PhD Student Scholarship 4 years - $40k/y + up to $10k/y career development

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PROJECT DESCRIPTION
Radiotherapy is one of the primary modalities for cancer treatment. A long-standing goal of radiotherapy has been biological targeting of tumours. Multi-parametric MRI has shown potential in tumour response assessment in radiotherapy. Several different MRI sequences have been investigated previously for brain cancer. These include Susceptibility Weighted Imaging (SWI), Dynamic Contrast Enhancement (DCE), Diffusion Weighted Imaging (DWI) and Arterial Spin Labelling (ASL). This project will develop a new methodology to increase the survival rates for brain cancer using advanced MRI techniques. This project aims to develop methodology to actively monitor known heterogeneous treatment resistant tumour characteristics and specifically target them with radiation dose.

IDEAL CANDIDATE
Our ideal candidate is a self-motivated student who wants to make a positive impact on the lives of people with cancer. Some experience or interest in the following areas is desired:

- Quantitative image analysis
- Clinical imaging
- Programming
- Image processing
- Medical Physics
- Radiation Oncology

Any technical undergraduate course in mathematics, physics, computer science, engineering or similar will be considered.

We expect the willingness to work at the different sites and for research stays abroad that may last several weeks. Fluent English will be required.

If interested, please contact Dr Michael Jameson (michael.jameson@health.nsw.au) and apply online (https://www.scientia.unsw.edu.au/scientia-phd-scholarships/improving-brain-cancer-outcomes-mri-guided-adaptive-radiotherapy-intrepid)