



UNSW
THE UNIVERSITY OF NEW SOUTH WALES



**RESEARCH FELLOW IN MATHEMATICAL/COMPUTATIONAL
BIOLOGY**

FACULTY OF MEDICINE

CENTRE FOR VASCULAR RESEARCH

REF 6587

Research Fellow in Mathematical / Computational Biology
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Salary Level A: A\$53,860- A\$71,814 (plus 9% employer superannuation plus leave loading)

Applications are invited for a Research Fellow in the Complex Systems in Biology Group at the UNSW Centre for Vascular Research to work on a research project aimed at better understanding immune responses to infectious diseases. A highly motivated scientist with a strong background in a quantitative / computational discipline (physics / engineering / mathematics / computer science / bioinformatics) is needed to work in a dynamic and growing group.

This is a fixed term appointment to 31 December 2010. The successful applicant may be required to undertake a criminal record check.

Applicants must address the selection criteria in their application.

Having read all the documentation you may then direct any enquiries to Miles Davenport on (61 2) 9385 2762 or email m.davenport@unsw.edu.au

Applications close: Wednesday 18 July 2009

Research Fellow in Mathematical / Computational Biology
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A. Job Purpose

The Complex Systems in Biology group investigates immune responses to infectious diseases using mathematical, computational, statistical and/or bioinformatics approaches. This position will involve analysis of experimental data, model development, working closely with experimental collaborators, and supervision of postgraduate students and research assistants.

B. Duties

- Effective design and performance of research in consultation with supervisor.
- Preparation of manuscripts, abstracts, presentations, and grant applications.
- Supervision and co-supervision of postgraduate students and research assistants;
- Cooperate with all health and safety policies and procedures of the University and take all reasonable care that their actions or omissions do not impact on the health and safety of others in the University.

C. Work Environment

The position will be based in Randwick at the UNSW Centre for Vascular Research.

D. Statistics

The Complex Systems in Biology Group is lead by Associate Professor Miles Davenport and currently consists of four other research staff and six postgraduate students. The Complex Systems in Biology group utilises theoretical, mathematical, computer modelling and bioinformatics approaches to investigate biological processes. The main research interests of the group include: immune responses to infection, viral dynamics, immunologic memory, antigen presentation, and T cell receptor repertoire. The group has a strong record in publication and grant funding, with >12 papers per year, and holds 4 NHMRC and two ARC grants.

E. Reporting Relationships

Supervisors title: Associate Professor.

Positions reporting to the supervisor: Various research/technical staff.

Positions reporting to this position: Research assistants and postgraduate students.

F. Principal Accountabilities

- Effective design and performance of research experiments to a high scientific standard.
- Effective preparation of manuscripts, abstracts, presentations and grant applications.
- Effective supervision and co-supervision of post-graduate students and research assistants.
- Timely and appropriate communication with other team members and collaborators.

G. Selection Criteria

- A PhD in mathematics/ statistics/ physics/ computer science/ engineering/ bioinformatics / biology or any disciplines related to the above.
- Strong analytical, quantitative, and computational skills.
- Publication record in chosen field.
- Excellent communication skills.
- Ability to work effectively as a member of a research team.
- Knowledge of EEO/AA principles , willingness and capacity to implement required OHS policies and safe work practice

INFORMATION ON THE BENEFITS OF WORKING AT UNSW

Benefits of Working at UNSW

The University of New South Wales (UNSW) is one of the leading teaching and research universities in Australia. Renown for the quality of its graduates and its commitment to new and creative approaches to education and research, the University motto - *Scientia Manu et Mente* ("Knowledge by Hand and Mind") - encapsulates the University's central philosophy of balancing the practical and the scholarly.

University Environment

UNSW offers a modern, dynamic and innovative teaching and learning environment with extensive social and recreational facilities. The UNSW campus is a compact yet beautiful, architecturally sophisticated setting, offering an enviable, cosmopolitan lifestyle for staff and students. Study and research facilities are comprehensive, with a widely acclaimed library network housing more than two million volumes, extensive electronic resources and access to volumes held in libraries at all major Australian research institutions. There is an award-winning bookshop on campus and a vast array of student services available.

UNSW has hundreds of sport and recreational clubs and societies for staff and students including several classical music groups who perform regularly. There is also a top class gymnasium with a fully equipped weights/cardio room, indoor swimming pool and a range of classes and courts to suit all fitness needs.

