



BioPharmica Limited

PRESS RELEASE

Australian Bacterial DNA Test Success

Perth, Australia, December 20 - BioPharmica Ltd (ASX: BPH) today announced that GP's may soon have access to a test developed in Australia that helps diagnose lung disease faster and more effectively.

Development of a breakthrough bacterial lung disease test (Genechip) by BioPharmica and Diagnostic Array Systems at RMIT University in Melbourne, Australia, has experienced significant success:

- (a) The Genechip is showing an outstanding accuracy rate of 96% in detecting bacterial species. The current widespread method of growing bacterial culture on agar plates only works to grow cultures between 20% - 30% of the time, before you can even consider the accuracy of identifying the bacteria that do grow.
- (b) A leading International pathology company has agreed to participate in a blind study to validate the accuracy of the Genechip and compare it to current detection methods. The trial will involve over 500 clinical sputum samples from patients with lung disease; and
- (c) Initial sales are targeted for early 2006, with Diagnostic Array Systems indicating that regulatory approval is not likely to be required in Australia,

Testing of 53 clinical samples is underway, with a further 500 samples to be completed in January 2006 to determine the speed, accuracy and reliability of the Genechip.

Development of the Genechip has successfully passed other milestones including:

- (d) Identification and patenting of specific sequence signatures in the DNA of bacteria that cause pneumonia and tuberculosis by the product development team;
- (e) Bacterial signatures were successfully attached to the Genechip in an array format. The results were extremely clear and specific, enabling the Genechip to be used in identifying and distinguishing the tested bacterial species in clinical samples; and
- (f) More than 23 different species of bacteria can be identified in the one test.

BioPharmica's recently appointed Managing Director, Dr Sam Gallagher said "the potential for this relatively simple test to really make a difference to the diagnosis and treatment of lung disease is a big step forward in this arena. The lack of a realistic alternative makes this system so powerful."

"Many traditional diseases such as Pneumonia, TB and Whooping cough are creating significant health problems in the modern world and we need to be able to diagnose and treat these quickly and effectively, particularly in the elderly and in children."

"The younger the child, the more difficult it is to get sufficient sample to be able to grow a bacterial culture. This system requires very little of the original flora due to the amplification steps involved in microarray technology."

"We are not reliant on the growth characteristics of the disease bacteria with this system, all samples are processed, amplified and tested under the same conditions with a huge leap in accuracy."

The Genechip is being developed to enable doctors to accurately diagnose a bacterial pathogen and prescribe the correct therapy in a fast and cost effective manner.

"The protection of our Intellectual Property is the most important strategic issue at BioPharmica and we have been particularly careful about our announcement strategy in the past 6 months. Rather than rush out and make announcements that are either premature or risk our Intellectual Property position, we have chosen to take a more strategic view".

"I think we are really going to surprise a lot of people with the progress of our project portfolio".

"We have also stated that partnering is a key strategy that we will use to gain market access and we have been extremely active in this area in the last few months", said Dr Gallagher.

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BioPharmica is dedicated to the ideals of Personalized Medicine through the applied development of discoveries made through fundamental research coming from leading Australian biomedical researchers. Projects undergoing pre-clinical and clinical development are in the production of diagnostic arrays, nanoprobes, biomarkers and therapeutics for diseases including cancer, neurodegenerative, and infectious diseases.

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