

### PROGRAM





#### Innovation

Innovation is key to optimising outcomes for patients while balancing the competing forces of cost, safety and equal access to quality care.



## Public and patient involvement

The value and challenges in delivering high quality public and patient involvement across both the research and the healthcare sectors.





#### **Policy**

The framing of health policy by policy makers through to its impact on patients.



## Health and the built environment

The complex relationship between people's health and the built environment.

### WE WOULD LIKE TO ACKNOWLEDGE THE GENEROUS SUPPORT OF OUR SYMPOSIUM SPONSORS

#### Diamond sponsor

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Established in 1949 with a unique focus on the scientific, technological and professional disciplines, UNSW is a leading Australian university committed to making a difference through pioneering research and preparing the next generation of talented global citizens for career success.

UNSW has a proud tradition of sustained innovation, focusing on areas critical to our future – from climate change and renewable energies to lifesaving medical treatments and breakthrough technologies. In the social sciences, UNSW research informs policy and expert commentary in key issues facing society ranging from human rights and constitutional recognition of Indigenous Australians to public health and population ageing.

We attract talented students from across Australia and around the world. Our 50,000-plus students come from 128 countries, making us one of Australia's most cosmopolitan universities. Partnerships with both local and global communities allow UNSW to share knowledge, debate and research outcomes. UNSW's public events include concert performances, open days and public forums on issues such as the environment, healthcare and global politics.

#### Emerald sponsor



The Sydney Partnership for Health, Education, Research and Enterprise (SPHERE) – a \$20 million venture between 14 NSW health leaders in health, education and medical research, is an accredited Advanced Health Research and Translation Centre (AHRTC), announced by the Federal Government.

Launched in March this year, SPHERE received the endorsement for its commitment to bringing together research, education and healthcare delivery organisations to benefit the community.

SPHERE is comprised of 14 organisations – four health services, three universities and seven medical research institutes – that have committed to deep cooperation to deliver better healthcare for Sydney and beyond.

In May 2017, SPHERE awarded \$6 million over three years from its \$20 million seed funding to its 12 Clinical Academic Groups, which are working to address major health challenges.

"These projects will deliver benefits for the population of Sydney and New South Wales, whilst also having a global impact. As an accredited AHRTC, SPHERE will both lead and collaborate on national initiatives with the other centres nationally," – Prof Ian Jacobs

SPHERE was gifted an indigenous name 'Maridulu Budyari Gumal' which means 'Working together for good health and wellbeing' in the language of the Dharug people (the original inhabitants of lands comprising much of Sydney) in recognition of SPHERE's importance to Aboriginal health in NSW.

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#### **Bronze sponsors**



Australian Government Department of Health



## momentum<sup>2</sup>

# WELCOME



**Prof Ian Jacobs** President and Vice-Chancellor, University of New South Wales and Chair, SPHERE



Prof Christopher Levi Executive Director, SPHERE

We would like to extend a very warm welcome to delegates and invited guests of the SPHERE 2017 International Symposium.

This inaugural event is proudly hosted by **The Sydney Partnership for Health, Education, Research and Enterprise** (SPHERE) – *Maridulu Budyari Gumal.* 

SPHERE is one of Australia's Advanced Health Research and Translation Centres, bringing into partnership the research, innovation and education 'engine rooms' in leading universities, teaching hospitals and medical research institutes with the 'front-line' of healthcare delivery in our local health districts and health networks. SPHERE's mission is to accelerate clinical research and innovation and rapidly translate new knowledge to improve health outcomes for patients, families and the broader community.

We are delighted the inaugural SPHERE 2017 International Symposium has brought together **thought leaders, clinicians, researchers, policy makers and innovators** from all over the world, united in their commitment **to improve health and wellbeing.** 

We trust that over the next two days, you'll find the Symposium has created the right environment for you to exchange ideas, gain new insights and a completely different perspective.

