



## *BioPharmica Limited*

### **BAR Monitor Validation Trials**

BioPharmica Ltd (ASX: BPH) Announcement – 30 September 2005

Leading specialists Dr David Liley and Associate Professor Kate Leslie have completed a trial at Royal Melbourne Hospital to test the sensitivity of a new method in quantifying the effect that various levels of nitrous oxide have on measures of anaesthetic depth.

The trial at Royal Melbourne Hospital involved sixty eight patients (eight more than originally planned) who consented to being involved in the study as part of their elective surgery. While being anaesthetised patients had the electrical activity of their brain recorded from a set of electrodes placed on the forehead.

The data from these recordings were analysed using sophisticated algorithms based on a biological understanding of the dynamics of human brain electrical activity discovered by Dr David Liley. The method is incorporated into the Brain Anaesthesia Response (BAR) monitor being developed by Cortical Dynamics and BioPharmica.

Follow up analysis and reporting of the Royal Melbourne Hospital trial data is being conducted and results will be released when the full review has been completed.

Further trials to extend the validation of the BAR Monitor are now being planned in a series of Australian hospitals. Discussions have also commenced with potential international collaborators.

Participants were randomly allocated to one of three groups in which they were anaesthetized with the common potent inhalational agent sevoflurane, carried in 0%, 33% or 66% nitrous oxide.

The BAR monitor is designed to detect and record the electrical activity of the human brain in order to assist anaesthetists and intensive care staff in keeping patients optimally sedated or anaesthetised.

International patent coverage is also pending regarding the use of the BAR system in a number of Neuro-diagnostic settings that include detecting the early onset of degenerative diseases like Alzheimer's or Parkinson's as well as being used in drug discovery and evaluation associated with these conditions.

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#### **About BioPharmica**

BioPharmica is working to commercialise a portfolio of research discovered by Australian universities, medical institutes and hospitals targeting large global markets. The Company has several projects currently undergoing pre-clinical development in Australian Hospitals and Universities.

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In conjunction with the University of Western Australia and the Western Australian Institute for Medical Research, the Company is working to commercialise a molecular marker for early and accurate cancer detection and treatment. The HLS5 marker is currently undergoing pre-clinical work at the Royal Perth Hospital campus of WAIMR.

In partnership with Cortical Dynamics Pty Ltd, the Company is commercialising the BAR Monitor, a device that measures a patient's brain electrical activity (EEG) to indicate the response to drugs administered during surgery. The BAR Monitor assists doctors to ensure patients do not wake up unexpectedly during an operation, and minimizes associated side effects from post-operative recall of surgical procedures. The BAR Monitor is currently undergoing validation trials with data from patients at Royal Melbourne Hospital.

Together with the Royal Melbourne Institute of Technology University and Diagnostic Array Systems, the Company is working to commercialise faster and more effective methods of detecting infectious diseases using the genetic structure (DNA) of bacteria. Founders Dr Benjamin Fry and Dr Viraj Nawagamuwa are both world leaders in the genetic structure of bacteria.

In conjunction with Swinburne University of Technology and Dr Paul Stoddart, BioPharmica is working to commercialise the SERS Probe, a fibre optic probe to be used in biosensors for diagnostic testing and drug development. The probe enables the microscopic tip of an optical fibre to be used in biosensors to detect and monitor biological and chemical targets.

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