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ASX Announcement

Biosignal & European Company Collaborate to Test Anti-biofilm Technology

Lab tests for ultimate use on medical devices to counter infections

20 December 2005, Sydney: Biosignal Ltd (ASX:BOS) and the Institute for Eye Research have established a collaboration with a major European-based medical products company to test Biosignal's anti-biofilm compounds as medical device coatings. The *in vitro* tests will occur at the company's European laboratories and at the University of New South Wales.

The project will involve first adapting the surface attachment of Biosignal's anti-biofilm compounds for silicon catheter surfaces and the second phase will be to investigate inhibition of biofilms on the catheter surfaces. Biosignal and IER have demonstrated that similar coatings effectively prevent biofilm formation on contact lenses and this expertise will now be applied to the broader medical device market. Two lead compounds which show the greatest activity against the most significant problem bacteria *Staphylococcus aureus* and *Pseudomonas aeruginosa* will be synthesised and functionalised for attachment.

The major European company is a world leader in its specific field and will contribute funds to the project,

Biosignal is negotiating similar arrangements for testing and product development of its novel anti-biofilm compounds with other medical device companies in non-competitive product fields. All these companies have substantial global market reach.

Biofilm formation on medical devices is one of the leading causes of bacterial infections. There are many different types of devices within each of the catheter/shunt, cardiovascular, drug delivery, surgical, ear/nose/throat, orthopaedic and dental device categories that would benefit from Biosignal's novel anti-biofilm coating technology.

Further, Biosignal reported at its recent Annual General Meeting that commercial scale up of its contact lens lead compound at Dr Reddy's in India is progressing well. The cost of production has dropped significantly since the initial phase of the scale up was completed in July. This lead compound is also relevant to medical device coatings.

Testing with the European company will start in January and will be completed in the second quarter of calendar 2006.

This is the first agreement which comes as a result of Biosignal's collaboration with biotech consultancy Puretech Development LLC in Boston. Biosignal and Puretech underwent a series of strategic partnering identification sessions with a particular focus on medical devices at the beginning of 2005. Senior Puretech advisors are now actively working with Biosignal to enter into agreements with leading life science companies.

Biosignal cannot disclose the name of the European company nor the specific medical application as a condition of the collaboration.

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About Biosignal and the anti-biofilm technology

Biosignal listed on the ASX in April 2004 to commercialise a novel anti-bacterial technology. The first application is reducing risks of infection from contact lenses.

Biosignal's anti-biofilm technology is based on a discovery that the eastern Australian seaweed *Delisea pulchra* produces natural furanones that disable bacteria's ability to colonise. The fundamental problem with existing anti-bacterials, including antibiotics, is their tendency to generate bacterial resistance. Bacteria rapidly produce resistant strains when faced with strong selective pressure by killing agents or growth-inhibitory agents. Furanones lull bacteria to inaction and appear to avoid the problem of bacterial resistance.

Biosignal produces synthetic compounds effective on inanimate surfaces such as pipes, membranes and medical devices; and animate surfaces such as lungs, skin and teeth.

The Institute for Eye Research is one of the elite Medical Research Institute's in Australia. Located in New South Wales, the Institute focuses exclusively on excellence in eye and vision research through investment in people, systems and innovation.

The Institute makes significant contributions to national and international eyecare research, education and business development and is involved in a wide range of vision projects. These are centred on four key areas:

- Management, prevention or cure of refractive errors
- Management, prevention or cure of infection and inflammation of the cornea
- Vision and eyecare education
- Public health support through ICEE Giving Sight