



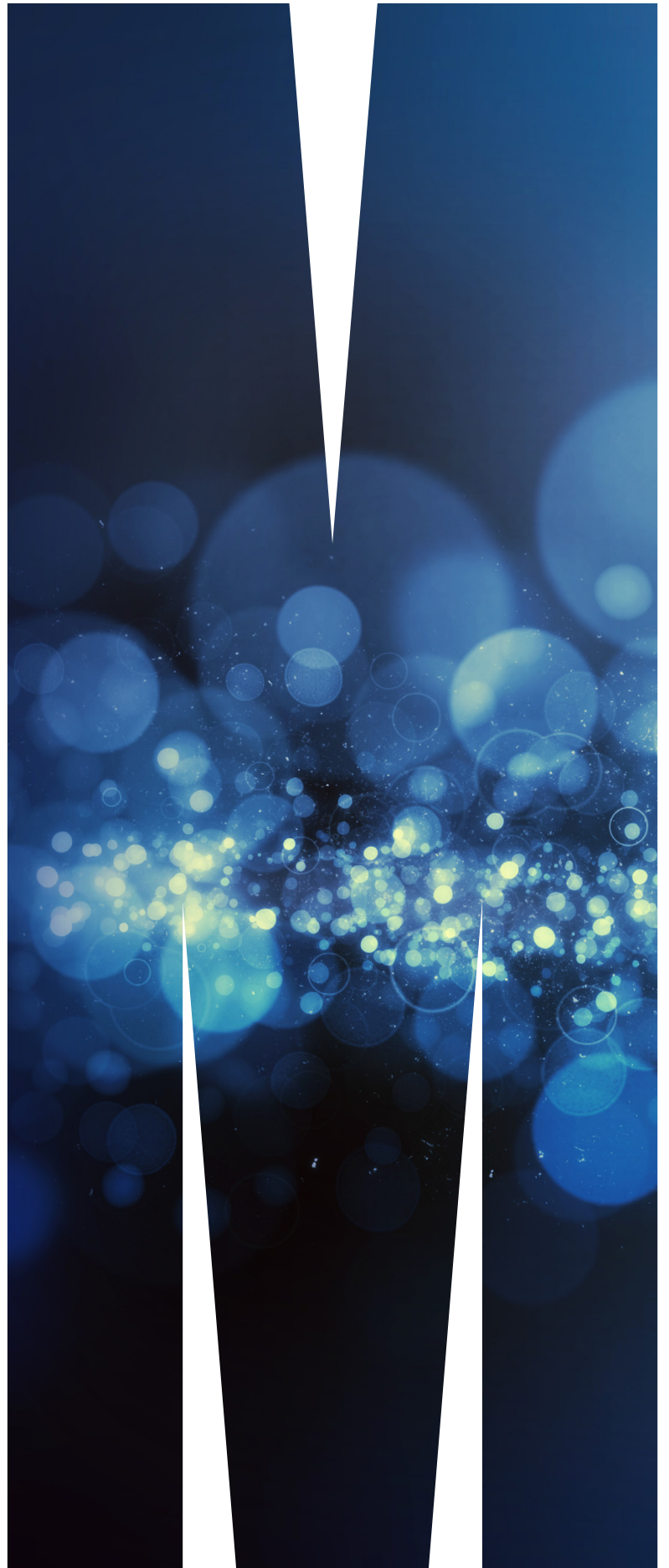
MONASH
University

MONASH
MEDICINE,
NURSING AND
HEALTH SCIENCES

HONOURS PROJECT BOOKLET

2018

SCHOOL OF PUBLIC
HEALTH AND PREVENTIVE
MEDICINE



AlfredHealth



Burnet Institute
Medical Research. Practical Action.



**GROUP
OF EIGHT
AUSTRALIA**



The School of Public Health and Preventive Medicine (SPHPM) is the second biggest School within the Faculty of Medicine, Nursing and Health Sciences at Monash University. The School provides a strong research environment with millions of dollars in research funding. The SPHPM is well known nationally and internationally for providing leadership in understanding, advancement, education and practical application of the discipline of public health issues and practices thereby improving health outcomes for the Australian community.

