

PhD Scholarships in Neuroimaging
Charles Sturt University
Australia

PhD Scholarships in Neuroimaging – Gulbali Institute

Job No.:

Location: Wagga Wagga

Employment Type: Full-time

Duration: 3.5 year fixed-term appointment

Remuneration: The successful applicant will receive a tax-free stipend, at current value of \$29,863 per annum (2023 rate) full-time rate, as per the Research Training Program (RTP) Stipend

- Be inspired, every day
- Drive your own learning at new innovative Gulbali Institute
- Take your career in exciting, rewarding directions

At CSU, we provide you the space and support to take your career in all kinds of exciting new directions. You'll have access to quality research, infrastructure and learning facilities, opportunities to collaborate nationally and internationally, as well as the grants you'll need to publish your work. We're a university full of energetic and enthusiastic minds, driven to challenge what's expected, expand what we know, and learn from other inspiring, empowering thinkers.

The Opportunity:

The Gulbali Institute at Wagga Wagga, Charles Sturt University offers a fully funded PhD scholarship in assessing the effect of early nutrition on brain/gut development and metabolism in piglets, an ideal animal model for human infants. You will use in vivo MR techniques (use of a 3.0 Tesla scanner) to visualize changes in cerebral development in collaboration with the Monash Bioimaging Centre. Current approaches will include 3D volumetric MRI (macrostructure assessment), diffusion weighted-imaging, and diffusion-tensor imaging (microstructure assessment), in conjunction with 1H-MR Spectroscopy (local cerebral metabolism). We are looking for talented students with a strong interest in novel early life nutritional intervention on neurodevelopment and cognitive function.

Nutrients can significantly affect multiple neural developmental processes by regulating neurotransmitter pathways, synaptic transmission, signal-transduction pathways, and synaptic plasticity and, thus, have a long-term influence on cognitive events well into adulthood. This PhD project will utilise qualitative approach to understand how human milk glycans alter cerebral development and regulating neurotransmitters and metabolic responses important in cognitive functions in piglets.

Supervisory Team:

[Professor Bing Wang](#), Gulbali Institute, Charles Sturt University

A/Professor Zhaolin CHEN, PhD, Head, Imaging Analysis Team, Head, MBI-IT Linked Laboratory, Monash Biomedical Imaging & Faculty of Information Technology, Monash University

Dr Xiaoming Zheng, Senior Lecturer in Medical Physics, School of Dentistry and Medical Sciences, Charles Sturt University

Selection criteria:

Applications are invited from outstanding and enthusiastic graduates with relevant backgrounds (Medicine, Neuroscience, Medical Physics, Engineering and IT, Nutrition, equivalent). Students will be of a high scholarly calibre and will have:

- A First-Class Honours degree, Masters degree or equivalent in relevant discipline
- Analytical thinking, data analysis and critical problem-solving skills
- Excellent time management skills and ability to work independently
- Applicants with peer-reviewed publications will be highly regarded
- Fluency in written and oral English
- International students should have English tests ELISA above 6.5. A good understanding of neuroscience or nutrition science and able to learn advanced imagine and data analysis.

Interested applicants should refer to the entry requirements for Doctoral Degree (PhD) as per Charles Sturt University requirements

How to apply

Prospective Higher Degree by Research candidates can apply for Gulbali Institute when completing their Charles Sturt course admission application. When given the option to apply for a scholarship select Yes > Full-time AGRTP > Other >> Neuroimaging – Gulbali Institute #103878.

Candidates should include the following when submitting the expression of interest:

- A cover letter that includes a brief statement of the applicant's suitability
- A curriculum vitae, including a list of any peer-reviewed publications, conference presentations and relevant work and/or research experience
- Scanned copies of academic transcripts
- A brief statement not exceeding 500-words in length that explains why you are interested in this research project/area
- Contact details of two academic referees

Those candidates who pass the expression of interest stage will be invited to submit a full scholarship application before the closing date.

Shortlisted candidates will be interviewed (over Zoom/Skype if necessary). The interviews will be conducted in English.

Enquiries

Professor Bing Wang, Gulbali Institute, Charles Sturt University

At Charles Sturt University, the health, safety and wellbeing of our staff, students and visitors is our top priority. In accordance with the [NSW Legislation - COVID-related legislation](#), we require all staff working or placed in healthcare facilities to be fully vaccinated (boosted) against COVID-19 or have an approved medical exemption from receiving a COVID-19 vaccine in order to attend these locations.