UQ Summer Research Project Description - 2026

Project title:	Hidden Fat, Hidden Risks: How Muscle Fat Shapes Heart Health and Fitness
Hours of engagement & delivery mode	• This project will be delivered for approximately 30 hours per week. • It is to be offered on-site, with a hybrid arrangement possible for a maximum of 10 hours per week of remote work.
Description:	Fat stored within the muscle (called inter-muscular fat) is now considered a health risk indicator for developing cardiometabolic disease. Novel magnetic-resonance imaging (MRI) software allows us to measure intermuscular fat. This research program involves analysing MRI-derived intermuscular fat and evaluating its links with cardiometabolic disease and cardiorespiratory fitness, in people at risk of cardiovascular disease. It is hypothesised that inter-muscular fat will be linked with poor vascular health and that cardiorespiratory fitness will modify this risk.
Expected learning outcomes and deliverables:	Students will learn sophisticated imaging analysis (e.g. MRI) and statistical analyses. Students may also gain practical research experience in exercise for people with cardiometabolic disease including data collection. Students may generate data for publication from their analyses.
Suitable for:	This project is best suited to third or fourth year exercise science, exercise physiology or physiotherapy students but those from any biomedical or health background are welcome to apply. Experience with research methods/basic statistics is preferred.
Primary Supervisor:	Dr Shelley Keating
Further info:	It is not essential to contact the supervisor prior to submission, but contact is welcomed. Dr Shelley Keating s.keating@uq.edu.au