

UNIVERSITY OF NEW ENGLAND

# JUNIOR RESEARCH FELLOW / RESEARCH FELLOW IN STATISTICAL GENETICS AND GENOMICS (2 Year Fixed-term)

## School of Environmental and Rural Science

### Duty Statement

For appointment at the level of Junior Research Fellow, it would be expected that the incumbent would participate in these activities at a formative level.

- Undertake independently whole genome analysis of sheep data (CRC and Sheep GENOMICS)
- Adapt existing computer programming code or develop new code for programs to assist in such analysis
- Develop and test new methods for whole genome analysis, including those based on Bayesian inference
- Develop methods and software for effective use of genomic information to breeding programs
- Report on results in peer reviewed journal papers
- Assist in reporting to funders
- Communicate results verbally to funders, in seminars and at conferences

### Selection Criteria

Candidates should be able to demonstrate the following.

#### Research Fellow

- Appropriate qualifications and research training relevant to the duties, including completion of a PhD degree in animal genetics, statistical genetic or a related area
- Experience with statistical analysis of quantitative genetic models
- Experience in computer programming
- Ability to communicate with databases and to handle large data files
- A strong record of research achievement and publication, relative to opportunity
- Ability to communicate research outcomes and research ideas

It would also be desirable if the candidate could demonstrate

- Some work experience in the relevant field of study
- Experience with statistical analysis related to mapping of quantitative trait loci
- Experience in developing programs related to gene mapping
- A sound understanding of the application of molecular methods and molecular genetic data to the design and execution of genetic improvements programs
- A sound understanding of the application of bioinformatics in genetics/genomics research
- The ability to take initiatives and independently develop research proposals

#### Junior Research Fellow

- Appropriate qualifications and research training relevant to the duties, including completion or near completion of a PhD degree in animal genetics, statistical genetic or a related area
- Some experience with statistical analysis of quantitative genetic models
- Experience in computer programming
- Ability to communicate with databases and to handle large data files
- An emerging record of research achievement and publication, relative to opportunity
- Ability to communicate research outcomes and research ideas

It would also be desirable if the candidate could demonstrate

- Some work experience in the relevant field of study
- Some experience with statistical analysis related to mapping of quantitative trait loci
- Some experience in developing programs related to gene mapping
- An understanding of the application of molecular methods and molecular genetic data to the design and execution of genetic improvements programs
- An understanding of the application of bioinformatics in genetics/genomics research
- The ability to take initiatives and independently develop research proposals