



Life as a Clinician-Scientist

NEW SOUTH WALES
Symposium



Australian Academy
of Health and
Medical Sciences

Kerry Packer Education Centre **Saturday 15 April 2023**

Thank you to our sponsors

This event is part of the *Life as a Clinician-Scientist* program run by the Australian Academy of Health and Medical Sciences. This program is unique in Australia – inspiring, encouraging and supporting individuals across the country to pursue research careers in the health and medical sciences.

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Welcome to Life as a Clinician-Scientist

We are delighted to welcome you to our *Life as a Clinician-Scientist* symposium.

Our speakers will share their unique journeys that have led to a rich and rewarding career, filled with challenges and discovery.

Why consider life as a clinician-scientist?

Clinician-scientists are uniquely placed to solve the most challenging health problems facing our modern society. They work at the cutting edge of health, combining clinical skills with trailblazing research. They lead the discovery and development of new treatments, reveal insights into health and disease, and their work significantly impacts patient care.

The diverse and exciting careers that you will hear about today involve collaboration with multidisciplinary teams including clinicians, scientists, consumers and policy makers. While the challenges in medical research appear to be increasing, clinician-scientist careers remain rewarding and offer you the opportunity to create your own niche and pursue your passions.

The Australian Academy of Health and Medical Sciences was established in 2014 to provide an impartial and authoritative voice for health, informed by the highest quality evidence and expert advice from the best and brightest in health and medical research. One of the Academy's missions is to grow and mentor Australia's future generations of clinician-scientists and leaders in health and medical science.

Today's symposium aims to do just that. We are honoured that such a group of exemplary clinician-scientists, at different stages of their careers, have generously agreed to share their wisdom and expertise. We are also very grateful to our event sponsors for helping to facilitate this symposium highlighting these fascinating careers.

We encourage you to join the Twitter conversation by tagging the @AAHMS_Health handle. We hope the AAHMS New South Wales symposium, *Life as a Clinician-Scientist*, inspires you to consider becoming a clinician-scientist in the years ahead.

We would like to thank all of our sponsors who make *Life as a Clinician-Scientist* program possible, in particular for this event – platinum sponsors, Centenary Institute, UNSW Sydney, the University of Sydney, and gold sponsor Australian National University.

 @AAHMS_Health



Australian Academy
of Health and
Medical Sciences


About the Academy


The Australian Academy of Health and Medical Sciences is the independent expert voice for health and medical sciences in Australia. We advance research and innovation in Australia to improve everyone's health.

We are the nation's Learned Academy for the health and medical sciences: an interdisciplinary body of Fellows, who are Australia's most influential researchers in health and medicine. Each Fellow is elected by their peers for their outstanding contributions to the health and medical sciences in their respective fields.

The broad experience of our Fellows ensures that our advice is independent, expert and evidence-based. We use our knowledge and networks to drive change and provide leadership to ensure the most pressing health issues facing society can be addressed for the benefit of all.

We actively engage with the community to raise awareness and ensure that everyone can participate in, and benefit from, health and medical research. Through our work, we seek to reduce health inequities in Australia.

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9.00 am	REGISTRATION
SESSION 1	WHERE MEDICINE MEETS SCIENCE – WHAT IS A CLINICIAN-SCIENTIST? <i>Chaired by Professor Elizabeth Elliott AM FAHMS</i>
9.30am	Welcome Professor Elizabeth Elliott AM FAHMS Professor for Paediatrics and Child Health, The University of Sydney Fellow and Council member, Australian Academy of Health and Medical Sciences Jacinta Wong Year 4 Medical Student, Sydney Medical School
9.40am	Professor Cheryl Jones FAHMS Dean and Head of School, Sydney Medical School, The University of Sydney
10.20am	Professor Warwick Britton AO FAHMS Research Director, Sydney Local Health District and RPAH Head, Tuberculosis Research Program, Centenary Institute
11.00am	MORNING TEA
SESSION 2	THE HOW, THE WHAT AND THE WHY OF RESEARCH <i>Chaired by Jacinta Wong, Year 4 Medical Student, Sydney Medical School</i>
11.30am	Professor Nicholas Fisk AM FAHMS Deputy Vice-Chancellor (Research), UNSW Sydney
12.05pm	Associate Professor Sue Woolfenden Director of Community Paediatrics, Sydney Local Health District, UNSW Sydney
12.40pm	LUNCH <i>Spot mentoring sessions</i>
SESSION 3	LIFE AS A CLINICIAN-SCIENTIST – MAKING AN IMPACT
1.40pm	Professor Christopher Maher FAHMS Director, Institute for Musculoskeletal Health, The University of Sydney
SESSION 4	PANEL DISCUSSION – CHALLENGES ALONG THE WAY
2.15pm	Associate Professor Justin Skowno Paediatric Anaesthetist and Researcher, Children's Hospital at Westmead Dr Noemi Fuentes-Bolanos Paediatric Oncologist and Clinical Cancer Geneticist, Kids Cancer Centre Researcher, Children's Cancer Institute Professor Natasha Rogers Head of Transplantation/Head, Kidney Injury Group, the Westmead Institute Dr Carlos Garcia-Esperon Director, Hunter Stroke Services, John Hunter Hospital
3.00pm	CLOSING REMARKS <i>Professor Elizabeth Elliott AM FAHMS</i>

