Candidate Information

Position: Research Assistant Bioinformatics (Future Medicines Institute)
School/Department: Faculty Office MHLS
Reference: 25/112419
Closing Date: Monday 10 March 2025
Salary: £33,785 per annum
Anticipated Interview Date: Friday 21 March 2025
Duration: Fixed Term - Full Time, available for up to 12 months

JOB PURPOSE:

The newly funded Future Medicines Institute (FMI) will be a collaborative innovation centre developed as a focal point to enable industry, academia and health professionals to drive research and development in the Life and Health Sciences (LHS) sector. It will build upon and exploit Northern Ireland's recognised capabilities and strengths in oncology and digital health to accelerate the development of biomarker-led products. The Institute's vision is a partnership of Northern Ireland's leading pharmaceutical, diagnostics and health analytics companies, alongside academic institutions and government agencies.

The Research Assistant will provide bioinformatics support for proteomics, genomics and multi-omics projects within FMI. The role will involve analysing high-throughput sequencing data, proteomics data, assisting in the development and maintenance of bioinformatics workflows, and contributing to research outputs. The post holder will work closely with computational and biology researchers in a multidisciplinary team.

MAJOR DUTIES:

1. Assist in the analysis of high-throughput sequencing data, including RNA-seq, single-cell RNA-seq, and other genomics datasets.
2. Assist in the development, testing, and maintenance of bioinformatics pipelines for proteomics and genomics data processing.
3. Act as a point of contact between the Bioinformatics and Proteomics groups.
4. Perform statistical analysis and generate visualisations to interpret experimental data.
5. Maintain up-to-date knowledge of public domain datasets, analysis tools, and methods relevant to FMI projects.
6. Collaborate with researchers to design experiments and integrate bioinformatics into project workflows.
7. Support the preparation of manuscripts, reports, and presentations for internal and external audiences.
8. Present progress updates and results at group meetings.
9. Undertake training as necessary to enhance technical expertise and project delivery.
10. Contribute to the general organisation and smooth running of the FMI bioinformatics group.
11. Read academic papers, journals and textbooks to keep abreast of developments.
12. Carry out any other duties designated by a line manager and which fall within the general ambit of the post.

ESSENTIAL CRITERIA:

1. Hold at least a 2.1 Honours degree in a relevant medical or life sciences subject, Statistics, Computer Science, or a closely related area.

2. Specific, relevant research experience to include:
    - Experience in the analysis of genomics and proteomics data, including high-throughput sequencing (e.g., RNA-seq) and proteomics workflows (e.g., mass spectrometry, protein quantification, and functional annotation).
    Proficiency in programming (at least two of Perl, Python, R, and Shell scripting) for data processing and analysis of multi-omics datasets.
    - Experience with Open-Source software and packages, particularly those relevant to genomics and proteomics analysis, such as Bioconductor, MaxQuant, Proteome Discoverer, or equivalent tools.
    - Experience designing, developing, managing, and analysing methodologies, technologies, and data for next-generation sequencing (NGS) and mass spectrometry-based proteomics.
3. Ability to plan and manage own workload and contribute to requisite administrative tasks.
4. Must demonstrate good team working skills.
5. Organised and attentive to detail and ability to meet deadlines.
6. Ability to work across multidisciplinary teams
7. Ability to communicate complex information clearly.
8. Ability to build contacts and participate in internal and external networks.
9. Ability to assess and organise resources according to adjusting priorities.
10. Team player, proactive, highly motivated and supportive of other team members.
11. Interest in driving research focussed programmes.
12. Willingness to travel to partner sites and collaborate with industry partners.

DESIRABLE CRITERIA:
1. MSc or PhD in in Bioinformatics, Proteomics or Genomics.
2. Experience in working within industry.
3. Experience working with proteomics datasets.
4. Experience working with High Performance Computing (HPC) environments, and/or cloud computing platforms, such as AWS.
5. Knowledge of cancer genomics.

ADDITIONAL INFORMATION:
Informal enquiries may be directed to Sinead Cahill at sinead.cahill@qub.ac.uk