

MICROBIO OBTAINS SIGNIFICANT COMMERCIALISATION GRANT

[Brisbane, Australia]: Microbio Pty Ltd, an Australian-owned biotech company has been awarded a Federal Government Accelerating Commercialisation Grant to commercialise Microbio’s InfectID-Blood Stream Infection (BSI) diagnostic assay.

Microbio’s InfectID-BSI is a real-time Polymerase Chain Reaction (PCR) that rapidly identifies, within two hours, without the need to culture blood, 26 of the most common bloodstream infections and sepsis-causing pathogens. This funding will allow Microbio to complete its quality management system implementation, commence clinical trials, and establish manufacturing.

Microbio’s executive director, co-founder and chief executive officer, Paul Carboon expanded on how this grant now makes their tests a viable, commercial reality: “Our motivation behind the research is that sepsis kills 11 million people every year. InfectID-BSI adequately recognises pathogen causing infections resulting in patients being treated effectively. We are honoured to receive this prestigious funding for InfectID-BSI, as we can now take our product out of the laboratory to help the broader Australian health system.

“This grant is a real ‘vote of confidence’ from the Federal Government’s commercialisation experts, and we can now see a clear pathway to continue our pre-clinical tests for IID-BSI, to enhance and expedite the product to market.

“We are very excited to be developing a product that has the potential to impact millions of bloodstream infection and sepsis sufferers across the globe.

“We have conducted preclinical trials with two Queensland Health hospitals and are planning a full clinical trial for early 2021. All things going to plan, we hope to be in the market in 2022, which will give us the boost we need to expand our pathogen detection products into other sectors, including Defence, Agriculture, Food, Environmental, and Veterinary testing.”

Microbio’s executive director, co-founder and chief scientific officer, Dr Flavia Huygens added: “We are excited that our research, successful preliminary clinical studies and vision for taking our products to market have been rewarded with this grant.

“We are keen now to build on the work done to date as we work with clinicians, pathologists and manufacturing partners to contribute to Australia’s lively biotech and manufacturing industries.

“In the context of a pandemic, Australian science and technology have focussed on the benefits for all. We very much thank the Hon. Karen Andrews, Ministry for Industry, Science and Technology, for seeing our vision, helping to strengthen a new technological advancement and giving us the encouragement and support to take our work to an international playing field.

“We would certainly welcome the Hon Karen Andrews and her team to visit our laboratories as we develop and launch InfectID-BSI into the market. We understand, and are thankful for, Ms Andrew’s continued support of the sciences and new technological advancements.”

What is sepsis

Sepsis is a life-threatening illness caused by the body’s reaction to a Blood Stream Infection (BSI). Treatment must include administering effective antimicrobials to destroy the pathogen causing the infection. For every hour of delay in administering effective antimicrobial treatment, mortality rates increase substantially. The current ‘gold standard’ method

to identify the causative pathogen is a slow, two-step blood culturing and identification process that takes between 12 hours and 5 days and has limited sensitivity.

About Microbio's InfectID-BSI

InfectID-BSI is an *in vitro* diagnostic test that conveys to clinicians which BSI pathogens to treat within about two hours, significantly improving patient outcomes.

Preclinical testing on samples from patients at the Royal Brisbane and Women's Hospital and Mackay Base Hospital and Health Service has demonstrated InfectID-BSI's key features:

- Is tested on whole blood: no need to culture the blood before running the tests
- Rapid: results in about two hours (depending on the real-time Polymerase Chain Reaction (PCR) device used)
- Extremely sensitive: detects pathogens in the blood when there are only a few pathogen cells present
- Specific: the 26 most common BSI/Sepsis-causing pathogens are unambiguously identified
- Open hardware platform: designed to work on many standard real-time PCR devices, no need to purchase proprietary equipment

The InfectID-BSI assay unlocks the potential for early BSI/Sepsis diagnosis, and earlier use of optimal antimicrobials, which Microbio expects will improve patient outcomes, reduce health-care costs and contribute to better antimicrobial stewardship.

The science behind the test

InfectID-BSI is the result of 16 years of scientific work from Microbiologist Dr Flavia Huygens and her team at the Queensland University of Technology. Dr Huygens combined advanced bioinformatics, microbiology and genomics to develop novel reagents that target portions of pathogen genomes.

Ready for clinical trials

InfectID-BSI has performed remarkably on patient samples in Microbio's preclinical trials. It is now ready to be tested in clinical trials.

Microbio continues to explore growth opportunities for partnerships, clinical trials, customers, investment and government support to attain domestic and international regulatory approval and to establish onshore manufacturing.

Microbio is currently embarking on its Series B round and is interested in talking to investors who can assist Microbio in its rapid growth phase and potential stock exchange listing.

For more information, visit microbio.com.au/about

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For media enquiries or interview requests with Microbio's Chief Scientific Officer, Dr Flavia Huygens or Chief Executive Officer, Paul Carboon, contact:

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About Microbio

Microbio Pty Ltd is an Australian biotech start-up company based in Brisbane. It was established and motivated by the desire to eliminate the clinical frustration, vast expense and immense human suffering that sepsis causes.



The team at Microbio has brought together the latest advances in bioinformatics, genomics and molecular microbiology to develop a unique and revolutionary pathogen detection test, initially aimed at identifying bloodstream infection and sepsis-causing pathogens. The team pivoted when COVID-19 emerged to develop a SARS-CoV-2 diagnostic test. The Microbio team is working tirelessly to deliver their game-changing new test to the millions of patients who will benefit from better pathogen diagnosis. Microbio is actively seeking partners worldwide, especially in population health and infectious diseases, who will integrate the new *InfectID-COVID-19-R* test into their proactive regional and corporate testing protocols. Additionally, Microbio is looking to work with pathology and laboratory partners who can help deliver the *InfectID-COVID-19-R* test widely, including to remote locations, to improve patient outcomes.

About InfectID®

InfectID is designed to deliver real-time pathogen identification and antibiotic resistance profiling. Dr Flavia Huygens developed and validated a process that targets a pathogen's DNA 'fingerprint', found at a specific point in each pathogen's genetic code. By focusing on a small section of the genome rather than the whole genome, the process is fast, inexpensive, highly sensitive and can be adapted to target different pathogens. The test was refined and became the foundation of the InfectID suite of tests which uses real-time Polymerase Chain Reaction (PCR) to identify pathogen species directly from samples, including whole blood without the need for pre-culture. The process lends itself to being used to determine the presence of specific types of viruses, making it ideal for detecting SARS-CoV-2. InfectID tests make use of the melt curve capability of real-time PCR machines. They do not use probes, making them less expensive than standard PCR tests, and not affected by the supply issues that have occurred in recent months.

Microbio Founders

Dr Flavia Huygens | Executive Director, Founder and Chief Scientific Officer

Flavia's 30-year teaching and research career has focused on molecular microbiology, with a particular focus on human pathogens. Flavia's expertise and exceptional ability to bring together emerging technology in molecular microbiology, genomics, proteomics and bioinformatics have culminated in the creation of InfectID. Flavia recently received a DMTC Ltd 2020 Excellence Award in recognition of exemplary professional conduct in support of DMTC's objectives.

Paul Carboon | Executive Director, Founder and Chief Executive Officer

Paul has 25 years of commercialisation experience in the technology sector. Paul brings a deep understanding of commercial and product management as well as product development. Paul is a leader in biotechnology innovation. He currently serves on the AusMedtech national advisory group and is a founding adviser with the BridgeTech Program. Paul is also an Honorary Fellow of BioTechnology at Melbourne University and has been a judge for the prestigious Eureka award.