



24 May 2013

Companies Announcement Office
ASX Limited
Exchange Centre
Level 4, 20 Bridge Street
Sydney, NSW 2000

Cortical Dynamics Ltd – Patent Update for BAR Monitoring System

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

Yours sincerely,

A handwritten signature in blue ink, appearing to read "D Ambrosini".

Deborah Ambrosini
Director and Company Secretary



24 May 2013

BPH Energy Limited
14 View Street
North Perth, WA 6006

Patent Update for BAR Monitoring System

Cortical Dynamics Ltd (“**Cortical**”) is pleased to provide the following patent update on its patent portfolio.

The Japanese Patent Office has granted two patents relating to the BAR monitoring system. These are Cortical’s second and third granted patents within Japan, a region that has been estimated to hold approximately 10% of the worldwide EEG/EMG/ brain function monitoring market. The two patents entitled, ‘Brain function monitoring and display system’ and ‘Method for displaying the activity of a brain and system for displaying the activity of a brain’ are valid until June 2027.

Cortical is also pleased to advise that the Australian application of the patent family, ‘Brain function monitoring and display system’, has been granted. The granted patent has an expiry date of June 2027.

Cortical has developed an extensive patent portfolio encapsulating the BAR monitoring system and its physiologically based algorithms, with a total of thirteen patents granted throughout Australia, New Zealand, the United States, Japan and the People’s Republic of China.

About the BAR Monitor

The Brain Anaesthesia Response (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.

The BAR monitor improves on currently used EEG monitors by utilising advances in understanding of how the brain’s electrical activity is produced, and how it is affected by anaesthetic and sedative drugs. The BAR’s unique physiological approach is aimed at independently monitoring the hypnotic and analgesic states associated with anaesthesia, a feature no known existing EEG based depth-of-anaesthesia monitor is able to achieve.

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Objectively monitoring of hypnotic and analgesic state may lead to improved anaesthetic and surgical outcomes, by reducing recovery times and minimising drug costs.

Cortical has recently completed its first human clinical trial using the BAR monitoring system which was conducted at St Vincent's Hospital, Melbourne. The findings of the St Vincent's trial were recently presented at the 2013 Annual Scientific Meeting of the Australian and New Zealand College of Anaesthetists.

This trial represents a significant event in the BAR monitors' development program as it is the first time the complete BAR monitoring system has been employed within the operating theatre.

About Cortical Dynamics

Cortical Dynamics Ltd is a medical technology company that was established in 2004 to commercialise intellectual property relating to brain function monitoring developed by Professor David Liley and his scientific team at Melbourne's Swinburne University of Technology.

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