



POSITION DESCRIPTION

Centre for Epidemiology and Biostatistics
Melbourne School of Population and Global Health
Faculty of Medicine, Dentistry and Health Sciences

RESEARCH FELLOW BIOSTATISTICS

POSITION NO	0045322
CLASSIFICATION	Research Fellow Level B
WORK FOCUS CATEGORY	Research Focused
SALARY	\$98,775 – \$117,290 p.a.
SUPERANNUATION	Employer contribution of 9.5%
WORKING HOURS	Full-time
BASIS OF EMPLOYMENT	Fixed Term position available for 2 years Fixed term contract type: Research
OTHER BENEFITS	http://about.unimelb.edu.au/careers/working/benefits
HOW TO APPLY	Online applications are preferred. Go to http://about.unimelb.edu.au/careers , select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Prof. Julie A Simpson Telephone: +61 3 8344 0732 Email: julieas@unimelb.edu.au <i>Please do not send your application to this contact</i>

For information about working for the University of Melbourne, visit our website:
about.unimelb.edu.au/careers

Position Summary

This research position will involve providing statistical support to Melbourne Medical School researchers conducting primarily clinical trials research, with the focus on building long term collaborations. The appointee will be based within the Biostatistics Unit of the Melbourne School of Population and Global Health, and will be a team member of the Biostatistics node of the Melbourne Clinical and Translational Science Research Platform (MCATS).

The appointee will provide advice regarding the statistical aspects of clinical research such as study design, sample size determination, statistical analysis of data, and presentation and interpretation of research findings. The appointee will also provide advice and guidance on developing grant applications with research teams who are submitting to national peer reviewed funding schemes and deliver the occasional workshop on statistical methods to research staff and students. There will also be scope for methodological research with other biostatisticians within the Biostatistics Unit.

The appointee will primarily report to Professor Julie Simpson (Head of the Biostatistics Unit, Melbourne School of Population and Global Health), and work closely with Ms Sabine Braat (MCATS senior biostatistician).

1. Key Responsibilities

1.1 RESEARCH AND RESEARCH TRAINING

- ▶ Contribute to the statistical aspects and writing of research proposals (e.g. trial protocols) and grant applications, e.g. performing sample size calculations and writing statistical analysis plans.
- ▶ Contribute to database preparation, provide input into data and safety monitoring plans, and write interim and maintenance reports during study conduct.
- ▶ Perform statistical analyses and write/support papers reporting the results of trials or research collaborations.
- ▶ Review and triage statistical queries from the web portal of the Melbourne Clinical and Translational Science (MCATS) research platform for either referral to one of the biostatistics nodes located within the Academic centres or for establishing a direct statistical collaboration

1.2 TEACHING & LEARNING

- ▶ Contribute to and participate in teaching and learning activities in the School and MCATS, including the preparation and delivery of lectures, workshops, etc.
- ▶ Co-teach short courses on statistical methods and statistical computing (e.g. Sample Size and Statistical Analyses for grant applications).

1.3 LEADERSHIP & SERVICE

- ▶ Actively participate at School and/or Faculty and/or MCATS meetings and contribute to planning or committee work to build capacity in the School/discipline.
- ▶ Actively participate in key aspects of engagement within and beyond the University e.g. School's outreach, first year orientation, academic advising and other external bodies.
- ▶ Participate in community and professional activities related to the relevant disciplinary area including attendance and presentations at conferences and seminars.

- ▶ Positive engagement in learning and career development of self and others.
- ▶ Effective demonstration and promotion of University values including diversity and inclusion and high standards of ethics and integrity.

2. Selection Criteria

2.1 ESSENTIAL

- ▶ PhD or near completion of PhD in biostatistics or equivalent professional qualification.
- ▶ Demonstrated experience in the design and analysis of clinical trials, including sample size calculation, writing statistical analysis plans, and conducting analyses.
- ▶ Excellent written and verbal communication skills.
- ▶ A track record of publication of peer-reviewed scientific articles.
- ▶ Demonstrated ability to work independently and collaboratively in a team to achieve project goals and meet agreed deadlines.
- ▶ Ability to simplify and convey statistical concepts to people with limited statistical knowledge.

2.2 DESIRABLE

- ▶ Previous experience in teaching biostatistics.
- ▶ Aptitude and enthusiasm to supervise graduate research projects.
- ▶ Demonstrated ability to develop research collaborations.
- ▶ Experience in contributing to grant applications.

3. Equal Opportunity, Diversity and Inclusion

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. This commitment is set out in the University's People Strategy 2015-2020 and policies that address diversity and inclusion, equal employment opportunity, discrimination, sexual harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people's age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous strive to service for excellence and reach the targets of Growing Esteem.

4. Occupational Health and Safety (OHS)

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

<http://safety.unimelb.edu.au/people/community/responsibilities-of-personnel>

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.

