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## **Adelaide Company Secures Grant to Commercialise World Leading Biosensor**

An Adelaide company has secured funding to finalise prototypes and complete testing of a biosensor technology that is set to revolutionise the testing of water, wine and food throughout the world.

CleanFutures AquaSens, based in Adelaide, was formed specifically to develop the AquaSens biosensor. The technology is a rapid, highly sensitive sensor probe for the detection of nitrates and phosphates in water, and sulfites in wine and food products.

The technology was developed by Monash University in Victoria and had started its commercialisation process through a Victorian State Government body, Nanotechnology Victoria. When the funding was wound down for this body earlier this year, two South Australian entrepreneurs set about bringing the technology to Adelaide for further commercial development.

Kristin Alford and John O'Brien saw the global opportunity for the technology, secured the exclusive rights to commercialise it and established CleanFutures to bring it to market.

Bio Innovation SA recognised this potential and has provided funding through its Business Development Initiative(BDI) grant to allow the final testing to be completed.

"We are delighted to support CleanFutures AquaSens and are excited about the potential their technology has for the water, wine and food industries," said Mr Neil Finlayson, Bio Innovation SA's Business Development Director.

The funding will enable CleanFutures AquaSens to design and manufacture industrial prototypes of the biosensor and to then conduct customer trials. One of these trials will be completed with the Australian Water Quality Centre, SA Water's testing laboratory.

The technology allows for tests to be completed immediately and in the field rather than taking samples for further analysis in a laboratory. Results are within minutes rather than having to wait a week or more. Increased phosphates and nitrate levels are key indicators of the likelihood of blue-green algae forming. The use of this biosensor could provide early warning of problems in water bodies such as the River Murray.

"The BDI grant will enable CleanFutures AquaSens to complete critical milestones essential for progress through commercialisation, including designing and manufacturing an industrial prototype and conducting customer trials."

"We are excited to be able to further the early commercialisation work conducted by Nanotechnology Victoria and Monash University", said CleanFutures AquaSens' CEO, Kristin Alford.



The issue of sulfite in wine is currently a major problem for the industry: as it is hard to detect and it is estimated that 1% of the population are sulfite-sensitive. With South Australia's position as a leader in wine production, the development of the sulfite biosensor here is a natural fit. CleanFutures has arranged for the technology's inventor, Professor Sam Adeloju from Monash, to work with both Flinders University and The Australian Wine Research Institute (AWRI) to finalise the required research for the sulfite application of the AquaSens technology.

"Once proven the sulfite biosensor will enable all wineries to test every barrel of wine and make sure that sulfite levels are managed effectively. This will provide clearer consumer information for those that are sensitive to sulfite," said John O'Brien, CleanFutures AquaSens' CFO.

"The ability to test both water and wine on the spot will enable water companies and wine makers to be able to manage their products better. We believe that this technology will revolutionise testing the world over and further enhance South Australia's reputation for clean technologies," Dr Alford added.

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**FURTHER INFORMATION:**

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**About CleanFutures**

CleanFutures is a joint venture between Australian CleanTech and Bridge8 with the goal of successfully commercialising nanotechnologies that enable clean futures. Our combination of capabilities and connections means we are able to successfully fund and commercialise clean technologies.

Technologies that succeed in the future will be ones that serve the community in a sustainable way. These emerging technologies will be developed by combining many disciplines. Our combination of skills means we can take an innovative and integrated approach to commercialisation.

Nanotechnology provides many of the enabling mechanisms that allow cleantech companies to deliver both environmental benefits and investment returns. CleanFutures will deliver many game changing technologies with benefits for the community, the environment and the economy.

The AquaSens technology is the first technology that CleanFutures will bring to market.

Further information about us, our technologies and our capabilities is available at [www.cleanfutures.com.au](http://www.cleanfutures.com.au) or by emailing [cleanfutures@bridge8.com.au](mailto:cleanfutures@bridge8.com.au).