The SPHPM principal expertise lies in epidemiology (including clinical epidemiology), biostatistics, health economics, large scale clinical data-management and health services research.

Our Honours program offers a career path into many areas of public health and clinical research. The School runs the Honours program for the Bachelor of Health Science and Honours Streams for the Bachelor of Medical Science and the Bachelor of Biomedical Science.

For enquires regarding the SPHPM Honours Programs:

Bachelor of Medical Science (BMedSc) & Bachelor of Biomedical Science (BBiomedSc):

Professor Allen Cheng

SPHPM BMedSc & BBiomedSc
Honours Coordinator
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Professor Danny Liew

SPHPM BMedSc Honours Coordinator
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Sharon Gurry

SPHPM Senior Student Coordinator
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Bachelor of Health Science (BHSc):

Dr Charles Livingstone

BHSc (Hons) Course Coordinator
Email: charles.livingstone@monash.edu
Tel: 03 9903 1679

Christine McMahon

Undergraduate Courses Manager
Email: med-sphpm-ug@monash.edu
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How to use this index booklet

This index booklet lists the Honours Projects available for 2018. For further information about a particular research project, see the project description in the online database studentresearchprojects.med.monash.edu.au/

For further information regarding individual projects students should contact the nominated researcher associated with that project.

Making your application

Information regarding the individual programs, entry requirements and application process can be found at www.med.monash.edu/sphpm/honours/

Information regarding available scholarships can also be found at this website.

Clinical Epidemiology Division



Clinical Epidemiology is the application of epidemiological methods to the care of individual patients. The Division was formed in 2009 to bring together the School's research interests in cardiovascular disease prevention and therapeutics, respiratory and musculoskeletal epidemiology, infectious diseases and research synthesis and translation.

Circulating microRNAs as biomarkers for cardiovascular diseases

Supervisors: A/Prof Bing Wang
Email: bing.wang@monash.edu

Novel anti-fibrotic therapy for cardiovascular diseases

Supervisor: A/Prof Bing Wang
Email: bing.wang@monash.edu

Exposure assessment – using technology to inform best practice

Supervisors: Dr Fiona Barker, Dr Joanne O'Toole & Prof Karin Leder
Email: fiona.barker@monash.edu or joanne.otoole@monash.edu or karin.leder@monash.edu

The effect of body composition and physical activity on hip structure in a community-based population without clinical hip osteoarthritis

Supervisors: Dr Yuanyuan Wang, Prof Flavia Cicuttini & Dr Andrew Teichtahl
Email: yuanyuan.wang@monash.edu or Andrew.Teichtahl@monash.edu

The role of lifestyle factors on knee structure in a community-based population: a longitudinal study

Supervisors: Dr Yuanyuan Wang & Prof Flavia Cicuttini
Email: yuanyuan.wang@monash.edu

Obesity and knee joint health

Supervisors: Dr Yuanyuan Wang, Prof Flavia Cicuttini & Dr Andrew Teichtahl
Email: yuanyuan.wang@monash.edu or Andrew.Teichtahl@monash.edu

What is the role of body composition (obesity) in the development of musculoskeletal pain and disability?

Supervisors: Dr Donna Urquhart, Prof Flavia Cicuttini, A/Prof Anita Wluka
Email: Donna.Urquhart@monash.edu or anita.wluka@monash.edu

Does the structure of the spine matter in low back pain?

