**UQ Summer Research Project Description - 2026**

*Please use this template to create a description of each research project, eligibility requirements and expected deliverables. Project details can then be uploaded to each faculty, school, institute, and centre webpage prior to the launch of the program.*

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| **Project title:** | **Shaping the Sense of Touch: Exploring Brain Plasticity in the Somatosensory Cortex** |
| **Hours of engagement & delivery mode** | This project will run for 6 weeks (consecutive or otherwise), within the period of 12 Jan – 20 Feb 2026.The hours of engagement will range on average between 30-36 hours.The project will be mostly on-site, as one of the main responsibilities will involve the testing of participants. Some tasks will be able to be carried out remotely, like data analysis or participant recruitment. |
| **Description:** | How flexible is the adult brain? This project investigates how experience can change the way we perceive touch, focusing on the somatosensory cortex — the brain region that represents our skin and fingers. Students will help design and run behavioural experiments that test how simple interventions, such as tactile training or synchronous finger stimulation, can improve or disrupt touch perception.These tasks are fun and accessible, yet powerful: they allow us to infer how the brain reorganises itself without the need for expensive imaging. As part of a neuroimaging lab, students will also see how behavioural findings connect to brain imaging studies, with the chance to visit UQ’s state-of-the-art 7T MRI scanner (one of only two in Australia). |
| **Expected learning outcomes and deliverables:** | *Gain hands-on experience with behavioural methods in cognitive neuroscience.**Develop skills in experimental design, data collection, and basic analysis.**Understand key concepts in brain plasticity and sensory processing.**Produce a short report or presentation summarising findings from their project.**(Optional) Gain exposure to cutting-edge brain imaging facilities.* |
| **Suitable for:** | This project is open to applications from students of any background training. Any experience in psychology, neuroscience, experimental methods will be helpful, but is not necessary. |
| **Primary Supervisor:** | Dr Harriet Dempsey-Jones |
| **Further info:** | Please contact Dr Dempsey-Jones if you would like to hear more about the project (h.dempseyjones@uq.edu.au).It is recommended but not necessary to contact Dr Dempsey-Jones before applying for the project to discuss how the project may suit your background and skillset.The project can either involve independent work from one summer scholar, or collaborative work from two scholars. |