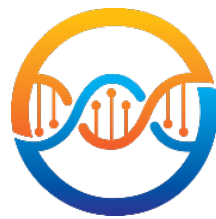


Honours research project opportunity



ARC RESEARCH HUB FOR

**Supercharging
Tropical Aquaculture**
THROUGH GENETIC SOLUTIONS

Understanding barramundi sperm quality



Contact Supervisor: Jarrod Guppy

(<https://scholar.google.com.au/citations?user=m9LLU8AAAAAJ&hl=en>)

Location: James Cook University, Townsville 4814, QLD Australia.

Other Supervisors: Professor Dean Jerry and others see <https://www.jcu.edu.au/arcsta/teams>

Honours/ Masters. Applicants should be familiar with the [Honours Student Research Requirements](#) and/or the [Higher Degree by Research Requirements](#).

Project summary

The production of viable offspring is underpinned by the quality of male and female gametes involved in fertilisation and can be heavily influenced by several factors including the individual's age, feeding and environment. In aquaculture systems, examining gamete quality is necessary to identify reproductively competent broodstock and select individuals to optimise the success of spawning events. However, from recent research the quality of male barramundi gametes at the point of pre-spawning selection does not predict the overall spawning success. This Honours/Masters project will examine the differences in gamete quality before and after pre-spawning selection to determine if the assessment or breeding approaches used are influencing overall spawning outcomes, and will also identify if there is an optimal time to collect milt samples for long term storage.

This Honours/Masters project is embedded within both The ARC Industrial Transformation Research Hub for Supercharging Tropical Aquaculture through Genetic Solutions, and the ARC Early Career Industry Fellowship - Novel reproductive approaches to de-risk and transform barramundi breeding.

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