# VENUE INFORMATION

#### LOCATION

The SPHERE 2017 International Symposium is being held at The City Recital Hall, Sydney.

The City Recital Hall is located in the heart of Sydney's CBD at 2-12 Angel Place, Sydney, NSW.

The City Recital Hall has two main entrances. The Pitt Street entrance is a level accessway from the street leading into the ground floor foyer and is therefore the most accessible entry. There is also lift access at the Ash Street entrance to the ground floor foyer.

#### **PUBLIC TRANSPORT**

The City Recital Hall is a five-minute walk from Wynyard and Martin Place train stations and numerous bus routes along Martin Place.

#### TAXIS

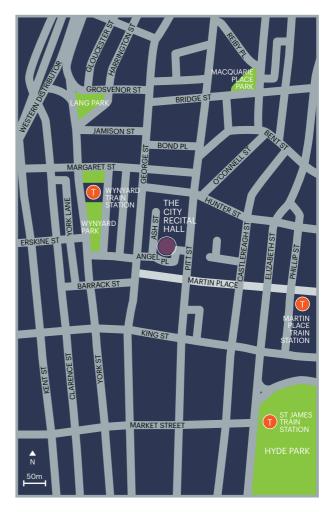
There is a drop off and pick up point directly in front of the Pitt Street entrance. Please note that this is a no parking zone.

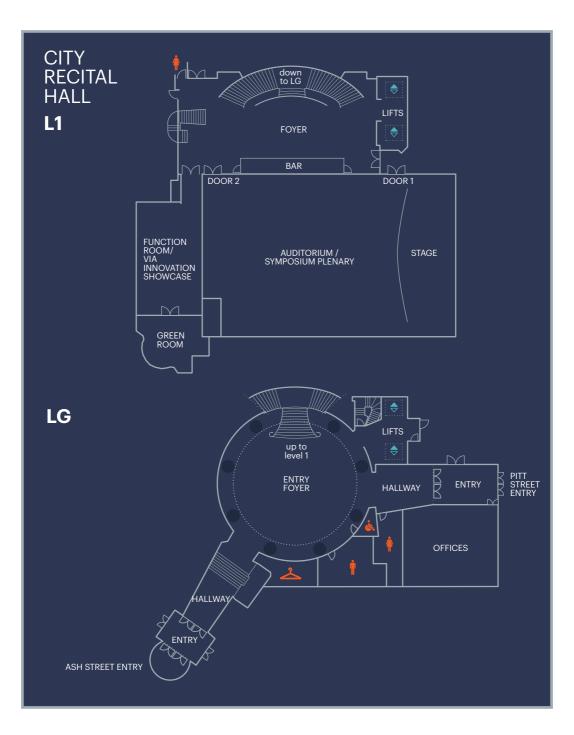
#### WHERE TO PARK

Wilson Parking operates a car park next to the City Recital Hall at 123 Pitt Street, Sydney. Accessible parking spaces are available in the car park beside the venue elevators. Patrons can access the Hall directly using the car park lifts.

#### SMOKING

Smoking is not permitted at the City Recital Hall. Smoking areas are located outside the building in the Angel Place Laneway and at least 4m from any doorway.







## DAY 1 PROGRAM

7:30-8:30	Registration open, coffee on arrival and <i>Forgotten Songs</i> soundscape by Mr Michael Hill, <i>Lightwell</i>
Disrupting	the landscape
8:30	Introduction and Master of Ceremonies Dr Norman Swan Host, The Health Report, ABC Radio National and Tonic, ABC News 24
8:40	Welcome to Country Uncle Charles (Chicka) Madden Gadigal Elder
8:50	<b>Welcome</b> Prof Ian Jacobs President and Vice-Chancellor, University of New South Wales and Chair, SPHERE   Prof Barney Glover Vice-Chancellor and President, Western Sydney University
9:15	Plenary address Mr Bill Ferris AC Chair, Innovation and Science Australia
9:45	Panel discussion Prof Christopher Levi Executive Director, SPHERE   The Hon Dr Annabelle Claire Bennett AO SC Chancellor, Bond University   Prof Les Bokey AM Foundation Prof of Surgery & Clinical Dean Western Sydney University, Liverpool Hospital
10:10	<b>Via Art performance</b> Dr Michaela Davies <i>Pachelbel's Canon</i> with Electric Muscle Stimulation (EMS) (Introduction by: Dr Norman Swan)
10:35	Morning tea, Via Innovation showcase and networking
Innovatior	n in healthcare
Innovation 11:00	n in healthcare Introduction Prof Melissa Knothe Tate University of New South Wales
	Introduction

