

New Fellows 2020

Welcome from the President

On behalf of the Council and Fellowship of the Australian Academy of Health and Medical Sciences, it gives me great pleasure to warmly welcome this year's newly elected Fellows to the Academy.

Fellowship is granted in recognition of a significant and sustained contribution to health and medical research, demonstrating leadership on both the Australian and international stage. The breadth and depth of talent among the new Fellows that we elect each year is testimony to the outstanding contributions that Australian scientists and health professionals continue to make to the global efforts to prevent and manage disease, and to improve the health of the community.

As a Fellowship, we aim to inspire and mentor the next generation of researchers, provide high quality expert advice to government, and contribute knowledge to inform discussions on health and health policy. I am delighted to congratulate each of our new Fellows and trust they will play an active role in the affairs of the Academy, and help the Academy to achieve these important goals.

Arguid Scheffen

Professor Ingrid Scheffer AO FRS FAA PresAHMS President



Australian Academy *of* Health and Medical Sciences

The Australian Academy of Health and Medical Sciences is the impartial, authoritative, cross-sector voice of health and medical science in Australia. We advance health and medical research in Australia and its translation into benefits for all, by fostering leadership within our sector, providing expert advice to decision makers, and engaging patients and the public.

We are an independent, interdisciplinary body of Fellows, who are elected by their peers for their outstanding achievements and exceptional contributions to health and medical science in Australia. Collectively, they are a representative and independent voice, through which we engage with the community, industry and governments.

The Academy is uniquely positioned to convene cross-sector stakeholders from across Australia to address the most pressing health challenges facing society. We focus on the development of future generations of health and medical researchers, on providing independent advice to government and others on issues relating to evidence based medical practice and medical researchers, and on providing a forum for discussion on progress in medical research with an emphasis on translation of research into practice.

The Academy is registered with the Australian Charities and Not-for-profits' Commission (ACNC) and is endorsed as a deductible gift recipient.

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ORDINARY FELLOWS



Distinguished Professor David Adams

Honours and Recognition: FAHMS Primary Position: CEO and Executive Director Institute: Illawarra Health and Medical Research Institute State: New South Wales

Distinguished Professor David Adams is internationally recognised as a leader in membrane physiology and neuroscience research, specifically the study of membrane receptor and ion channel function using molecular biological and electrophysiological recording techniques. His research over the last twenty years has characterised novel peptides isolated from the venom of cone snails as probes for ion channel function, and as potential drugs for the treatment of chronic neuropathic and visceral pain.

Distinguished Professor Adams' discovery of analgesic conotoxins targeting G protein-coupled receptors that modulate voltage-gated calcium channels provides a lead for the development of non-opioid drugs for pain treatment.

Professor Lisa Askie

Honours and Recognition: FAHMS Primary Position: Methods Scientist Institute: World Health Organization State: Geneva, Switzerland



Professor Lisa Askie is a neonatal nurse and midwife trained in epidemiology, who has led some of the most important practice-changing research projects in perinatology over the past 20 years. Her work has elucidated the optimal oxygen targets and cord management strategies at birth for preterm infants, the best prevention therapies for women at risk of pre-eclampsia, and whether new ventilation technologies are any more effective than conventional ones. Professor Askie's experience has led to significant

international collaborations of clinical trial investigators, who share their data to undertake individual participant data meta-analyses.

Professor Askie has recently taken a new position at the World Health Organization in Geneva, Switzerland, where she will oversee and improve the quality of the medical science underpinning the advice and regulations WHO produces globally.



Professor Melanie Bahlo

Honours and Recognition: FAHMS Primary Position: Theme Leader and Laboratory Head Institute: The Walter and Eliza Hall Institute of Medical Research

State: Victoria

Professor Melanie Bahlo is a cross-disciplinary researcher

at the intersection of statistics and genetics. She has developed innovative methods and software for genetic analysis, working closely with clinicians and geneticists to gain insights into complex genetics data. Her work has helped to understand the genetic architecture of several complex diseases, in particular the causes of neurogenic disorders, where her identification of ~20 novel genes has enabled genetic diagnosis of patients worldwide.

Professor Bahlo is the 'Healthy Development and Ageing' Theme Leader at The Walter and Eliza Hall Institute, and winner of the AAS Moran Medal and the Genetics Society of Australia's Ross Crozier medal.

Professor Julie Bernhardt

Honours and Recognition: AM FAHMS Primary Position: Deputy Director Institute: The Florey Institute of Neuroscience and Mental Health



State: Victoria

Professor Julie Bernhardt is a Co-Head of the Stroke Theme at the Florey Institute of Neuroscience and Mental Health, a clinical scientist and highest ranked researcher in the field of stroke rehabilitation. She has established new standards and global collaborative partnerships for stroke rehabilitation trials, including completing the first landmark international trial in acute stroke rehabilitation in 56 sites in five countries.