5. Other Information

5.1 BIOSTATISTICS UNIT, CENTRE FOR EPIDEMIOLOGY AND BIOSTATISTICS, MELBOURNE SCHOOL OF POPULATION AND GLOBAL HEALTH

The Biostatistics Unit at the Centre for Epidemiology and Biostatistics currently employs 3 senior biostatisticians and 9 postdoctoral researchers, and has 5 higher degree research students. We have developed an integrated program of methodological and collaborative research, as well as providing statistical training to build a skilled research workforce. Our group delivers the Master of Biostatistics (an affiliated partner of the Biostatistics Collaboration of Australia, [BCA](#)), as well as leading biostatistics teaching within the Master of Public Health and Master of Science (Epidemiology). We also lead the Biostatistics node of the Melbourne Clinical and Translational Sciences (MCATS, <http://clinicalresearch.mdhs.unimelb.edu.au/>) platform. MCATS is a University of Melbourne (Faculty of Medicine, Dentistry and Health Sciences) initiative for supporting the conduct of health, clinical and basic research by providing access to biostatistics, health economics, and health informatics expertise.

At the Biostatistics Unit we collaborate on numerous clinical and epidemiological studies, in particular, studies with complex longitudinal or spatial data structures. We lead research in the development, application and interpretation of sophisticated statistical methods, including modelling of longitudinal and correlated data from cohort studies and twin/family studies, and methods for handling missing or incomplete data within such studies.

Since 2012, our unit has co-lead, along with units at the Murdoch Childrens Research Institute and Monash University, the Victorian Centre for Biostatistics ([ViCBiostat](#)), a Centre of Research Excellence in Biostatistics funded by the NHMRC.

5.2 CENTRE FOR EPIDEMIOLOGY AND BIOSTATISTICS

The Centre for Epidemiology and Biostatistics (<http://mspgh.unimelb.edu.au/centres-institutes/centre-for-epidemiology-and-biostatistics>) is one of 4 Centres and an Institute that comprise the Melbourne School of Population and Global Health.

Our Centre's units include:

- i) Allergy and Lung Health
- ii) Australian Twin Registry
- iii) Biostatistics

- iv) Breast Cancer
- v) Colorectal Cancer
- vi) High Dimensional Analytics
- vii) Indigenous Epidemiology and Health
- viii) Male Health
- ix) Modelling and Simulation
- x) Sexual Health
- xi) Neuroepidemiology
- xii) Teaching and Learning

The Centre for Epidemiology and Biostatistics is at the forefront of a preventative health revolution. Big data, changing infectious diseases patterns and multi-disciplinary collaborations are transforming the ways public health disciplines are researched and taught. Our Centre aims to be a leader in this evolving environment.

Epidemiology and biostatistics provide solutions to global public health challenges that demand multi-disciplinary responses. Our Centre's approach to research, teaching, and research training reflects this reality. We combine deep expertise with a broad range and reach – through our nine units, and our active links to other renowned institutions. This ensures our researchers and graduates are ready to contribute to preventing and alleviating the world's common, debilitating and burdensome health issues.

5.3 THE MELBOURNE SCHOOL OF POPULATION AND GLOBAL HEALTH

The Melbourne School of Population Health (<http://mspgh.unimelb.edu.au/>) was established in the Faculty of Medicine, Dentistry and Health Sciences in 2001. It became the Melbourne School of Population and Global Health in 2013. Approximately 300 academic and professional staff work across the School and its partner agencies. The School's total budget is in excess of \$50m. There are approximately 120 higher degree research students (predominantly PhD).

The School aims to strengthen the understanding, capacity and services of society to meet population health needs and to improve the quality and equity of health care. It employs a population health framework that incorporates public health and preventative medicine, health promotion, clinical medicine and allied healthcare disciplines and an equity and evidence-based approach to health care and health policy. Its research programs aim to elucidate the genetic, environmental, social and economic determinants of health, and to focus on the evaluation of the health systems, programs and services that seek to prevent disease and injury and to promote health. The School provides research and professional development opportunities for medical undergraduates, postgraduates in a wide range of disciplines, clinicians in all sectors of the health care industry, scientists, professionals and leaders in population health.

The School is currently composed of four Centres, one Institute and two partnership units:

- Centre for Health Equity (CHE)
- Centre for Health Policy (CHP)
- Centre for Epidemiology and Biostatistics (CEB)
- Centre for Mental Health (CMH)
- The Nossal Institute for Global Health (NIGH)

- Vaccine and Immunisation Research Group (VIRGo)
- Global Burden of Disease Group

5.4 MELBOURNE MEDICAL SCHOOL

<http://www.medicine.unimelb.edu.au/>

The Melbourne Medical School (MMS) was established in 1862 and has a substantial international reputation for its leadership in teaching and training, health research, policy and practice. The MMS is committed to working with the communities we serve to improve health and advance health care. We will do this through our teaching, learning, research, clinical care and advocacy. The MMS is composed of eight clinical departments (General Practice, Medical Education, Medicine and Radiology, Obstetrics and Gynaecology, Paediatrics, Psychiatry, Rural Health and Surgery) which are embedded within clinical health services throughout metropolitan Melbourne and rural Victoria. The MMS delivers a suite of health related graduate programs including the Doctor of Medicine (MD), the first professional entry Masters level medical program in Australia. The Melbourne MD delivers a fresh approach to medical training and creates a new benchmark in 21st century medical education. The MMS is committed to improving the wellbeing of the community through the discovery and application of new knowledge. The research effort of the school is highly collaborative and spans basic to translational research and involves over 800 graduate researchers and 1000 academic staff. The MMS also actively participates in the public debate and advocacy around key health issues and policy based on our values of commitment, integrity, compassion, respect and service.