Supervisors: Dr Yuanyuan Wang, Prof Flavia Cicuttini & Dr Andrew Teichtahl
Email: yuanyuan.wang@monash.edu or andrew.teichtahl@monash.edu

MRI investigation of spinal and abdominal muscles in low back pain

Supervisors: Dr Donna Urquhart & Prof Flavia Cicuttini
Email: Donna.Urquhart@monash.edu

Muscle size and strength and the early structural changes of knee osteoarthritis

Supervisors: A/Prof Anita Wluka, Prof Flavia Cicuttini & Dr Yuanyuan Wang
Email: anita.wluka@monash.edu or yuanyuan.wang@monash.edu

Change in knee structure in healthy women and the relationship to bone health

Supervisors: A/Prof Anita Wluka, Dr Yuanyuan Wang & Prof Flavia Cicuttini,
Email: anita.wluka@monash.edu or yuanyuan.wang@monash.edu

Bone health and back pain

Supervisors: A/Prof Anita Wluka, Dr Donna Urquhart & Prof Flavia Cicuttini
Email: anita.wluka@monash.edu or donna.urquhart@monash.edu

Interrelationship among quadriceps muscle size, fat infiltration, strength, and body muscle mass in people with knee osteoarthritis

Supervisors: Dr Yuanyuan Wang, Prof Flavia Cicuttini & Dr Andrew Teichtahl
Email: yuanyuan.wang@monash.edu or Andrew.Teichtahl@monash.edu

Genetic and epigenetic changes to the norepinephrine transporter among blood donors experiencing a vasovagal reaction post donation

Supervisors: Dr Ben Coghlan & Dr Danielle Esler
Email: BCoghlan@redcrossblood.org.au

Genetic and epigenetic changes to the norepinephrine transporter among blood donors experiencing a vasovagal reaction post donation

Supervisors: Dr Danielle Esler & Dr Ben Coghlan
Email: DEsler@redcrossblood.org.au

Critical Care Research Division



The Critical Care Research Division investigates improvements to patient care from the pre-hospital phase through the emergency department and operating theatre to the intensive care unit [ICU]. Lead investigators manage large national and international trials to improve outcomes for critically ill patients with conditions as diverse as cardiac arrest, head injury and sepsis. We also monitor the overall improvements in critically ill patients through state and national databases. This has allowed benchmarking of clinical outcomes at a national and international level.

Patient Reported Outcome Measures in Patients with Venous Leg Ulcers

Supervisors: Dr Rasa Ruseckaite & Prof Carolina Weller
Email: rasa.ruseckaite@monash.edu

Evaluation of management and outcomes associated with subtrochanteric femur fractures at VOTOR associated hospitals

Supervisors: A/Prof Elton Edwards, A/Prof R Hau
Email: ere@bigpond.net.au or raphaelhau@hotmail.com

Outcomes and economics associated with distal femur fracture in the elderly

Supervisors: Dr Christina Ekegren, A/Prof Elton Edwards & A/Prof Raphael Hau
Email: christina.ekegren@monash.edu

Validation of chronic disease coding in orthopaedic trauma patients

Supervisor: Dr Christina Ekegren
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Crash characteristics and fault status in injured cyclists

Supervisors: Dr Ben Beck & Dr Christina Ekegren
Email: ben.beck@monash.edu

Geospatial mapping of major trauma

Supervisors: Dr Ben Beck, Prof Belinda Gabbe & Prof Karen Smith
Email: ben.beck@monash.edu

Severe traumatic brain injury in the elderly

Supervisors: Dr Ben Beck, Dr Sandy Braaf & Prof Peter Cameron
Email: ben.beck@monash.edu

Causes of death and the profile of injury in prehospital trauma deaths

Supervisors: Dr Ben Beck, Dr Sandy Braaf & Prof Peter Cameron
Email: ben.beck@monash.edu

Drug and alcohol use in non-traffic trauma deaths

Supervisors: Dr Ben Beck, Dr Jennifer Pilgrim
Email: ben.beck@monash.edu

Where are the best locations for public defibrillators in Victoria?

Supervisors: Kylie Dyson, Dr Karen Smith and Stephen Bernard
Email: kylie.dyson@monash.edu

The epidemiology of out-of-hospital cardiac arrests presenting in 'shockable' rhythms over time.