In addition to her clinical research excellence, Professor Bernhardt has driven numerous initiatives to improve the retention and career advancement of women in health and medical sciences.



Professor Nicholas Buckley

Honours and Recognition: FAHMS Primary Position: Professor of Clinical Pharmacology Institute: The University of Sydney State: New South Wales

Professor Nicholas Buckley's research focusses on toxicology and adverse effects of drugs, pesticides and

snakebite using a range of methods including systematic reviews, clinical trials, drug development, public health interventions, pharmaco-epidemiology and policy analysis, leading to over 300 articles in refereed journals.

Many of Professor Buckley's research findings have translated into changed practice and improved outcomes, aided by key leadership roles: Chair of the Australian Medicines Handbook Editorial Advisory board, Chair of Toxicology and Toxinology Australian Therapeutic Guidelines panel, Membership of the Advisory Committee on Safety of Medicines (2009-2016) and by being a consultant Clinical Toxicologist to several Australian Poisons Information Centres.

Professor Peter Cistulli

Honours and Recognition: FAHMS Primary Position: ResMed Chair in Sleep Medicine Institute: The University of Sydney State: New South Wales



Professor Peter Cistulli is recognised nationally and internationally as a clinical and research leader in the field of Respiratory and Sleep Medicine. He has made major contributions to the understanding of the causes and treatment of common sleep disorders, such as Obstructive Sleep Apnoea (OSA). His pioneering work on novel therapies, and particularly oral appliances for the treatment of OSA, has changed clinical practice in the field and has contributed to the development of a new interdisciplinary field of Dental Sleep Medicine, bridging medicine and dentistry.

Through distinguished contribution to clinical practice, research and teaching, Professor Cistulli has advanced his field.



Professor Susan Clark

Honours and Recognition: FAA FAHMS Primary Position: Research Director, Genomics and Epigenetics Division Institute: Garvan Institute of Medical Research State: New South Wales

Professor Susan Clark is a worldwide pioneer in the

field of cancer epigenetics. Her research revolutionised the field through her pivotal contribution to advancements in new technologies for profiling DNA methylation changes in early development and cancer. Her current research involves understanding the 3D epigenetic landscape of large-scale domains in cancer, and developing new genome-wide sequencing and bioinformatic protocols to map DNA methylation, histone modifications and regulatory RNA profiles.

Professor Clark's team has recently demonstrated that epigenetic changes in cancer encompass large genome-wide domains, resulting in global and coordinated gene silencing and activation, which provide new insights for disease diagnosis and treatments.

Professor Ian Constable

Honours and Recognition: AO FAHMS Primary Position: Professor of Ophthalmology Institute: Lions Eye Institute State: Western Australia



Professor lan Constable is an internationally recognised clinical and research ophthalmologist. As the Founding Director of the Lions Eye Institute, he created a not-for-profit centre of excellence that combines world-class scientific research into the prevention of blindness with the highest level of eye care delivery. He has trained and mentored almost 100 clinical and research Fellows from all over the world and has provided an environment to conduct research at the highest international standards.

Professor Constable's work has been instrumental in several significant developments in ophthalmology, including an artificial cornea and a first in human gene therapy trial for exudative Macular Degeneration.



Professor Sarah-Jane Dawson

Honours and Recognition: FAHMS Primary Position: Consultant Medical Oncologist and Group Leader Institute: Peter MacCallum Cancer Centre State: Victoria

Professor Sarah-Jane Dawson is a clinician scientist

who has consistently demonstrated excellence, leadership and dedicated service to health and medical research in Australia. Professor Dawson's research has pioneered fundamental advances in the clinical application of cancer genomics and the development of personalised biomarker approaches using circulating tumour DNA. This body of work has led to the rapid expansion of research in this field and established a new paradigm for molecular disease monitoring in cancer. Professor Dawson continues to demonstrate an ongoing commitment to advancing healthcare through the translation of her discoveries into the clinical arena to improve survival outcomes for cancer patients.

Professor Andrew Forbes

Honours and Recognition: FAHMS Primary Position: Head of Division of Research Methodology and Biostatistics Unit

Institute: Monash University

State: Victoria



Professor Andrew Forbes has an international reputation for leadership in biostatistics, stemming from his development and innovation in statistical methods to solve practical issues in health and medical research studies, as well as collaboration on major practice-changing research in substantive clinical areas. He chairs the pre-eminent multi-university national training program in biostatistics and has major roles with the Australian Clinical Trials Alliance (ACTA) in promulgating innovative clinical trial design methodologies.