5.5 FACULTY OF MEDICINE, DENTISTRY AND HEALTH SCIENCES

www.mdhs.unimelb.edu.au

The Faculty of Medicine, Dentistry & Health Sciences has an enviable research record and is the University of Melbourne's largest faculty in terms of management of financial resources, employment of academic and professional staff, teaching of undergraduate and postgraduate (including research higher degree) students and the conduct of basic and applied research. The Faculty's annual revenue is \$628m with approximately 55% of this income related to research activities.

The Faculty has a student teaching load in excess of 8,500 equivalent full-time students including more than 1,300 research higher degree students. The Faculty has approximately 2,195 staff comprising 642 professional staff and 1,553 research and teaching staff.

The Faculty has appointed Australia's first Associate Dean (Indigenous Development) to lead the development and implementation of the Faculty's Reconciliation Action Plan (RAP), which will be aligned with the broader University – wide plan. To enable the Faculty to improve its Indigenous expertise knowledge base, the Faculty's RAP will address Indigenous employment, Indigenous student recruitment and retention, Indigenous cultural recognition and building partnerships with the Indigenous community as key areas of development.

5.6 THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The main campus in Parkville is

recognised as the hub of Australia's premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide-range of knowledge-based industries. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded.

Further information about working at The University of Melbourne is available at <http://about.unimelb.edu.au/careers>.

5.7 GROWING ESTEEM, THE MELBOURNE CURRICULUM AND RESEARCH AT MELBOURNE: ENSURING EXCELLENCE AND IMPACT TO 2025

Growing Esteem describes Melbourne's strategy to achieve its aspiration to be a public-spirited and internationally-engaged institution, highly regarded for making distinctive contributions to society in research and research training, learning and teaching, and engagement. <http://about.unimelb.edu.au/strategy-and-leadership>

The University is at the forefront of Australia's changing higher education system and offers a distinctive model of education known collectively as the Melbourne Curriculum. The new educational model, designed for an outstanding experience for all students, is based on six broad undergraduate programs followed by a graduate professional degree, research higher degree or entry directly into employment. The emphasis on academic breadth as well as disciplinary depth in the new degrees ensures that graduates will have the capacity to succeed in a world where knowledge boundaries are shifting and reforming to create new frontiers and challenges. In moving to the new model, the University is also aligning itself with the best of emerging European and Asian practice and well-established North American traditions.

The University's global aspirations seek to make significant contributions to major social, economic and environmental challenges. Accordingly, the University's research strategy *Research at Melbourne: Ensuring Excellence and Impact to 2025* aspires to a significant advancement in the excellence and impact of its research outputs. <http://research.unimelb.edu.au/our-research/research-at-melbourne>

The strategy recognises that as a public-spirited, research-intensive institution of the future, the University must strive to make a tangible impact in Australia and the world, working across disciplinary and sectoral boundaries and building deeper and more substantive engagement with industry, collaborators and partners. While cultivating the fundamental enabling disciplines through investigator-driven research, the University has adopted three grand challenges aspiring to solve some of the most difficult problems facing our world in the next century. These Grand Challenges include:

- ▶ Understanding our place and purpose – The place and purpose grand challenge centres on understanding all aspects of our national identity, with a focus on Australia's 'place' in the Asia-Pacific region and the world, and on our 'purpose' or mission to improve all dimensions of the human condition through our research.
- ▶ Fostering health and wellbeing – The health and wellbeing grand challenge focuses on building the scale and breadth of our capabilities in population and global health; on harnessing our contribution to the 'convergence revolution' of biomedical and health research, bringing together the life sciences, engineering and the physical

sciences; and on addressing the physical, mental and social aspects of wellbeing by looking beyond the traditional boundaries of biomedicine.

- ▶ Supporting sustainability and resilience – The sustainability and resilience grand challenge addresses the critical issues of climate change, water and food security, sustainable energy and designing resilient cities and regions. In addition to the technical aspects, this grand challenge considers the physical and social functioning of cities, connecting physical phenomena with lessons from our past, and the implications of the technical solutions for economies, living patterns and behaviours.

Essential to tackling these challenges, an outstanding faculty, high performing students, wide collaboration including internationally and deep partnerships with external parties form central components of Research at Melbourne: Ensuring Excellence and Impact to 2025.

5.8 GOVERNANCE

The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at <http://www.unimelb.edu.au/governance>