of cooperation established by Australian and Korean biotech industries and the Korea Australia Free Trade Agreement

The Korean Ministry of Science, ICT and Future Planning has designated brain research as one of their five main fields to receive the greater part of the investments. In particular, development of technologies to meet social issues such as "brain mapping" and early diagnosis services for dementia patients & development of technologies (i.e. customised brain disease treatment, neuro-rehabilitating brain stimulation, optimized learning capability technology) for four major fields in brain research; brain disease, cranial nerve, brain and cognitive science, brain engineering. (Source: Biotechnology in Korea, Ministry of Science, ICT and Future Planning)

Yours sincerely,

David Breeze
Chairman
Cortical Dynamics Ltd

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About Cortical

Cortical is an Australian based medical device technology company that has developed a next generation Brain Function Monitor (BAR). The core-product the BAR monitor has been developed with the objective of better detecting the effect of anaesthetic agents on brain activity, aiding anaesthetists in keeping patients optimally anaesthetised.

The BAR monitor improves on currently used electroencephalogram (EEG) technologies by incorporating the latest advances in understanding of how the brain's rhythmic electrical activity, the EEG, is produced. The approach used is fundamentally different from all other devices currently available in the market in that its underlying algorithm produces EEG indexes which are directly related to the physiological state of the patient's brain.

The global brain monitoring market in 2012 was valued at $1.08 billion and is poised to grow at a CAGR of 8.6% to reach $1.63 billion by 2017. The global brain monitoring devices market is broadly segmented into three categories based on its product, application, and end-user. Fueling market growth is the various technological advancements which are leading to high functionality, lower costs, ease of operation, and miniaturization of devices. Initial marketing will focus on TIVA (Total Intravenous Anaesthesia), a method of inducing and maintaining general anaesthesia without the use of any inhalation agent. This is becoming more widely accepted, particularly in Western Europe.

Cortical's technology has a versatility that goes beyond depth of anaesthesia and may be applied to other EEG based markets, such as Neuro-diagnostic, drug discovery, drug evaluation and the emerging Brain Computer Interface (BCI) market.

There are considerable opportunities offered by subsequent expansion of the company's core technology through developing the product to carry out additional functions including neuro-diagnostics of changes in brain and memory functions to provide early warning of degenerative diseases, pain response and tranquiliser monitoring for trauma patients in intensive care units.

The BAR monitor is protected by five patent families in multiple jurisdictions worldwide consisting 22 granted patents.

About the BAR Monitor

The BAR monitoring system measures a patient's brain electrical activity, the electroencephalogram (EEG), in order to indicate how deeply anaesthetised a patient is during an operation via an adhesive sensor applied to the forehead. The BAR monitor is designed to assist anaesthetists and intensive care staff in ensuring patients do not wake unexpectedly, as well as reducing the incidence of side effects associated with the anaesthetic. Cortical believes that the BAR monitoring system will offer many significant sustainable competitive advantages to key stakeholders including the patients, the anaesthetists, and the hospitals/day clinics. These advantages may reduce the risks associated with surgical procedures, increase levels of patient care, optimize the use of anaesthetic agents, increase efficiencies and reduce costs through a reduction in drug usage and a faster bed turnaround in the theatre and post-operative recovery rooms around the globe.

The electrical activity recorded from the scalp, the EEG, is amongst the most important quantifiable measures of brain function. Unsurprisingly, EEG is used to monitor brain function in a variety of clinical situations such as neurological diagnosis, where the EEG is analysed for early signs of degenerative diseases, or within the operating room, where the EEG is used to indicate the depth of anaesthesia within the surgical patient.

Such monitoring is now gaining significant use during surgery, however even with the use of EEG monitors, it is not uncommon for there to be a critical imbalance between the patient's anaesthetic requirements and the anaesthetic drugs administered. While a number of EEG monitors are commercially available, one that is reliably able to quantify the patient's anaesthetic state is still desperately needed.

Prior to the development of the BAR monitor, all of the existing EEG based depth of anaesthesia monitors operate in the context of a number of well documented limitations:

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- Inability to monitor the analgesic effects; and
- Not all hypnotic agents are reliably measured.

The above limitations highlight the inadequacies in existing EEG based depth of anaesthesia monitors, particularly given surgical anaesthesia requires both hypnotic and analgesic agents.

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