Professor Forbes heads the nation's largest biostatistics group and for over a decade has been an Editorial Board member of one of the leading international journals, *Statistical Methods in Medical Research*.



Professor Alistair Forrest

Honours and Recognition: FAHMS Primary Position: Head of Systems Biology and Genomics Institute: The University of Western Australia State: Western Australia

Professor Alistair Forrest is an award-winning systems biologist whose leadership and ability to form and manage

large international collaborations has led to enormous progress in our understanding of human disease. Professor Forrest applies systems-wide analyses and broad genomic surveys to deliver new, unbiased, data-driven insights into disease. His research is revealing the cellular makeup of tumours and predicting how interactions between tumour and stromal cells influence cancer outcomes.

Professor Forrest is identifying and incorporating novel genes and regulatory regions into diagnostic screening for genetic disease and identifying long non-coding RNAs with likely roles in human disease.

Professor Lin Fritschi

Honours and Recognition: FAHMS Primary Position: John Curtin Distinguished Professor of Epidemiology

Institute: Curtin University

State: Western Australia

Professor Lin Fritschi is a cancer epidemiologist and

public health physician with specific expertise in occupational causes of cancer. Her research revolves around two themes: identifying occupational causes of cancer and improving methods for assessing occupational exposure in epidemiological studies. She has a substantial track record of publications, grants and impact on policy, has successfully mentored and trained junior researchers and has developed key collaborations nationally and internationally.

Professor Fritschi has developed a new online resource for assessing occupational exposure (OccIDEAS), which has been used to assess exposure in studies in Australia, Bhutan, Malaysia, China, the UK and in current studies in NZ and across the EU.



Professor Mary Galea

Honours and Recognition: AM FAHMS Primary Position: Professorial Fellow Institute: The University of Melbourne State: Victoria

Professor Mary Galea's basic and clinical research program has contributed substantially to the global quest

to understand how to promote repair, regeneration and recovery of the nervous system after injury. Her seminal contributions to understanding the organisation and response to injury of the corticospinal pathways in animal models have been translated into the development of novel interventions to promote functional recovery after spinal cord injury and other nervous system disorders.

Professor Galea built research capacity in physiotherapy at a time when research in this discipline was sparse. Her sustained academic leadership in her profession has been acknowledged with the award of an Order of Australia.

Scientia Professor Guy Marks

Honours and Recognition: FAHMS Primary Position: Scientia Professor Institute: UNSW Sydney State: New South Wales



Professor Guy Marks is a world-leading respiratory physician and epidemiologist, whose outstanding contributions to the fields of asthma, chronic lung disease, tuberculosis (TB) and

air pollution have transformed the national and global responses to these health problems. His sustained research at the Woolcock Institute of Medical Research has been recognised through major awards from the NHMRC, the Thoracic Society, the Ingham Institute and UNSW Sydney.

Professor Marks has made important contributions to training and policy development in lung health and TB control in Australia and internationally. His sustained leadership within the International Union Against TB and Lung Diseases led to his appointment as President in 2019.



Professor Jennifer Martin

Honours and Recognition: FAHMS Primary Position: Chair of Clinical Pharmacology Institute: The University of Newcastle State: New South Wales

Professor Jennifer Martin is a dual-trained clinical pharmacologist and physician based in Newcastle. Through

combining her clinical practice with a strong program of research, she has driven clinical impact through knowledge translation and informing effective government policy and regulation with evidence-based research. Her research spans the full translational pathway, from discovery and animal development work, to Phase I-IV clinical trials, and implementation of research into the therapeutic setting.

Professor Martin is a recognised leader in her field and an expert advisor to the health and pharmaceutical sector, industry and various governments, particularly in the area of drug development and pharmaceutical regulation.

Professor Kirsten McCaffery

Honours and Recognition: FAHMS Primary Position: NHMRC Principal Research Fellow Institute: The University of Sydney State: New South Wales Professor Kirsten McCaffery is a high productive



behavioural scientist with exceptional research output in public health, with over 230 publications on national and international policy and practice.

Professor McCaffery has demonstrated leadership in the establishment of the Sydney Health Literacy Lab, in Wiser Healthcare, and as Director of Research at the University of Sydney School of Public Health. Her work has had sustained contributions to policy and practice in the areas of cancer screening, health literacy and overdiagnosis, and has attracted significant media attention to promote understanding of medical science in the community.



