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BioPharmica (ASX: BPH) ASX Announcement



CORTICAL DYNAMICS PROJECT UPDATE

Cortical Dynamics has received this week a comprehensive dataset from a European clinical research centre. This data is from a study which used the same design as our latest opioid trial and is now being analysed with the BAR analysis method. It is expected that this data sharing will lead to collaboration with a number of European centers of anesthetic monitoring excellence. Further validation of these results is expected to be completed in the fourth quarter of 2009.

The Cortical Dynamics team which is lead by Dr David Liley have completed two clinical trials at The Royal Melbourne Hospital. The results from the first trial have been published in the peer reviewed international journal *Computers in Biology and Medicine*. The trials proved scientific acceptance for the Brain Anaesthesia Response (BAR) analysis methodology and showed superiority over existing monitoring approaches.

The second trial was designed to evaluate the sensitivity of the BAR methodology to opioids and other intravenous anaesthetic drugs. This trial which studied 55 patients is complete and the results have been analysed. Both trials have confirmed that the BAR algorithm is more sensitive than competitive monitors in detecting the anaesthetic drug effect.

The Cortical Dynamics BAR analysis is based on the physiological mechanisms that generate brain electrical activity allowing the BAR Monitor to be faster, much more sensitive and accurate than existing monitors. Anaesthetists use a number of anaesthetic drugs which can be broadly grouped into inhalants or intravenous anaesthetics. The current program is to trial the BAR's sensitivity with the most commonly used anaesthetic drugs.

Investigation of the data over the last few months from both trials has highlighted a number of improvements for the BAR monitor. The sensor layout has been modified to increase the level of the brain electrical activity detected and the data acquisition module is being fine tuned to improve the BAR Monitors resilience to signal noise.

These improvements are designed to increase the quality of the collected data. Improving the input signals will further enhance the sensitivity of the BAR's ability to detect anaesthetic drug effects as well as increasing its robustness in dealing with an operating theatre and its electrical environment. The upgraded BAR Monitor is scheduled to be complete in the third quarter of 2009.

Cortical Dynamics patent portfolio is currently going through national phase in Australia, Europe, China, New Zealand and the US.

Yours sincerely,



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Chairman

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