A. JOB PURPOSE

The appointed person will work on research projects in the area of immuno-virology that are aimed at better understanding the epidemiology and pathogenesis of hepatitis B and C infection. The successful applicant will be responsible for providing high-level scientific support to facilitate several projects as well as perform in interdisciplinary team, as well as to support supervisions of postgraduate students.

B. MAIN DUTIES

Develop and perform statistical analyses of high-throughput sequencing data.
- Update and develop bioinformatic and statistical tools to analyse genomic data as well as immunological data in the context of viral infections.
- Keeping accurate records of all experimental data, protocols and procedures
- Preparation of manuscripts relating to this research for publication in high impact journals.
- Assistance in the preparation of grant funding applications to the NH&MRC, ARC and presentation of research findings at local seminars, national and international.
- Presentation of research findings at local seminars, national and international conferences.
- To support postgraduate research students in their work within the group.
- Cooperate with all health and safety policies and procedures of the university and take all reasonable care to ensure that your actions or omissions do not impact on the health and safety of yourself or others
- Other duties as directed.

C. ENVIRONMENT

Position Context

The School occupies the Wallace Wurth (Medicine) building at UNSW, and is physically linked to both the Lowy Cancer Centre, and the School of Biotechnology and Biomolecular Sciences. Core research facilities exist within this Biomedical Science Precinct to fully support virtually all contemporary forms of biomedical research. The School is integrally linked to the Centre for Vascular Research, the Brain Sciences UNSW Institute. It is adjacent to the Prince of Wales/Sydney Children’s Hospital/Royal Women’s Hospital complex at Randwick. Strong collaborative ties exist with the Children’s Cancer Institute Australia, the Prince of Wales Medical Research Institute, the Garvan Institute and the Victor Chang Cardiac Research Institute. The role will operate within the Computational Biology and Bioinformatics Group on the fourth floor of the Lowy Cancer Centre, as well as on the fourth floor of the Wallace Wurth building.

Statistics

The Inflammation and Infection Research Centre (IIRC) is a cross-disciplinary, collaborative research program based in the School of Medical Sciences at UNSW, which includes over 60 wet-lab-based research staff and students, and a further 30 academic staff and dry lab or field researchers.
The IIRC broadly aims to define the pathophysiology of inflammation in human diseases, and to provide improved strategies for prevention and treatment. Studies directed towards achieving this goal are undertaken using a variety of cellular, molecular and proteomic techniques.

The School of Medical Sciences consists of approximately 200 academic, general and research staff within the Departments of Anatomy, Physiology, Pharmacology, Pathology and Health & Exercise Science. The School has an annual budget of approximately $17 million. There are approximately 200 research projects valued at more than $11 million based within the School. Sources of funding include the National Health and Medical Research Council, the Australian Research Council and the National Heart Foundation. The School of Medical Sciences also delivers courses and programs to more than 5000 undergraduate, Honours and postgraduate students. In addition, the School also offers distance education programs in several areas. In terms of undergraduate teaching, the Department is engaged in a variety of programs including Medicine, Medical Science, Health and Exercise Science, and Advanced Science.

Reporting Relationships

Supervisor’s title: Senior Lecturer, Head of the Computational Biology and Bioinformatics Group

Other positions reporting to the supervisor: Research and administrative staff

Positions reporting to this position (show position titles and levels): None

Pre-employment checks required for this position

Based on the duties, responsibilities and requirements of this position, appointment to this position is subject to satisfactory completion of the following pre-employment checks:

qualification verification

An applicant may be required to undergo pre-employment checks prior to appointment to this role

D. PRINCIPAL ACCOUNTABILITIES

- Computational methods and statistical analyses developed and conducted at high scientific standard
- Projects and duties delivered in a timely manner
- Regular support in the supervision of postgraduate students involved in similar or same projects.
- Regular reporting (at least 1-2 times per week) to supervisor about work in progress and periodic presentation of findings at meetings of the group.
- Timely and accurate assistance in the production of scientific manuscripts.
- Participate in relevant administrative / management activities.

E. SELECTION CRITERIA

- PhD in Statistics, Computational Biology, Physics, Mathematics, or related fields.
- Demonstrated research experience in biostatistics, biomedical research, or bioinformatics/computational biology.
- Ability to acquire new techniques and develop new methodology.
- Advanced computing skills. Knowledge of program languages and statistical packages, such as bit not limited to R, C/C++, Python, Perl.
- Excellent oral and written communication skills
- Capacity to work independently, as well as work effectively as part of a multi-disciplinary team.
- Knowledge of health and safety responsibilities and commitment to attending relevant health and safety training
- Knowledge of equal opportunity principles