Speakers



Professor Elizabeth Elliott AM FAHMS

*Professor for Paediatrics
and Child Health,
University of Sydney*

Professor Elizabeth Elliott AM FAHMS is a Distinguished Professor in Paediatrics and Child Health at the University of Sydney and Consultant Paediatrician at the Sydney Children's Hospitals Network, Westmead.

She is dedicated to advancing human rights, health and quality of life for ill and disadvantaged children in Australia and beyond, through education, research, clinical care and advocacy. Specific examples include promoting the health and human rights of children disabled by rare diseases, Fetal Alcohol Spectrum Disorder (FASD) and vaccine-preventable and other infectious diseases; Aboriginal and Torres Strait Islander children, particularly those in remote Australia; Asylum Seeker and Refugee Children, particularly in Immigration detention; children receiving Cochlear implants; Children with Female Genital Mutilation or Cutting; and Children living in developing countries in our region, particularly Vietnam.

Since 2007 she's held two NHMRC Practitioner Fellowships and a Medical Research Futures Fund Next Generation Fellowship. She is an elected Fellow of the Royal Society of NSW and recipient of the Society's James Cook Medal; a member of the AAHMS Council and Policy Advice Committee; Chair of the Australian government's FASD Advisory Group; and Chair of the Gender Equity Committee for the Royal Australasian College of Physicians.



Professor Cheryl Jones
FAHMS

*Dean and Head of School,
Sydney Medical School,
University of Sydney*

Professor Cheryl Jones is a paediatric infectious diseases physician and clinician-scientist, awarded educator, higher degree research supervisor and Dean and Head of School of Sydney Medical School. She is a world authority on childhood infectious diseases, particularly brain infections and mother-to-child transmitted infections.

She is a Fellow of the Australian Academy of Health and Medical Sciences (FAHMS) in recognition of her leadership of internationally recognised research networks, including the Australian Childhood Encephalitis (ACE) study. She was made a life member of the Australian Society for Infectious Diseases in 2022 for her contributions to infectious diseases and to the Society. Professor Jones has co-authored diagnostic and management guidelines, which have changed global policy and practice. She has obtained over \$32 million in peer reviewed funding including three NHMRC Centres for Research excellence and has over 170 peer reviewed publications.

She has held multiple senior executive, board roles and statutory authorities, and is a current board member of ATAGI, Ramsay Health Research Foundation, and the RACP College Council.



Professor Warwick Britton
AO FAHMS

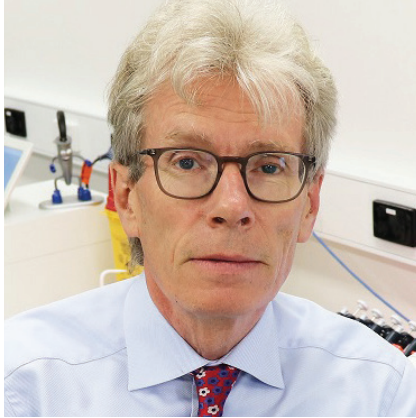
*Research Director,
Sydney Local Health District and RPAH*

*Head,
Tuberculosis Research Program,
Centenary Institute*

Professor Warwick Britton is a clinical scientist and immunologist who is head of the Tuberculosis Research Program at the Centenary Institute, Research Director for Sydney Local Health District and Emeritus Professor at The University of Sydney.

He has longstanding interests in the immunology of mycobacterial infections, including the balance of protective immunity and inflammatory damage in the lung, and the development novel vaccines and drugs against tuberculosis (TB), and more recently COVID-19. He contributes to ongoing research to improve the control of TB and leprosy globally. He has 344 publications with an h index of 73 and has supervised 32 PhD students.

