

Quantum sensing device secures \$2.2M funding boost to improve iron diagnosis in Australia

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To revolutionise the diagnosis of iron disorders and improve access to advanced diagnostic tools in First Nations communities



New quantum sensing technology that could transform clinical iron testing has received a major funding boost of \$2.2 million through the Australian Government's Critical Technologies Challenge Program, supporting efforts to improve iron diagnosis in First Nations communities.

FeBI Technologies – co-founded by University of Melbourne Associate Professor David Simpson, Florey Institute of Neuroscience and Mental Health Associate Professor Gawain McColl and Dr Nicole Jenkins – is developing a quantum-based blood test able to measure iron levels cheaply, reliably, and accurately.

Associate Professor Simpson said the funding will support FeBI Technologies' mission to revolutionise the diagnosis of iron disorders and improve access to advanced diagnostic tools in First Nations communities.

"Iron is vital for health, and iron disorders affect up to one in three people globally. Current iron tests are confounded by chronic health conditions, which disproportionately impact First Nations peoples, resulting in misdiagnosis and delayed treatment," Dr Jenkins said.

The funding builds on an initial Stage 1 Critical Technologies Challenge Programme grant of \$494,000, which supported prototype development and community engagement activities in Katherine, Northern Territory.

The translational partnerships with the University of Melbourne, Florey Institute of Neuroscience and Mental Health, and Sunrise Health Service Aboriginal Corporation established in Stage 1 will be strengthened, and the consortium grown to include new partner organisations, including the Dijan Training Program (Katherine, NT) and Planet Innovation.

Key outcomes of this project are expected to include increased engagement of First Nations peoples in the national quantum ecosystem, development of an integrated FeBI prototype for testing clinical blood samples, and a strengthened commercialisation roadmap and regulatory data room.