

Research Officer/Postdoctoral Fellow Vacancy – Food Structure Design – New Zealand

Project title - Model Process for Alternate Make Cheese

Chief Supervisor – Professor Peter Munro, Riddet Institute, Massey University

Other Supervisors – Dr Peter Wiles, Fonterra Research Centre; Associate-Professor Matt Golding, Massey University; Associate-Professor Bryony James, Auckland University; Dr Pat Janssen, Massey University

This vacancy is one of a number of postdoctoral and PhD positions in Food Structure Design currently available in New Zealand. See the overall advertisement at <http://riddet.massey.ac.nz/jobs> for a description of the overall programme and its context.

The essence of this project is to develop suitable scale up criteria (plus operational guidelines based on the rheological properties of the cheese mass) for the cheese cooker and other cheese working equipment involved in a new alternate make cheese process developed by Fonterra. Various possible scale up criteria will be explored. Success will be achieved by confirming that the rheological behaviour and scale-up criteria developed on a small scale also apply at pilot plant and commercial scales by conducting trials.

Initially, a suitable model mixer/cooker will be fabricated to provide the rheological environment (including the time-scales and temperatures) to emulate the conditions in the commercial cooker. A variety of conditions will then be evaluated in the mixer/cooker. A transparent cooker pipe will be part of the rig to directly observe the mixing/rheological conditions in the process.

This equipment will then be used to elucidate the key factors that impact the cheese rheology. The postdoctoral fellow will also act as cosupervisor of a PhD project concentrating on the rheology of the cheese mass. Comparisons between model, pilot plant and commercial scale operation would be made to assess the validity of the insights.

The successful candidate will have completed a PhD in chemical engineering or food engineering with preference given to someone with expertise in process scale up and/or rheology of viscoelastic materials such as foods or polymers.

The salary will depend on experience but will be in the range for postdoctoral fellows or Research Officers at Massey University. The appointment will be for an initial term of two years.

Applicants please send your CV including a statement of your research interests and goals and at least two referees, plus your university transcripts when uploading your application to the following website: <http://jobs.massey.ac.nz>

Email enquiries regarding the position can be sent to [p.a.munro@massey.ac.nz](mailto:p.a.munro@massey.ac.nz).

Deadline – 29 February 2012