Professor Britton is co-PI on a new NIAID contract for Advancing Vaccine Adjuvant Research for Tuberculosis. He is CIA on the NHMRC-funded Centre for Research Excellence in Tuberculosis Control on Both Sides of Our Border that promotes TB research, collaboration, training and translation within Australia and the Asia-Pacific, and is an co-investigator on the MRFF-funded PEARL project, Pathway to Elimination of Antibiotic Resistant and Latent Tuberculosis and Leprosy in the Pacific.



Professor Nicholas Fisk **AM FAHMS**

***Deputy Vice-Chancellor (Research),
UNSW Sydney***

Professor Nicholas Fisk is the Deputy Vice-Chancellor (Research & Enterprise) at UNSW. He graduated MBBS from The University of Sydney, undertook specialty training in Australia, Scotland and South Africa, and then subspecialty training in the UK, with a PhD from University College London and MBA from Imperial College London.

His research is in the fields of developmental biology and maternal-fetal medicine, and he is the author of more than 400 publications. Previous positions include Professor of Obstetrics and Fetal Medicine at Imperial College London, inaugural Director of the University of Queensland's Centre for Clinical Research, and Executive Dean of the University of Queensland's Faculties of Medicine, Health & Biomedical Sciences.

Professor Fisk has held a number of international and national leadership roles, including President of the International Fetal Medicine and Surgery Society, Chair of the Scientific Advisory Committee of the Royal College of Obstetricians and Gynaecologists, Chair of the Steering Committee of the Association of Academic Health Centres International, and Chair of the Go8 Deans of Medicine Committee. He is currently a Board Member of Research Australia and Chair of the Go8 DVCR's Committee, while for UNSW he Chairs the Board of NewSouth Innovations and is a Director of TEDi-London.



Associate Professor **Sue Woolfenden**

***Director of Community Paediatrics,
Sydney Local Health District,
UNSW Sydney***

Associate Professor Sue Woolfenden is the Director of Community Paediatrics at Sydney Local Health District, a Clinical Professor at The University of Sydney and a NHMRC Senior Research Fellow. She is the co-chair of the NHMRC AHRTC Sydney Health Partners Child and Adolescent clinical academic group and co-chair of the Sydney Institute for Women, Children and their Families.

In her clinical, service development and research roles she aims to address child health and health care inequities in Australia and globally working with priority populations. She has experience working with large collaborative multidisciplinary teams including government, non-government agencies, parents, young people and clinicians using qualitative and quantitative methods.

Associate Professor Woolfenden is an investigator on multiple grants with a focus on developing integrated and equitable models of child health care with more than \$13 million funding over the last five years, and has 139 peer-reviewed papers. Sue also works with paediatric teams in the Asia Pacific as part of her clinical and research role.



Professor Christopher Maher FAHMS

*Director,
Institute for Musculoskeletal Health,
University of Sydney*

Professor Chris Maher is a physiotherapist, recognised internationally for his clinical research in the low back pain field. He has degrees in physiotherapy, exercise and sports science, a PhD and a Doctor of Medical Sciences. He completed his physiotherapy training at Cumberland College of Health Sciences at Lidcombe in Sydney. After graduating in 1982 he worked in a range of clinical settings in Australia and the United Kingdom before joining The University of Sydney School of Physiotherapy in 1990.

In 1999, Professor Maher cofounded the Physiotherapy Evidence (PEDro) Database to support evidence-based physiotherapy. Today PEDro is a free database of over 58,000 trials, reviews and guidelines evaluating physiotherapy interventions and receives more than 100,000 visitors per day.

Professor Maher is a Professor in the School of Public Health at The University of Sydney and co-director of Sydney Musculoskeletal Health, a research centre focused on improving musculoskeletal health and physical activity.

Professor Maher is a Fellow of the Australian College of Physiotherapy (analogous to specialist status in medicine) and Fellow of the Australian Academy of Health and Medical Sciences. He has been a National Health and Medical Research Council Research Fellow since 2006 and has more than 800 journal papers, 44 PhD completions and \$70 million in grants.



Associate Professor Justin Skowno

*Paediatric Anaesthetist and Researcher,
Children's Hospital at Westmead*

Associate Professor Justin Skowno is a full-time clinician-researcher at the Children's Hospital at Westmead in Sydney. He is the Director of Research in the Department of Paediatric Anaesthesia and is an Associate Professor with The University of Sydney. His research interests include cerebral monitoring using optical, electrical and other modalities, the neurodevelopmental impacts of anaesthesia and data science applications in anaesthesia and critical care.

He is currently a member of the Scientific Committee for the Society for Paediatric Anaesthesia in New Zealand and Australia and on the editorial board of the journal *Pediatric Anesthesia*.