Professor Hylton Menz

Honours and Recognition: FAHMS Primary Position: NHMRC Senior Research Fellow Institute: La Trobe University State: Victoria Professor Hylton Menz is a podiatrist and NHMRC F

Professor Hylton Menz is a podiatrist and NHMRC Fellow. His broad research disciplines are human movement,

rehabilitation and rheumatology, with a particular focus on musculoskeletal foot problems in older people. Professor Menz has published 297 papers in podiatry, gerontology, rheumatology and biomechanics journals and has attracted over \$10m in research funding.

Professor Menz has made significant contributions to the understanding of the prevalence, risk factors and impact of foot disorders, their underlying pathophysiology, and their optimum non-surgical management using exercise, therapeutic footwear and orthotic interventions.

Distinguished Professor Dianne Nicol

Honours and Recognition: FAHMS Primary Position: Professor of Law Institute: University of Tasmania State: Tasmania



Dianne Nicol is a Distinguished Professor of Law and

Director of the Centre for Law and Genetics at the University of Tasmania, and a Fellow of the Australian Academy of Law. Her research intersects law, ethics, health and medicine. She has postgraduate qualifications in science and law and uses this expertise in her research.

Distinguished Professor Nicol's contributions to health and medicine are recognised in national policy arenas, through such appointments as: Chair, NHMRC Embyro Research Licencing Committee; Member, Mitochondrial Donation Expert Working Committee; Member, Genomics Mission Expert Advisory Committee; and Member, Australian Advisory Council on Medicinal Use of Cannabis.



Professor Anton Peleg

Honours and Recognition: FAHMS Primary Position: Professor and Director of Department of Infectious Diseases Institute: Monash University State: Victoria

Professor Anton Peleg is a leading physician-scientist in

Infectious Diseases who excels across the full research continuum, from fundamental laboratory research to clinical translation. He is an internationally recognised expert in antimicrobial resistance, and engages with government, industry and the community to influence antimicrobial use, targeting hospitals and nursing homes. His contributions to infection-immunity research, clinical trials, prevention of outbreaks, device infections and microbial genomics have been stellar and sustained.

Professor Peleg has built interdisciplinary collaborations addressing global health issues that have impacted policy and practice through guidelines and trials, and he is an outstanding mentor, fostering a large cadre of emerging clinician-scientist leaders.

Professor Roy Robins-Browne

Honours and Recognition: AO FAHMS Primary Position: Laboratory Head Institute: The Doherty Institute State: Victoria



Professor Roy Robins-Browne is a medical microbiologist who has made seminal contributions to the field through research and teaching. His research has improved fundamental understanding and clinical management of the diarrhoea-associated bacterial pathogens, *Escherichia coli* and *Yersinia enterocolitica*, as well as other bacteria that infect humans. His teaching has guided a generation of medical and bioscience students.

Professor Robins-Browne's work has provided new insights into the mechanisms of disease and host pathogen interactions. Practical applications of his research include novel diagnostic methods, widely used therapeutics, research reagents, and new strategies to treat and prevent bacterial infections.



Professor Andrew Steer

Honours and Recognition: FAHMS Primary Position: Director, Infection and Immunity Theme; Group Leader, Tropical Diseases Research Group Institute: Murdoch Children's Research Institute

State: Victoria

Professor Andrew Steer is a paediatric infectious diseases physician and Director of the Infection and Immunity Theme at the Murdoch Children's Research Institute. He is an international authority on tropical infectious diseases. His research has established global community-based treatment programs for tropical skin infections, influenced vaccine design for group A streptococcal disease, and introduced diagnostic technologies and control programs for rheumatic heart disease.

Professor Steer is a global and national leader in these fields, evidenced by scientific leadership roles, including as Chair of the International Alliance for the Control of Scabies, and Co-Director of the Australian Strep A Vaccine Initiative.

Professor Timothy Stinear

Honours and Recognition: FAHMS Primary Position: Principal Research Fellow Institute: The University of Melbourne State: Victoria



Professor Tim Stinear is a distinguished microbiologist who has revolutionised our understanding of important

bacterial infectious diseases by the use of cutting-edge genomic technologies. His fundamental research has led to new diagnostic tests and new insights on how infections spread in our hospitals and how bacteria are evading our most powerful antibiotics. He is a Fellow of the Australian Society for Microbiology.

Professor Stinear is one of the world's foremost authorities on the neglected tropical disease, *Buruli ulcer*, and he is leading a ground-breaking intervention trial here in Australia to stop its spread.



