



A PhD candidate is sought for a project on the development and characterisation of pasta as a functional food, a project that is a collaboration between UNE, the NSW Department of Primary Industries, and the Australian Nuclear Science and Technology Organisation. A top-up of \$3000 per annum will be available to the APA. The candidate will:

- Investigate the affect of various combinations of fibres on the benefits to pasta including assessment of in vitro glycaemic index, antioxidant capacity, fibre, protein quality, and impacts on rheological properties important for processing and consumption.
- Investigate the structure-function relationships in modified pastas using a range of analytical methods, potentially including but not limited to X-Ray Diffraction, Small Angle X-Ray and Neutron Scattering, Confocal Scanning Laser Microscopy, Scanning Electron Microscopy, and time-resolved Nuclear Magnetic Resonance Spectroscopy. Measurements will be made on the raw ingredients, uncooked pasta, cooked pasta and pasta digested *in vitro*.
- Explore the use of enzymes in selected functional pastas designed to reduce GI and see how the starch-protein-fibre network is disrupted using structural tools of investigation.

Applications close by 31 October 2009.

Applicants must be Australian citizens or permanent residents. PhD eligibility criteria can be obtained from: http://www.une.edu.au/courses/2009/courses/PHD Informal inquiries can be emailed to Dr. Chris Fellows or phone 02 6773 2470.

Scholarships are competitively available through the UNE's postgraduate program.

Application forms can be obtained from: http://www.une.edu.au/research-services/forms/domesticappform.doc