Supervisors: Kylie Dyson, Karen Smith and A/Prof Stephen Bernard
Email: kylie.dyson@monash.edu

Unravelling the complexity of fault attribution after transport injury

Supervisors: DrMelita Giummarra
Email: melita.giummarra@monash.edu

The epidemiological analysis of older adults with diabetes who have experienced falls

Supervisors: Anna Chapman; Claudia Meyer; Dr Joanne Enticott
Email: cmeyer@rdns.com.au, jenticott@rdns.com.au or joanne.enticott@monash.edu

Health Services Division



The Health Services Division is concerned with a diverse range of issues that influence the effective, efficient and ethical delivery of health services, locally and across the globe. The Division brings to these issues the rich multifasceted experience and perspectives of clinicians, epidemiologists, social scientists, psychologists, lawyers, philosophers, biostatisticians, economists and management scientists.

Perceptions of opt-out registry involvement

Supervisors: Dr Ingrid Hopper, Dr Emily Parker, Dr Susannah Ahern, & Prof John McNeil
Email: abdr@monash.edu

Epidemiology of a new disease entity: Breast Implant Associated – Anaplastic Large Cell Lymphoma

Supervisors: Dr Ingrid Hopper, Dr Emily Parker & Prof John McNeil
Email: abdr@monash.edu

Women's' experiences of medical tourism

Supervisors: Dr Ingrid Hopper, Dr Emily Parker & Prof John McNeil
Email: abdr@monash.edu

Assessing industry compliance and the educational impact of Therapeutic Goods Advertising Complaint Resolution Panel (CRP) determinations

Supervisors: Dr Basia Diug & Prof Ken Harvey
Email: basia.diug@monash.edu

The barriers and enablers to implementing falls prevention interventions in the acute hospital setting

Supervisors: Dr Darshini Ayton & Dr Renata Morello
Email: darshini.ayton@monash.edu

Cost of dementia study

Supervisors: Dr Renata Morello & Dr Darshini Ayton
Email: darshini.ayton@monash.edu

Examining participant reporting bias of hospital admissions in the RESPOND RCT

Supervisors: Dr Renata Morello & Dr Darshini Ayton
Email: darshini.ayton@monash.edu

Engaging with communities in health care

Supervisors: Micaela Drieberg
Email: Micaela.drieberg@monash.edu or micaela@3hills.com.au

Prevention Science Division



Disease prevention is a challenging area of medical science. There are many unanswered questions about the right balance between community-based programs and a targeted approach to those at high risk of disease. The cost effectiveness of many proposed interventions is unclear and, in some instances, long-term safety requires further study. Separating unwarranted enthusiasm from science is a major challenge for all researchers involved in this field. Experienced researchers in the division can access the full range of the clinical and public health skills required for active and successful evaluations.

Stressful events in later-life and their association with physical and mental well-being

Supervisors: Dr Joanne Ryan, Dr Robyn Woods, Prof Eldson Storey, Dr Carlene Britt
Email: joanne.ryan@monash.edu

Epigenetic biomarkers of depression and brain structural alterations

Supervisor: Dr. Joanne Ryan
Email: joanne.ryan@monash.edu

Is positive well-being associated with better cognitive function in later-life?

Supervisors: Dr Joanne Ryan, Prof Eldson Storey & Dr Carlene Britt
Email: joanne.ryan@monash.edu

Screening asymptomatic sexually transmitted infections among men who have sex with men in Australia

Supervisors: A/Prof Lei Zhang & Christopher Fairley
Email: lei.zhang1@monash.edu or CFairley@mshc.org.au

Impacts of scale-up of faecal occult blood testing on colorectal cancer in Australia

Supervisors: A/Prof Lei Zhang & Prof John McNeil
Email: lei.zhang1@monash.edu

The cost-effectiveness of tumour-based genetic screening for Lynch syndrome in the Australian population

Supervisors: A/Prof Lei Zhang & Dr Paul Lacaze
Email: lei.zhang1@monash.edu or paul.lacaze@monash.edu

Causes and temporal trend of mortality in Australia

Supervisors: A/Prof Lei Zhang & Prof John McNeil
Email: lei.zhang1@monash.edu

Can ceasing azithromycin use for sexually transmitted infection syndromes reduce the incidence of macrolide resistance developing in mycoplasma genitalium in men who have sex with men in Australia?