The UNSW campus boasts a vibrant cafe scene and is situated in the beautiful Eastern suburbs of Sydney just minutes from the famous Coogee and Bondi beaches. In addition, the local area is renowned for its large number of high quality, award winning, restaurants and cafes all of which are just minutes away. UNSW also boasts the famous National Institute of Dramatic Arts (NIDA) and the Randwick racecourse as neighbours.

Employer of choice for women



UNSW has been recognised for creating a work culture that supports and advances women with an Employer of Choice for Women citation. The award comes from the Equal Opportunity for Women in the Workplace Agency (EOWA).

The University was acknowledged as one of only 115 organisations across Australia that actively recognise and address the needs of female workers, to assist them to reach their full potential in the workplace.

University Diversity

UNSW values the diverse social, economic, cultural and religious backgrounds of its employees and promotes this by providing an accessible campus environment, flexible work practices for those with family and other responsibilities or with disabilities, including training on diversity management and cross-cultural communication.

As an UNSW employee you will be able to enjoy a safe and non-discriminatory environment and have the same opportunities to benefit from employment as other employees. In relation to employment equity, staff can access work opportunities such as staff development and training, promotion and re-evaluation, higher duties and a suitable and safe working environment.

Leave Entitlements

Recreation Leave accrues at the rate of one and two-third days per month to a total entitlement of 20 days per year. Recreation leave cannot be taken in advance of its accrual.

Sick Leave is granted under the following arrangements: ten days in the first year of service, 15 days in the second and 30 days in any subsequent year.

Special Leave of up to three days per year may be granted in cases of emergency and unforeseen circumstances e.g. fire or flood damage to your home. Applications for Special Leave must be made to the supervisor and will be considered on its merits. There is no entitlement to Special Leave if the leave sought is during a period of other leave.

Observation of Holy Days and Essential Religious or Cultural Duties allows you to utilise recreation leave or long service leave or leave without pay for the purposes of attending holy days or essential religious or cultural duties associated with your particular religious faith or culture.

Carer's Leave allows you to use part of your sick leave to care for an immediate family member who is ill. Up to 10 days of sick leave entitlement can be used as carer's leave in any one of the first two years of employment. In the third and subsequent years up to 12 days of sick leave can be used for carer's leave.

Parental Leave is available to cover such situations as maternity leave, adoption leave and paternity leave.

Long Service Leave (LSL) may be applied for after ten years service. The minimum period of long service that can be taken is one week.

Bereavement Leave of up to three days per year may be granted in the case of death of an immediate family. In unfortunate circumstances where another immediate family member is deceased in the same year, approval to grant a further three days bereavement leave may be granted by the Director, Human Resources.

Leave Without Pay (LWOP) may be granted on application.

Limited Paid External Work related to your profession or discipline may be undertaken with the approval of the University provided such activities do not interfere with the discharge of University duties. Approval from the Head of School is required for staff to undertake such activities and to accept any associated fee or commission.

Special Studies Program (SSP) is available to academic staff to be released from teaching and administrative duties to engage in research or other scholarly work or to undertake a project related to teaching or academic administration. SSP is normally of 6 months, but applications for periods over 6 weeks and up to 12 months will be considered where an appropriate case is made. Academics must complete three years of service to be eligible to apply for SSP.

The participation of academic staff in SSP is not an entitlement but is based on the needs of the University, the nature of the proposed project and the capacity of the staff member to make effective use of the opportunity.

Salary

Salary is paid fortnightly (every second Thursday) calculated up to and including the Thursday. Payment is made to a bank, building society or credit union account nominated by the employee. The University's flexible payroll system allows premiums, medical and hospital fund contributions, and credit union deposits or repayments.

Tax Effective Salary Packaging Options

The University recognises the value to employees of flexible remuneration planning. Salary sacrificing is one way to provide this flexibility. The principle aim of salary sacrificing is to legitimately restructure the way you receive your salary to suit your individual needs and potentially maximise your take home

pay. This is achieved by allowing you to receive part of your salary in the form of benefits rather than receiving it all as salary.

Benefits include

- [Child Care](#)
- [Electronic Diary or Personal Digital Assistant \(PDA\)](#)
- [Laptop or Notebook Computers](#)
- [Lifestyle Clinic \(UNSW Medicine\)](#)
- [Motor Vehicles](#)
- [Parking](#)
- [Superannuation](#)
- [Membership of the UNSW Fitness and Aquatic Centre](#)
- [Association of Tertiary Education Management](#)

Superannuation

The University offers a generous superannuation scheme with up to 17% employer contributions available to most staff on contracts of 2 years or more. For contracts of less than 2 years an employer contribution of 9% is paid. UNSW employees who are members of the Superannuation Scheme for Australian Universities (SSAU) and the UNSW Special Purposes Superannuation Scheme have the option of salary sacrificing.

