

QUT, CSIRO, UQ, and Eclipse team up in game-changing lactoferrin project

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Queensland University of Technology (QUT) researchers are at the forefront of a groundbreaking \$5.5 million initiative to commercialise human lactoferrin, a powerful protein known for its immune-boosting properties. The project is set to revolutionise the functional food, sports nutrition, and skincare industries.

Made possible through co-investment from Australia's Food and Beverage Accelerator (FaBA) and in collaboration with the University of Queensland and CSIRO, the initiative aims to produce human lactoferrin using precision fermentation with yeast, a feat long considered unscalable until now.

Dr James Behrendorff, Chief Investigator from QUT's School of Biology and Environmental Science, highlighted the significance of demonstrating scalable manufacturing, which enables testing from micro-scale through to 2000-litre production volumes.

"We're extremely excited to partner with Eclipse on this project that will develop precision fermentation for high-value ingredients from the lab bench all the way to pilot-scale manufacturing," said Dr Behrendorff.

Eclipse Ingredients CEO Siobhan Coster explained that lactoferrin, naturally found in breastmilk and immune cells, is recognised for its ability to support immunity and the microbiome, boost iron levels, and combat bacteria and disease. However, producing the human version at scale has remained a major scientific challenge.

"Lactoferrin has incredible qualities that are hugely beneficial for our health, yet the human version has been impossible to produce at scale," said Coster. "This partnership gives us access to world-class facilities and expertise, allowing us to focus on what we do best, turning breakthrough science into products that change lives."

With its unique combination of cutting-edge research and industrial collaboration, the project promises to unlock new possibilities for health-focused innovation across global markets.