# RESEARCHER JOB DETAILS

## School of Computing

### Research Assistant/Associate (Bioinformatician/Software Developer)

**Grade: F**        **Vacancy Ref: D105417R**

## Main Duties and Responsibilities

1. Researching and developing a data integration framework for drug related data
2. Researching and developing a network-based data warehouse and associated algorithms for data mining drug repurposing opportunities
3. Developing a data exploration portal suitable for use by clinicians on the project
4. Overseeing and managing the project objectives and goals on a day-to-day basis
5. Liaising and collaborating with the second research associate at Newcastle and the REPOTRIAL project members internationally
6. Contributing substantially to dissemination of team's research findings at an international level through conference presentations and production of high quality papers
7. Monitoring and managing research resources

## Research Role Profile

As part of our commitment to career development for research staff, the University has developed 3 levels of research role profiles. These profiles set out firstly the generic competences and responsibilities expected of role holders at each level and secondly the general qualifications and experiences needed for entry at a particular level. It is unlikely that any single member of staff will be applying all these competences at any one time but he or she would be expected to display most of them over a period of time.

Please follow this link to our [Research Role Profiles](#)

## Person Specification

### Knowledge (inc. qualifications)

*Essential*

- A PhD awarded or nearing completion in bioinformatics or a relevant area of computing science
- A knowledge of the latest approaches to semantic data integration
- A knowledge of formal data representation using ontologies
- A knowledge of interactive Web development
- A knowledge of programming in languages such as Java and Python
- A knowledge of databases and data management
- A knowledge of networks, graphs and associated algorithms
- A knowledge of systems administration and Unix

- A knowledge of bioinformatics workflows

*Desirable*
- A knowledge of drugs, drug targets and drug repurposing
- A knowledge of molecular biology and medicine
- Formal qualification in a biomedical subject
- A knowledge of molecular pathways and systems biology

## Skills (professional, technical, managerial, practical)

*Essential*
- Excellent interpersonal skills and an ability to collaborate effectively across a range of fields in an interdisciplinary context
- Ability to monitor and manage research resources and adaptability to changing research context and project needs
- Experience with large datasets and network databases
- Excellent writing and documentation skills
- Skills in administering Unix systems
- Ability to communicate effectively in supervising and training students and junior colleagues
- Excellent software architecture design skills
- Excellent programming skills
- Excellent project management skills
- Excellent skills in semantic data modelling and management, especially using RDF
- Excellent algorithm development skills
- Ability to assist in the development of project progress reports
- Web and human computer interaction design skills

*Desirable*
- Skills in delivering training workshops
- Skill in data analysis and dynamic computational modelling

## Experience and Achievements (paid or unpaid)

*Essential*
- Substantial experience in the development of software systems in a distributed computing environment
- Substantial experience in data modelling and analysis using graph and network based systems
- Substantial experience of ontology development

*Desirable*
- Experience of the drug development pipeline and pharmaceutical industry
- Experience of data management in clinical trials
- Experience in molecular biology and bioinformatics

**Other**

*Essential*

- Ability to interact with researchers of all levels within the University
- Excellent written and oral communication skills
- Good time management skills
- Comfortable working both on their own and as a member of a team
- Candidates must be able to spend time away from Newcastle visiting collaborators, and attending international conferences

For additional details about this vacancy and essential information on how to apply, visit our Job Vacancies web page at http://www.ncl.ac.uk/vacancies/