He is a peer reviewer for *Anesthesiology* and other leading speciality journals. As a clinician, his focus is on paediatric cardiac anaesthesia, onco-anaesthesia, total intravenous anaesthesia, and anaesthesia for neonates and infants.



Dr Noemi Fuentes-Bolanos

***Paediatric Oncologist
and Clinical Cancer Geneticist,
Kids Cancer Centre***

***Researcher,
Children's Cancer Institute***

Dr Noemi Fuentes-Bolanos is a clinical academic originally from Spain. She is a paediatric oncologist and clinical cancer geneticist at Kids Cancer Centre in Sydney Children's Hospital and a researcher at Children's Cancer Institute.

After receiving her medical degree, she completed a Master of Sciences in Biomedicine before undertaking a PhD in epidemiology. She completed international fellowships in paediatric oncology in Spain, the United Kingdom and Australia. She further specialised in clinical genetics (cancer) by undertaking training in clinical and cancer genetics.

Dr Fuentes-Bolanos's primary research interest is cancer genetic risk in children, adolescents and young adults, and the implications for diagnosis and management of childhood cancer. She joined the national ZERO Childhood Cancer Program (Australia) in 2019 as a Cancer Predisposition Research Fellow.

Her current role focuses on integrative analysis and interpretation of somatic and germline findings in childhood cancer and translating these findings into meaningful clinical recommendations. Dr Noemi Fuentes-Bolanos is involved in developing several national clinical guidelines for the surveillance of children with cancer predisposition syndromes. Most recently, she has been fundamental in developing the Cancer PREDisposition in Childhood by Trio-based sequencing (PREDICT) Study, a state-wide pilot study that analyses family-based whole genome sequencing in every newly diagnosed child and AYA with cancer.

She loves dancing, diving, and bush-walking with friends in her free time.



Professor Natasha Rogers

***Head of Transplantation/Head,
Kidney Injury Group,
the Westmead Institute***

Professor Natasha Rogers is a Senior Staff Specialist at Westmead Hospital, where she is Head of Transplantation and Director of the Clinical Islet Transplant Program. She is Professor of Nephrology and Transplantation Medicine at The University of Sydney, where she is a NHMRC Emerging Leader Fellow, and is Deputy Director of the Centre for Transplant and Renal Research at the Westmead Institute for Medical Research. She runs the Kidney Injury Group, which focuses on molecular mechanisms of acute and chronic kidney injury, as well as translation of findings into clinical practice. Her team performed the first machine perfusion-treated kidney transplant in Australia in 2021, and she currently leads a multi-centre islet transplant trial that uses novel immunosuppression therapy.

Professor Rogers' research has attracted more than \$5 million in fellowships and grants from the American Heart Association, NHMRC, MRFF, National Heart Foundation and Diabetes Australia. She is currently Chair of the Scientific Program Committee for the ANZ Society of Nephrology, and the Oceania representative for the International Transplantation Society.

She divides her time between the hospital, the lab, and her home where she masquerades as a chauffeur and short-order chef. She definitely doesn't enjoy going to the gym, but likes to play the piano.



Dr Carlos Garcia-Esperon
*Director, Hunter Stroke Services,
John Hunter Hospital*

Dr Carlos Garcia-Esperon is a stroke neurologist and early career researcher at the John Hunter Hospital. He undertook his clinical training in neurology in Spain and Switzerland, followed by a Stroke Fellowship at John Hunter Hospital. He completed a PhD program at the University of Newcastle in the field of brain perfusion imaging in acute stroke.

He is originally from rural Spain (his grandparents were farmers). This made him steer the focus of his career towards enhancing access to reperfusion therapies for those stroke patients from rural areas. He has presented widely in regional and rural centres in New South Wales on the role of telethrombolysis in stroke management and educating healthcare practitioners in its role in acute stroke treatment. He has been awarded several research grants to support his work in the implementation of brain perfusion imaging in acute stroke treatment in a telestroke network.

His project, 'Implementation of Telestroke across HNE and MNC Local Health Districts', won the Health and Research Innovation category of the 2020 HNE Health Excellence Awards. He was recently awarded a three-year Hunter New England Clinical and Health Service Research Fellowship to build on this work in a project titled 'Using virtual reality to improve professional training for medical and nursing staff involved in rural and regional hyperacute stroke treatment'.

He has presented his research on a number of occasions at the European Stroke Organisation Conference, and locally at the Stroke Society of Australasia Annual Scientific Meeting. He is currently the Director of the Acute Stroke Services, Senior Conjoint Lecturer at the University of Newcastle, and a member of the Hunter New England Ethics Committee.



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UNSW Sydney is one of the world's leading research and teaching-intensive universities, known for innovative, pioneering research and high-quality education with a global impact.