### DAY 1 PROGRAM

behaviour change.

Creating opportunities for impactful, accessible and inclusive healthcare innovation at the intersection of industry and Philanthropy Ms Sue Van Wallace H. Coulter Foundation, USA (joining via WebEx) 11:45 Ms Sue Van, CEO of the Wallace H. Coulter Foundation, will conclude the session by sharing her experience in sparking and integrating innovation into healthcare solutions that are accessible for all stakeholders. As a global leader at the interface of industry and philanthropy, she will address the importance of inclusion and diversity for the full realisation of innovation's potential to positively impact wellbeing and healthcare outcomes throughout life. Panel discussion Prof Anushka Patel | Mr Sastry Chilukuri | Mr Ian Burgess Medical Technology Association 12:00 of Australia | Prof David Simmons Western Sydney University | Prof Michelle Haber AM Children's Cancer Institute **Personalised medicine** The transformation of medical research and healthcare by genomics and big data Prof John Mattick AO Garvan Institute of Medical Research Health is the biggest, most important and fastest growing industry in the world. All human characteristics, including susceptibility to diseases, are profoundly influenced by our genetic inheritance, although until recently it has been nigh on impossible to take genetic information into account in healthcare. This has all changed - over the past two decades the fastest technological advance in history has reduced the cost of human genome sequencing dramatically to a few thousand dollars, with further reductions to come - ushering in a new era of personalised medicine and 'precision health'. 12:30 Soon individual genome sequences will be a standard part of health records, which will revolutionise biomedical discovery, personal health, and health system management, and provide the platform for many associated enterprises. The Garvan Institute has established one of the world's largest human genome sequencing centres and one of the world's first genome analysis companies, Genome. One. Millions of genome sequences integrated with millions of clinical records and other information from personal devices and the internet of things will create an multi-dimensional data ecology that will require advanced systems not only to secure the privacy and provenance of the data, but also to enable its analysis by machine learning and artificial intelligence. Australia is well placed to be a leader in this revolution, which will have a transformational effect on health and medical research, national health, and ultimately the national economy. The promise of genomics in complex disease: a clinician's perspective Prof John Attia University of Newcastle The high estimates of heritability originally obtained for many complex diseases led to the expectation that genomics could be used to predict an individual's risk of disease with high accuracy. Genome-wide association studies however have been disappointing, with genetic 'hits' explaining only a small proportion of the expected heritability. The potential explanations for this will be reviewed including: the finding that most complex diseases 12:40 seem to be due to multiple genes each with a small effect size; and new methods of calculating heritability based on all genotyped variants find smaller estimates of heritability. We focus on four potential areas for clinical translation of genomic data: understanding disease pathways, e.g. shared pathways between Mendelian disease and complex disease; identifying new therapeutic targets, e.g. PCSK9 hits and monoclonal antibodies; avoiding drug side effects, e.g. statin myopathy and bleeding with warfarin, and prompting health