Family Friendly Work Practices

UNSW has a comprehensive range of family-friendly work practices in place to assist staff maintain a work-life balance. These practices are designed to find the best possible match between the interests of the University and those of individual employees and can include flex-time, permanent part-time work, tele-commuting (working from home), job sharing, provision of child care, recognition of carer's responsibilities and generous, flexible leave, such as parental leave and carer's leave.

Onsite Car Parking

In addition, onsite parking is available for staff for a nominal fee.

University-Based Child Care Centres

There is a range of child care related assistance offered by the University. Child care waiting lists can be long, so it is advisable to inquire about places well in advance. The centres which provide places for children of staff are Tigger's Place, the House at Pooh Corner and Kanga's House.

Tigger's Place Priority is given to staff of UNSW.
Hours: 8.15am – 6:00pm
Places for 40 children (15 babies and toddlers, 25 children aged 2.5 – 6 years)

The House at Pooh Corner Priority given to UNSW students, then staff, then the community
Hours: 8:00am – 6:00pm, 48 weeks per year
Places for 72 children, ages 6 weeks to 5 years

Kanga's House Priority given to staff of UNSW and local community.
Hours: 8:00am – 6:00pm (babies room 5:30pm)
Places for 99 children aged 3 months to 5 years.

A ***child care salary packaging scheme*** is available to staff using the University's work based child care centres. This scheme allows staff to allocate a portion of their pre-tax salary for child care.

Other Services

E-mail and Internet Access is available for all staff. Employees are able to utilise the internet provider and email services of the University not only as part of their day-to-day work requirements but also for home use. The rates for home use are very competitive with commercial providers.

The University Library and its services are available to staff. Upon receiving your employee number and completing an application form you will have full borrowing rights.

UNSW Fitness and Aquatic Centre is located on the lower campus and is open seven days a week offering a wide choice of recreational and fitness activities for groups and individuals. Activities available include the use of the University swimming pool, and cardio/weights gym, a comprehensive group fitness timetable and the hire of volleyball, basketball, indoor soccer, badminton, table tennis, tennis and squash courts.

In addition, UNSW Sport and Recreation offers a wide range of sports clubs, and recreational courses and activities. A sample of the courses offered includes archery, ballroom dancing, scuba diving, martial arts, sailing, skydiving and yoga. More information is available at www.sportandrec.unsw.edu.au

The University Health Service provides a full range of GP, dental and physiotherapy services for staff and students and their families. The medical practitioners bulk bill. The Service is located on the ground floor of eastern wing of the Quadrangle Building.

An **Optometry Clinic** offers staff and students general eye examinations, specialist low vision services, colour vision assessment, vision training, sports vision assessments and contact lens fitting. Eye examinations are covered by Medicare. Spectacles and contact lenses are supplied at a reduced cost.

A free and confidential **Staff Counselling Service** is available to University staff through the UNSW Employee Assistance Program (EAP) which is provided by an independent firm engaged by the University.

Chaplains from a variety of religious denominations are available.

The National Institute of Dramatic Art (NIDA) is located on the Kensington Campus. Several student productions (some free) are held during the year in the NIDA theatre or the Parade Theatre, which are both on Anzac Parade. The School of Theatre, Film and Dance holds public performances in the Io Myers Studio. Various student groups also stage productions and reviews during the year.

The Australia Ensemble is resident at the University. Each year it performs six evening concerts in the Sir John Clancy Auditorium and holds free daytime rehearsals before each concert which staff and students may attend. Other musical highlights include performances by The Collegium Musicum Choir, the UNSW Orchestra, Pipers Wind Band and UNSW Opera.

Banks and Credit Unions are located around the University. The Commonwealth Bank, the ANZ Bank and Unicom have separate branches and a number of ATMs are located on campus. A range of other banks and credit unions are located within short walking distance at Randwick.

Transport

All employees have access to the use of several undercover parking stations located on the University. For a small fortnightly salary deduction, employees can enjoy this 24 hour service on a daily or long term basis.

The University is well serviced by public transport buses both to and from the University. Special express bus services are also available for staff and students. The State Transit Authority have a help line open from 6am to 10pm, the number is 131 500. State Transit also has a web site located at www.sydneytransport.net.au.