

Maximal Swimming Velocity PhD Scholarship

University of Queensland • Queensland Academy of Sport • High Performance Swimming

≈ \$49,220 p.a.

Total stipend, tax-free

Up to 3.5 years

Full-time PhD candidature

Domestic Applicants

Australia / New Zealand

EOIs Close
30 October 2026

The Project

QAS and UQ are seeking a candidate to undertake a Doctor of Philosophy investigating the characteristics and capacities that drive changes in maximal swimming velocity in high-performance athletes.

Maximal swimming velocity is a key determinant of performance in sprint events (50 and 100 m) and may contribute in different ways to performance across middle-distance and endurance events. From a hydrodynamic perspective, maximal velocity is achieved by maximising propulsive forces whilst minimising drag. Performance support teams use many strategies to influence these factors, but their contribution to performance outcomes is often not well established.

Current theoretical frameworks and cross-sectional studies link athlete characteristics and capacities (e.g. strength, anthropometry, flexibility) to swimming performance, but there is limited evidence showing how changes in these parameters influence swimming velocity over time. Better understanding this transfer will help athletes, coaches and practitioners prioritise where training time and effort can have the greatest impact.

The candidate will be embedded alongside QAS performance support staff working with high-performance swimming. They will implement systematic longitudinal monitoring of maximal swimming velocity and investigate the physiological and biomechanical factors underpinning performance. This may include the development and evaluation of practical, in-water testing methods to enable longitudinal assessment. Alongside in-pool monitoring, the project will track measures such as functional strength and power, kinematics, and body composition/morphology to understand how they contribute to, and interact with, changes in swimming performance.

Research Environment

The candidate will be embedded within the QAS Swimming Program and UQ's St Lucia campus, with opportunities to work directly with athletes, coaches, practitioners and researchers in applied high-performance environments.

Supervisory Team

Will include Associate Professor Taylor Dick (UQ), Dr Simon Pearson (QAS), Dr Danielle Doyle (QAS) and Associate Professor Mark McKean (QAS/UniSC).

Who is Eligible

Applicants must be **domestic candidates** and meet UQ's requirements for entry to a Doctor of Philosophy and be eligible for a UQ Graduate Research School Scholarship.

Selection Criteria

- **Background:** sport science, biomechanics, engineering, data science or a related field.
- **Essential:** demonstrated ability to work effectively as part of a collaborative, interdisciplinary team.
- **Essential:** strong analytical and problem-solving skills and an aptitude for working with data.
- **Highly desirable:** a passion and desire to have a career working in elite sport.
- **Highly valued:** experience in an applied sport setting and working with athletes, coaches or performance support teams.
- **Assessment:** academic merit, previous research experience, project fit and alignment with QAS values and strategic priorities.

Value and Duration

Up to 3.5 years. Supported by a UQ Graduate Research School Scholarship of \$39,220 per annum (AUD) (2026 rate, indexed annually) plus a QAS top-up scholarship of a further \$10,000 per annum (AUD); approximately \$49,220 per annum tax-free for the duration of candidature.

Expression of Interest

Email a cover letter, CV, academic transcript(s) and evidence of English language proficiency (if applicable) to UQ at gamesengagement@uq.edu.au with subject line: UQ-QAS Scholarship EOI - Swimming.

Please note: Submitting an EOI does not constitute a full application for admission to UQ's PhD program. The preferred applicant will be invited to complete the formal UQ admission and scholarship process.

To discuss suitability before submitting an EOI contact:

UQ via gamesengagement@uq.edu.au or QAS via qasspike@qasport.com.au

Further Information:

<https://scholarships.uq.edu.au/scholarship/queensland-academy-sport-top-scholarships>