Senior Research Fellow

Department/Unit	Monash Bioinformatics Platform
Faculty/Division	Faculty of Medicine, Nursing and Health Sciences
Classification	Level C
Work location	Alfred Hospital and Clayton campus
Date document created or updated	31 October 2016

Organisational context

Monash University is a university of transformation, progress and optimism. Our people are out most valued asset, with our academics among the best in the world and our professional staff revolutionising the way we operate as an organisation.

For more information about our University and our exciting future, please visit www.monash.edu.

The Faculty of Medicine, Nursing & Health Sciences is the University's largest research faculty. World-class researchers work across disciplines including laboratory-based medical science, applied clinical research, and social and public health research. The Faculty is home to a number of leading medical and biomedical research institutes and groups, and has contributed to advances in many crucial areas. Our expertise in life sciences and biomedicine is recognised both nationally and internationally. From a teaching perspective, our education curriculum covers a range of disciplines, including medicine, nursing, radiography & medical imaging, nutrition & dietetics, paramedic studies, biomedical sciences, physiotherapy, occupational therapy, behavioural neurosciences and social work. We take pride in delivering outstanding education in all courses, in opening students to the possibilities offered by newly discovered knowledge and in providing a nurturing and caring environment.

To learn more about the Faculty, please visit www.monash.edu/medicine

The **School of Biomedical Sciences and Monash Biomedicine Discovery Institute** is one of the largest and most dynamic biomedical research and teaching environments in Australia. The School and its cognate Departments of Anatomy and Developmental Biology, Biochemistry and Molecular Biology, Medical Imaging and Radiation, Microbiology, Pharmacology and Physiology comprise over 100 research groups and deliver discipline-focused teaching into our flagship Biomedical Science Degree, the Bachelor of Science Degree, as well as the Medical School and various Health-related Degree Programs. We pride ourselves on an excellent and evolving teaching curriculum and our teaching space is about to be transformed by a new $80 million dollar biomedical teaching building. Opening in 2019, the new building will provide world-class teaching and learning space for Biomedical Sciences.

All research staff in the School are also a member of the **Monash Biomedicine Discovery Institute (BDI)**. The BDI comprises six inter-disciplinary health-focused research Programs, each led by a research leader in the field. The BDI Programs include, Infection and Immunity, Cancer, Cardiovascular Disease, Development and Stem Cells, Metabolic Disease and Obesity and Neuroscience. The BDI works closely with clinical and drug development precincts at Monash and has a number of major industry partnerships to facilitate the translation of our research.

The School and BDI comprise over 100 research teams that publish over 700 papers in international journals every year. Annual research income is over $50 million, the vast majority of which comes from the NHMRC and ARC. For more information about the School of Biological Sciences, please visit our website at www.monash.edu/discovery-institute and www.med.monash.edu.au/sobs/.

Position purpose

The Monash Bioinformatics Platform is an emerging team that provides a hub for research collaborations in bioinformatics, and training as well as facilitating broader collaborations across Monash University's research groups. They are embarking on creating a node at the Alfred Hospital to provide strong support and collaboration from their hub at Clayton Campus. This new node is set to grow quickly in the near future, and the Research Fellow would join the Monash Bioinformatics Platform at a crucial time. This role will be part of an ongoing push to build the bioinformatics capacity at the Alfred Precinct.

The Senior Research Fellow (Bioinformatician) would be expected to spend the majority of their time at the Central Clinical School based at the Alfred Hospital, however will also work with the Monash Bioinformatics Platform alongside a team of expert bioinformaticians at Clayton on a regular basis.

Reporting line: The position reports to the Associate Professor (Research) - Scientific Director of the Monash Bioinformatics Platform

Supervisory responsibilities: The Research Fellow (Bioinformatician) may be required to provide supervision of junior staff

Financial delegation and/or budget responsibilities: N/A

Key responsibilities

A Level C research-only academic is expected to make original contributions to the research effort within her/his field of expertise and to the organisational unit or inter-disciplinary area of which he/she is a part. An academic at this level is expected to play a major role in research including the exercise of some leadership in research.

Specific duties required of a Level C research-only academic may include:

1. the conduct of research and the production of conference and seminar papers and publications from that research

2. supervision of research-support and administrative staff involved in the staff member's research

3. supervision, where appropriate, of the research of less senior research-only Academic staff

4. involvement, where appropriate, in the promotion of research links with outside bodies

5. preparation of research proposal submissions to external funding bodies

6. significant role in research projects including, where appropriate, leadership of research teams or management of projects

7. responsibility for the oversight of financial management of grants received for her/his research projects;

8. involvement in professional activities including, subject to availability of funds, attendance at conferences and seminars in the field of expertise

9. occasional contributions to the teaching program within the field of the staff member's research

10. supervision of major honours or postgraduate research projects within the field of the staff member's area of research

11. various research-related administrative functions; and

12. attendance at meetings associated with research or the work of the organisational unit to which the research is connected and/or at departmental, school and/or faculty meetings and a major role in planning and committee work

Skill base

A Level C research-only academic will normally have a relevant doctoral qualification or equivalent accreditation and standing together with subsequent research experience. A position at this level will require a demonstrated strong record of publications, conference papers, reports and/or professional and/or technical contributions in the relevant discipline area.

Key selection criteria

1. A PhD or higher degree or equivalent experience in a relevant discipline, such as biology, computer science, physics, statistics or bioinformatics

2. Well-developed interpersonal and written communication skills

3. A broad knowledge of bioinformatics and computational biology and the various high-throughput techniques that may are used, with a high-level understanding of how to analyse such data

4. Proven experience in biological research, including genomic analysis, and a solid track record of publishing to a high standard

5. Demonstrated experience in handling large data sets and analysis of high-throughput experimental data and analysis and integration of RNA-seq and/or ChiP-seq

6. Extensive experience with R, in particular various visualizations of genomic data, and experience working in a Unix environment

7. Experience using existing bioinformatics analysis tools and a high level of programming skill

8. Ability to solve highly complex problems, including through the application/use of sophisticated analytical and diagnostic skills, discretion, initiative, innovation and specialized expertise

9. A proven track record of applying for grant funding, and being involved preparing grant submissions is desirable

10. A demonstrated capacity to work both independently and collaboratively as part of a team

11. Experience with public cancer data sets such as TCGA and ICGC

12. Experience in DNA genome-wide methylation sequence data

Other job-related information

- Travel may be required between campuses
- There may be peak periods of work during which the taking of leave may be restricted

Legal compliance

Ensure you are aware of and adhere to legislation and University policy relevant to the duties undertaken, including: Equal Employment Opportunity, supporting equity and fairness; Occupational Health and Safety, supporting a safe workplace; Conflict of Interest (including Conflict of Interest in Research); Paid Outside Work; Privacy; Research Conduct; and Staff/Student Relationships.