Professor Carolyn Sue

Honours and Recognition: AM FAHMS Primary Position: Executive Director Institute: Kolling Institute State: New South Wales

Professor Carolyn Sue is a neurologist and internationally regarded for her work in Parkinson's disease and

mitochondrial disease. She is Australia's leading mitochondrial disease clinician, running the country's largest tertiary referral clinic and benchmarking mitochondrial disease practice. She was awarded a Member of the Order of Australia for her significant service to medicine, particularly mitochondrial disease.

Professor Sue's discovery research has led to improved diagnosis and treatment of mitochondrial diseases and identified the prevalence of mitochondrial DNA mutations in the Australian community. As an esteemed health and medical researcher, she was appointed Executive Director of the Kolling Institute in 2019.

Professor Merlin Thomas

Honours and Recognition: FAHMS Primary Position: Program Leader Institute: Monash University State: Victoria



Professor Merlin Thomas is an internationally renowned clinician scientist in diabetic kidney disease. His translation

research spans basic biochemistry and biology to epidemiology and clinical trials. He is also a sought-after speaker, teacher and best-selling author. He has an exceptional track record of productivity, publishing in journals including the *Journal of Clinical Investigation, Circulation Research and Diabetes*. His discovery work has led to patent applications that he has translated into early-phase commercial development.

Professor Thomas has received the Eric Susman Award from the RACP, TJ Neal Award from the Australian and New Zealand Society of Nephrology and the Millennium Award from Diabetes Australia.



Professor Carola Vinuesa

Honours and Recognition: FAA FAHMS Primary Position: Professor of Immunology and Head, Department of Immunology and Infectious Disease Institute: Australian National University State: Australian Capital Territory

Professor Carola Vinuesa's research has contributed to understanding the pathogenesis of autoimmune diseases. She defined the nature of T-cell help for B-cells, establishing that follicular helper T (TFH) cells, rather than TH2-cells, are required for antibody production. She also discovered that TFH dysregulation causes autoimmunity, and that TFH cell function is modulated by a unique subset of regulatory T-cells: TFR cells. More recently she uncovered an important role for rare coding gene variants in human systemic autoimmunity.

Professor Vinuesa's TFH/TFR discoveries are being translated into improving vaccination, eliminating HIV reservoirs, preventing transplant rejection, and treating autoimmunity, immunodeficiency, cancer and allergies.

Professor Steve Vucic

Honours and Recognition: FAHMS Primary Position: Director of Neurophysiology Institute: Westmead Hospital State: New South Wales



Professor Steve Vucic is a clinical academic and internationally recognised researcher in the field of neuroscience with an emphasis on understanding amyotrophic lateral sclerosis (ALS) pathogenesis. His key discoveries relating to identification of "cortical hyperexcitability" as an important pathophysiological mechanism in ALS have transformed the understanding of ALS, resulted in novel therapeutic approaches and led to development of pharmacodynamic biomarkers. In addition, a much-needed diagnostic investigation was developed for ALS, termed threshold tracking transcranial magnetic stimulation (TMS), enabling earlier diagnosis and thereby recruitment into clinical trials.

Professor Vucic has published and presented extensively and has received national and international accolades for his research.



Professor Andrew Wilks

Honours and Recognition: FTSE FAHMS Primary Position: Executive Chairman, SYNthesis med chem; CEO, SYNthesis Research; CEO, Catalyst Tx

Institute: SYNthesis Research

State: Victoria

Professor Andrew Wilks is an accomplished academic scientist who worked at the LICR (Melbourne) between 1983 and 1997 and made transformative discoveries in the signal transduction field, as well as in neurogenesis and angiogenesis. He has completed a rare 'trifecta' – discovering and patenting a number of important drug discovery targets (e.g. JAK1 and JAK2); founding one of Australia's most successful biotech companies, Cytopia; and co-inventing and leading the team that delivered the JAK inhibitor, Momelotinib.

Co-founder and CEO of the SYNthesis Group, Professor Wilks is a serial entrepreneur and founder or co-founder of ten companies in the drug discovery arena.

Professor Naomi Wray

Honours and Recognition: FAA FAHMS Primary Position: Professorial Research Fellow Institute: The University of Queensland State: Queensland



Professor Naomi Wray is a leading complex trait geneticist. She has developed quantitative genetic methods based upon DNA marker data to understand complex genetic diseases in human populations and to predict genetic risk. In applied research, her primary focus is disorders of the brain.

Professor Wray is recognised internationally for her leadership in the Psychiatric Genomics Consortium and particularly for analyses that unequivocally demonstrate the polygenic and shared genetic architecture of psychiatric disorders. She is recognised nationally for her leadership in establishing the sporadic ALS systems Australia genomics consortium (SALSA).

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