



BioPharmica Limited

3 May, 2007

Biopharmica [ASX: BPH] ASX Release

Biopharmica's Cortical Anesthetic Monitoring Device to be Featured on ABC's "Catalyst" tonight, 3rd May, 2007

The Brain Anaesthesia Response (BAR) index monitoring system which is being developed by Biopharmica's investee, Cortical Dynamics, will be featured in the Catalyst program on the ABC today 3rd May, 2007 at 8.00pm.

The following is an excerpt from the ABC Catalyst Website

Stay Asleep – a new anaesthesia monitor

Imagine you're lying on an operating table undergoing surgery but before it's over, you wake up.

It's not a pleasant thought but it can happen.

Up to one in 1000 people become aware during surgery, and in rare cases up to 1 in 100. A few years ago, a new monitor was released that could decrease the incidence dramatically, but it did little for the 20 per cent of people who suffer serious nausea and vomiting after surgery.

Now a new Australian invention, based on some serious mathematical analysis of brain waves, looks set to not only stop people waking up during surgery, but may prevent the serious and, far more common, side effects of too much anaesthetic.

Reporter: Maryanne Demasi

Producer: Belinda Gibbon

Researcher: Ruth Beran

The program features an interview with inventor David Liley, who is an Associate Professor in Brain Dynamics in the Brain Sciences Institute at Swinburne University of Technology.

Cortical Dynamics Overview

Cortical Dynamics is working with Biopharmica Limited (ASX: BPH) and Swinburne University of Technology (SUT) to commercialise and develop the Brain Anaesthesia Response (BAR) index monitoring system. The BAR Monitor is designed to detect and record the electrical activity of the human brain in order to assist anaesthetists to keep patients optimally anaesthetised during surgery.

This brain activity monitor also has potential in neuro-diagnostic applications, including the detection of the early onset of neurodegenerative diseases such as Alzheimer's and Parkinson's, and in drug monitoring associated with these conditions.

Market

The depth of anaesthesia market is predicted to be worth US\$750 million by 2008.

Clinical Trials

A pilot trial at Royal Melbourne Hospital (RMH) tested the sensitivity of the BAR Monitor. The results of the 60-patient study indicated that the BAR index is superior in quantifying brain function compared to current approaches.

One critical discovery was that the BAR index could measure both brain state and input, something that other brain function monitors cannot do separately.

A second pilot trial at RMH, that utilises the BAR Monitor in patients given opioids as anaesthetic agents, is currently underway in order to extend the validation of the monitor. The National Health and Medical Research Council (NHMRC) in Australia will be supporting a sequence of trials that will take place during 2008 at various Australian hospitals.

Enquires regarding the BAR index monitoring system can be referred to the following:

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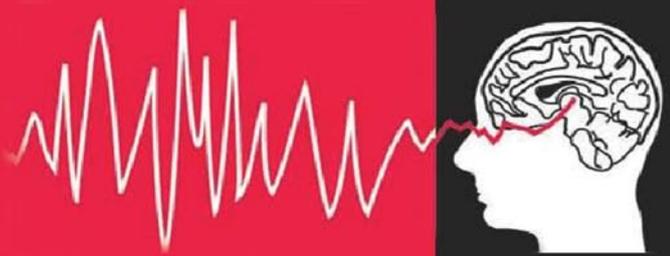
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Cortical Dynamics



Overview

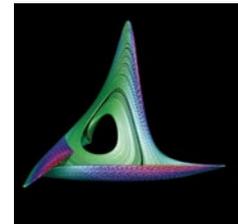
Cortical Dynamics is working with BioPharmica Limited [ASX:BPH] and Swinburne University of Technology (SUT) to commercialise and develop the Brain Anaesthesia Response (BAR) index monitoring system. The BAR Monitor is designed to detect and record the electrical activity of the human brain in order to assist anaesthetists to keep patients optimally anaesthetised during surgery.



This brain activity monitor also has potential in neuro-diagnostic applications, including the detection of the early onset of neurodegenerative diseases such as Alzheimer's and Parkinson's, and in drug monitoring associated with these conditions. International patent coverage is pending regarding the use of the BAR Monitor in a range of applications.

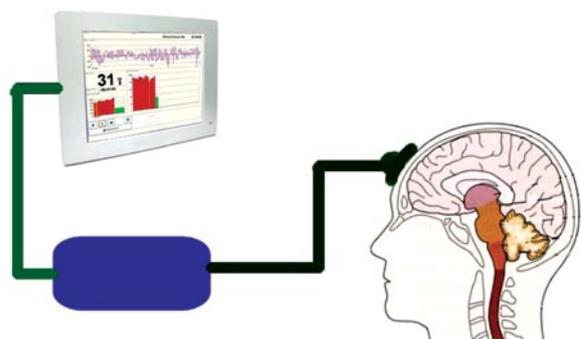
Market

The depth of anaesthesia market is predicted to be worth US\$750 million by 2008. There are eight products in the market and two companies whose focus is purely depth of anaesthesia monitoring. The benchmark monitor at present is BIS (the Bispectra Index at Aspect Medical Systems Inc). It has been shown in extensive clinical trials that improved monitoring of the depth of anaesthesia reduces recovery times, the costs of anaesthesia and the incidence of postoperative recall.



Technology and Competitive Advantage

Dr David Liley, Researcher and Senior Lecturer in Biophysics and Deputy Director of the Centre for Intelligent Systems and Complex Processes at SUT is the inventor of the technology. Dr Liley has designed a practical means to carry out a system-based analysis of brain electrical response. The BAR index or algorithm operates through detailed understanding of the physiological mechanisms that generate brain electrical activity (EEG). This scientific premise allows the BAR Monitor to be quicker, far more sensitive and accurate than current systems.





Clinical Trials

A pilot trial at Royal Melbourne Hospital (RMH) tested the sensitivity of the BAR Monitor in quantifying the effect that various levels of the anaesthetic agent nitrous oxide have on measures of anaesthetic depth. The results of the 60-patient study indicated that the BAR index is superior in quantifying brain function compared to current approaches. One critical discovery was that the BAR index could measure both brain state and input, something that other brain function monitors cannot do separately.

A second pilot trial at RMH, that utilises the BAR Monitor in patients given opioids as anaesthetic agents, is currently underway in order to extend the validation of the monitor. The National Health and Medical Research Council (NH&MRC) in Australia will be supporting a sequence of trials that will take place during 2008 at various Australian hospitals.

Opportunity

Cortical Dynamics is seeking companies and institutions interested in collaborations, co-development and licensing, particularly in:-

- Manufacturing and/or marketing of devices for surgical theatres;
- Conducting international clinical trials using Cortical's device; and
- Exploring the potential of adapting the current technology into the neurodiagnostic area (diagnostics of diseases such as Alzheimer's or for use in the testing of drugs for neurological disorders).

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**Swinburne
Knowledge**



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