Candidate Information

Position: Research Fellow (Computer Scientist)
School/Department: Centre for Cancer Research and Cell Biology
Reference: 19/107125
Closing Date: Wednesday 27 February 2019
Salary: £33,199 - £39,610 per annum (potential to progress to £43,266 per annum through sustained exceptional contribution)
Duration: Until 31 March 2021

JOB PURPOSE:

This post-doctoral computer scientist position, to work within the McArt laboratory with an established integrative analytical environment to update analysis modules and embed biological data, allowing non-computation biology users the ability to query information. The position is part of the recently-funded Cancer Research UK International Accelerator programme encompassing many different academic institutes and an exciting body of research.

The existing analytical environment, developed as part of a Queen's foundation project, offers researchers the ability to mine and analyse information remotely and securely with capacity to learn new insights into the data lake created. The post-holder will offer support to curate and ingest information to providing feedback and capacity for extended data exploration. The successful candidate will work within a stimulating research environment where collaboration and development of new ideas is strongly encouraged, alongside support for career development for emerging talents. The overarching goals of this research group is to improve survival rates for patients with CRC, through improved understanding of the signalling pathways underpinning initiation, invasion and metastasis in CRC.

MAJOR DUTIES:

1. Management of a bespoke database framework with potential connections to pertinent public databases.
2. To understand and analyse modern 'big data' profiles generated through different data sources.
3. To enhance software to analyse data and assist in programming of frameworks in the project.
4. To assist in pipeline development for the processing and analysis of raw data.
5. To offer analytical expertise for data in bioinformatic analyses for the other key teams.
6. To offer analytical outputs in defined and acceptable formats from analysis that can be interrogated by research and clinical scientists as required.
7. To support end-users to ensure data is interrogated appropriately and meets all standards for peer-reviewed publications.
8. To prioritise work on a day-to-day basis and liaise with colleagues to co-ordinate the service provision and project.
9. To work as part of the team and have excellent communication with colleagues and supervisors.
10. To prepare scientific manuscripts and presentations for peer review and publication.
11. To support the team leader with results writing and project reporting.
12. To present progress reports to the team and supervisor regularly as well as external audiences
13. To keep abreast of the field by reading scientific literature and attending relevant meetings when possible.
14. Any other reasonable duties within the general scope of the post and competence of post-holder

Planning and Organising:
1. To plan and deliver the specific goals of the project and contribute to research group planning.
2. To plan for the use of research resources, data resources and workshops where appropriate.
3. To plan own day-to day activity within framework of the agreed research project.
4. To coordinate and liaise with other members of the research group over work progress.

Resource Management Responsibilities:

1. To ensure research resources are used in an effective and efficient manner.
2. To contribute to informatics hardware and software maintenance and troubleshooting.
3. To provide guidance as required to support staff and any team members who may be assisting with research.

Internal and External Relationships:
1. To provide guidance as required to support staff and any team members who may be assisting with research.
2. To build internal contacts and participate in internal networks for the exchange of information and to form relationships for future collaboration.
3. To contribute to the School's outreach project results by establishing links with local community groups, industries etc.

ESSENTIAL CRITERIA:
1. Hold (or about to obtain) a PhD in computer science, computational biology, bioinformatics or related discipline.
2. At least three years relevant research experience in a computational field
3. Experience of working with Linux/UNIX environments
4. Experience managing, integrating and analysing different data sources
5. Publication record in a relevant field commensurate to experience
6. Proficiency with a modern high-level programming language
7. Experience creating, querying and maintaining databases, particularly MySQL or PostgreSQL
8. Experience with suitable analysis and plotting languages, particularly R, Python
9. Knowledge of high-performance computing systems and job scheduling
10. Ability to plan, organise & prioritise work and meet deadlines.
11. Excellent attention to detail.
12. Excellent verbal and written communicational skills.
13. Ability to communicate complex information clearly and efficiently.
14. Excellent organisational and inter-personal skills.
15. Team worker, highly motivated, supportive of colleagues within the group.
16. Ability to show initiative and work independently when required.

DESIRABLE CRITERIA:
1. 1st Class or 2.1 undergraduate degree.
   Understanding of cancer datasets
2. Experience in big data technologies.
3. Experience in big data technologies.
4. Track record of publications in big data analysis or software development including first authored publications in high-impact journals.
5. Experience contributing to applications for peer reviewed research funding from national or international granting bodies.
6. Excellent project management skills
7. Outstanding IT skills
8. Experience of delivering tutorials on informatics based approaches