Supervisors: A/Prof Lei Zhang & Prof Christopher Fairley
Email: lei.zhang1@monash.edu or CFairley@mshc.org.au

Exploring the potential population impacts of pre-exposure prophylaxis for sexually transmitted infections in men who have sex with men in Australia

Supervisors: A/Prof Lei Zhang & Prof Christopher Fairley
Email: lei.zhang1@monash.edu or CFairley@mshc.org.au

Social Sciences Division



The Division of Social Sciences is a newly-formed group of SPHPM Units. Each aims to inform public health, policy, health services, and clinical practice through social science research and education. All are multidisciplinary teams of academics and postgraduate students.

Time to Pregnancy

Supervisor: Dr Sara Holton

Email: sara.holton@monash.edu

Men's fertility knowledge, attitudes and experiences: Findings from focus group discussions with men

Supervisor: Dr Karin Hammarberg

Email: karin.hammarberg@monash.edu

Burnet Institute



Burnet Institute

Medical Research. Practical Action.

The Burnet Institute combines medical research in the laboratory and at a population level with public health action and advocacy to address major health issues of disadvantaged populations in Australia and communities in the developing world. Three major health themes underpin the Burnet's work: Infectious diseases, maternal and child health, and young people's health.

How can countries reach HIV/AIDS elimination targets by 2030? Modelling for policy recommendations and operational guidelines

Supervisor: Prof David Wilson
Email: david.wilson@burnet.edu.au

Strategies to reduce malnutrition among children with allocative efficiency analyses

Supervisor: Dr. Madhura Killedar
Email: madhura.killedar@burnet.edu.au

Allocative Efficiency in Child Nutrition

Supervisor: Dr Ruth Pearson
Email: ruth.pearson@burnet.edu.au

Epidemic and economic modelling to optimize resources for global health

Supervisor: Prof David Wilson
Email: david.wilson@burnet.edu.au

Taking a punt: Exploring gambling attitudes and behaviours among a sample of young Victorians.

Supervisors: Dr Rebecca Jenkinson & Dr Megan Lim
Email: rebeccaj@burnet.edu.au

Exploring the similarities and differences of hepatitis C treatment and opiate substitution treatment therapy in people who inject drugs to inform increasing access HCV treatment in this population

Supervisors: Peter Higgs & Margaret Hellard
Email: peterh@burnet.edu.au

Investigating blood/blood product donation practices among Australian people who inject drugs (PWID)

Supervisors: Prof Margaret Hellard & Dr Brendan Quinn
Email: brendanq@burnet.edu.au

The outcomes of transitioning between prison and community for people with a history of injecting drug use

Supervisors: Prof Paul Dietze & A/Prof Mark Stoové
Email: pauld@burnet.edu.au

Modeling the syphilis epidemic in Victoria

Supervisors: Ms Carol El-Hayek & Dr Emma McBryde
Email: carol@burnet.edu.au

HIV transmission, diagnosis, and treatment in Australia: the HIV Cascade Sentinel Surveillance System

Supervisor: A/Prof Mark Stoové
Email: stoove@burnet.edu.au

Sexting, porn, and Tinder. An investigation of education and health promotion

Supervisor: Dr Megan Lim
Email: lim@burnet.edu.au

Alcohol advertising on public transport: level of exposure among children and young people

Supervisors: Dr Megan Lim & Dr Nick Scott
Email: lim@burnet.edu.au

Trends in STI testing and positivity in priority populations in Australia

Supervisors: Caroline van Gemert & Ms Carol El Hayek
Email: carol@burnet.edu.au

Sex, drugs and rock'n'roll: Young people and risk behaviours

Supervisors: Dr Megan Lim & Prof Margaret Hellard
Email: lim@burnet.edu.au

Low income as a barrier to opioid substitution therapy

Supervisors: Dr Peter Higgs & Prof Paul Dietze
Email: peterh@burnet.edu.au

Mapping public injecting drug use in urban Melbourne

Supervisors: Prof Paul Dietze, Dr Peter Higgs & Ms Rebecca Winter
Email: pauld@burnet.edu.au

The persistence of risk among people who inject drugs

Supervisors: Prof Paul Dietze & Dr Peter Higgs
Email: pauld@burnet.edu.au

Why do some people with hepatitis C continue to drink?