Since our foundation in 1949, our aim has been to improve and transform lives through excellence in research, outstanding education, and a commitment to advancing a just society.

Our cutting-edge research impacts a wide range of areas including water technology, waste management, hydrogen energy storage and cancer research. Solar photovoltaic cells developed from UNSW research continue to play a critical role in the global transition to renewable energy.

International and regional partnerships, first-class academics and state-of-the-art facilities mean UNSW students graduate with relevant, sought-after skills. We offer an extensive range of undergraduate, postgraduate and research programs that attract students from across Australia and around the world.

A member of the prestigious Group of Eight (Go8), a coalition of Australia's leading research-intensive universities, UNSW is ranked in the top 53rd* globally with over 65,000 students and a 7000+ strong research community. We are committed to making a difference by focusing on areas critical to the future.

UNSW is also a member of the prestigious Universitas 21 international network and is a founding member of the International Universities Climate Alliance, a collaborative endeavour with 50 member institutions supporting government leaders in developing a climate policy on a global scale. UNSW is also the only Australian member of the Global Alliance of Technological Universities, a member of the Association of Pacific Rim Universities (APRU), part of the PLuS Alliance, and a partner of Coursera – the largest global provider of MOOCs (massive open online courses).

The main UNSW campus is located on a 38-hectare site at Kensington, seven kilometres from the centre of Sydney.

Other major campuses are the Art & Design campus in the Sydney suburb of Paddington and UNSW Canberra at the Australian Defence Force Academy.



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*Based on the 2022 Aggregate Ranking of Top Universities (ARTU)

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The University of Sydney has been challenging traditions for over 170 years. We make lives better by producing leaders of society and equipping our people with leadership qualities so they can serve our communities at every level.

Our vision for the next decade is unashamedly aspirational: to be known as a place where our education is transformational, where our community thrives through diversity, and our research tackles the world's greatest challenges. Whether in small steps, or giant leaps, the things we do today will change tomorrow. When leadership is for all of us, it is leadership for good.

With our research being driven by the big picture, we have invested more than \$1.5 billion in multidisciplinary initiatives in the last decade, to enable our academic staff to improve the lives of people in Australia and around the world. Supported by more than 90 research centres, our researchers are finding solutions to the world's greatest challenges – and many others – by changing the way they look at them.

The Faculty of Medicine and Health at the University of Sydney has a long history of excellence in health education and research and is focused on making and shaping the future of global healthcare. The Faculty has over 12,700 students enrolled in a large suite

of professional health accredited degrees as well as basic sciences training, led by over 1200 academic staff. In the last five years, we have had 1,553 HDR completions, over 31,000 academic publications generating 520,000+ citations and received \$1.2 billion in research funding.

We're dedicated to understanding and solving the world's biggest healthcare challenges. We challenge barriers to universal health and wellbeing, and we're at the forefront of advances in medicine and health.

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Centenary Institute

The Centenary Institute is a world-leading research organisation dedicated to tackling humanity's most pressing health challenges. This is underpinned by our discovery and therapeutic research in inflammation and immunity, cardiovascular disorders, cancer and age-related diseases.

Our vision is to improve human health through excellence in medical research. Fundamentally, we make biological discoveries that drive therapeutic innovations to support our health globally, now and into the future.

The Institute is located in the heart of Sydney's Tech Central precinct and we are privileged in being able to leverage valuable expertise from our precinct partners The University of Sydney, the Royal Prince Alfred Hospital and the University of Technology Sydney. Our large number of clinician scientists and affiliated academics are perfectly positioned to ensure a virtuous cycle of bed-to-bench-to-bed activity and the translation of our cutting edge research into clinical practice.

At Centenary, we offer early career scientists and clinicians, postgraduates and graduates, opportunities to progress medical research careers working alongside world-leading medical researchers and clinicians supported by state-of-the-art facilities.

We capitalise on our geographical advantage to build meaningful relationships with a focus on multi-disciplinary collaboration and improved economies of scale to increase world-changing discoveries that will improve human health.



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The ANU College of Health and Medicine provides knowledge for the nation, through excellence in science and service, and working in partnership with the health sector at local, national and international levels.

Our clinician-scientists are at the nexus of this, combining research and patient care to lead the discoveries and development of new treatments and insights into health and disease, and contributing to research-enriched teaching opportunities.

It is here, at the national university, and at the bedside of our Clinical Schools and partnering hospitals, where new possibilities can emerge,

and where we push the boundaries of education, research and development of health systems for the future.

We are proud to support the AAHMS Life as a Clinician-Scientist Program, and to inspire and support the clinician scientists to make a difference.



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