Supervisors: Prof Margaret Hellard & Dr Peter Higgs
Email: peterh@burnet.edu.au

Understanding and reducing the barriers to community based point of care hepatitis C testing in people who inject drugs

Supervisors: Prof Margaret Hellard & Dr Joseph Doyle
Email: hellard@burnet.edu.au

Examining hepatitis C reinfection following treatment among HIV co-infected gay and bisexual men

Supervisors: Dr Joseph Doyle & Prof Margaret Hellard,
Email: j.doyle@burnet.edu.au

Predicting and reducing hepatitis C reinfection following treatment among people who injecting drugs

Supervisors: Dr Joseph Doyle & Prof Margaret Hellard
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Eliminating hepatitis C infection in Victoria through treatment scale up: helping prescribers initiate treatment

Supervisors: Dr Joseph Doyle & Prof Margaret Hellard,
Email: j.doyle@burnet.edu.au

Qualitative analysis of reasons for insufficient levels of individual needle and syringe coverage.

Supervisors: Dr Peter Higgs & Dr Daniel O'Keefe
Email: djok@burnet.edu.au

Using simulation modelling to perform alcohol policy experiments

Supervisors: Dr Nick Scott & Dr Megan Lim
Email: nick.scott@burnet.edu.au

Hepatitis B screening and antiviral prophylaxis during immunosuppression: understanding current clinical practice and acceptability of clinical guidelines

Supervisors: Dr Joseph Doyle & Prof Anton Peleg
Email: j.doyle@burnet.edu.au

Understanding risky single occasion drinking and links to harms in a cohort of young Melburnians

Supervisors: Prof Paul Dietz
Email: pauld@burnet.edu.au

Hepatitis B virus infection and immunisation status among gay, bisexual and other men who have sex with men attending primary health clinics

Supervisor: Caroline van Gemert
Email: Caroline.vangemert@burnet.edu.au

Estimation of hepatitis B virus among pregnant women

Supervisor: Caroline van Gemert
Email: Caroline.vangemert@burnet.edu.au

Validation of name classification software for use in Australia to identify culturally and linguistically diverse communities

Supervisor: Caroline van Gemert
Email: Caroline.vangemert@burnet.edu.au

Understanding and responding to alcohol and other drug use among people from culturally and linguistically diverse communities

Supervisors: Dr. Danielle Horyniak & Dr. Peter Higgs
Email: danielle.horyniak@burnet.edu.au

Understanding the role of stigma as a barrier to alcohol and other drug and mental health help-seeking and care for people from culturally and linguistically diverse communities

Supervisors: Dr. Danielle Horyniak, Dr. Peter Higgs & Dr Charles Livingstone
Email: danielle.horyniak@burnet.edu.au

#cleaneating #detox : assessing the quality of nutrition advice in popular social media trends

Supervisors: Dr Megan Lim & Dr Karen Klassen
Email: megan.lim@burnet.edu.au

Apps for Harm Reduction: Help or Hindrance?

Supervisors: Dr. Danielle Horyniak, Dr. Megan Lim & Prof. Paul Dietze
Email: danielle.horyniak@burnet.edu.au

Investigating the limitations associated with the snowball model "Bring your friends"/ "Treat your friends" in context of the TAP study.

Supervisors: Dr Peter Higgs; Dr Rachel Sacks-Davis
Email: peter.higgs@burnet.edu.au or rachel.sacks-davis@burnet.edu.au



Further Information

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