12:50	<b>Panel discussion</b> Prof John Mattick AO   Prof John Attia   Mr Sastry Chilukuri
13:10	<b>Opportunity to share, exchange and learn</b> Mr Ian Burgess CEO Medical Technology Association of Australia
13:15	Lunch, Via Innovation showcase, networking and Via Art installation – Dr George Khut Mobile Mood Lab
Policy -	Beyond the squeaky wheel
14:30	Introduction Prof Robert Clark AO University of New South Wales
	Indigenous health policy, closing the gap Prof Lisa Jackson-Pulver AM Western Sydney University
14:45	Closing the Gap is a priority of government that is failing not only Aboriginal and Torres Strait Islander peoples across this land, but those who put their trust and respect into Government and the policy environment from whence this came. Today – most of the Closing the Gap targets are not on track. The aspirations of so many – just a decade ago – are crashing down in the reality of ambiguous government 'support', damning health and life expectancy statistics, and persistent censure of Australia on the international stage. People are tired, sick and over being the bad news headlines all the time. A few years ago, the Australian media called the past 10 years a 'wasted decade' where kidney disease, diabetes, and some respiratory disease along with the now notorious 11-plus-year gap in life expectancy between Aboriginal Australian and other Australians. These handles and news stories serve little good other than to say what has been said for years – the health and wellbeing of Aboriginal and Torres Strait Islander Australians is a national shame and blight upon this country.
	Although there are many excellent commentators taking the time to speak to what works in community, there is little uptake by those who can make a difference – that is those who work in the health system, our policy makers and those who work within education. Today's talk will speak to the intersect of health data and statistics and how this can inckform empowering modalities from the world of policy, health service provision, professional education and community itself.
	Harnessing better value care Ms Elizabeth Koff Secretary NSW Health
15:00	Health systems around the world recognise growth in healthcare expenditure is unsustainable. It requires us to explore how we, as system stewards, can ensure financial sustainability of healthcare delivery whilst maintaining safe high quality care for patients.
	NSW Health is on a journey to achieve better value healthcare. Through understanding patient experience and outcomes, measuring clinical effectiveness & variation in clinical practice and achieving systems integration with our service partners, we can steer a course to sustainability

## **DAY 1 PROGRAM**

	Bridging the gap between research and practice in the UK – experience of Academic Health Science Networks Prof Gary Ford CBE Oxford Academic Health Science Network, UK
15:15	The UK has world leading life science research outputs yet has slower uptake of new drugs and technologies compared to similar health economies. Academic Health Science Networks were established in 2013 to improve patient outcomes and generate economic benefits for the UK by promoting and encouraging the adoption of innovation in healthcare through regional partnerships covering all of England between the NHS, Universities and industry. Despite working in a challenging financial environment early experience suggests they can play a unique role in brokering partnership working and aligning NHS needs to high impact research outputs, working in close partnership with Academic Health Science Centres established in leading academic centres and other research infrastructure.
	Timing and engagement in evidence development: the cause and the cure for the squeaky wheel Dr Leslie Levin EXCITE International, Canada
15:30	The development of evidence to support post-regulatory policy decision-making for the adoption of health technologies is counterintuitive and counterproductive. This is because the evidence generated is aimed at regulators and does little to inform subsequent decision making at the point of adoption. High rejection rates (50-95%) of regulatory-approved technologies by Payers leads to adversarial responses and contributes to the squeaky wheel approach which is characteristic of most health systems.
	An understanding of this dynamic is presented together with a recent approach to a comprehensive collaborative approach to evidence development pre-market (pre-regulatory approval) involving payers, regulators, patients, expert end-users and health systems across the continuum from innovation to adoption. Experience from a proof of concept study commenced in 2012 and now expanded internationally through EXCITE International is described, together with other pre-market initiatives from NICE (U.K.) and the FDA.
	This transformational approach aimed at a collaborative approach to pull pre-selected disruptive, impactful new health technologies as opposed to pushing them into health systems is most likely to mitigate the risk of downstream rejection and, through its transparent, collaborative approach, will address the issues of mistrust and discontent that drives the squeaky wheel in this area of decision making.
	<b>It's all about leadership</b> Mr Martin Bowles PSM Calvary Health Care
15:45	Martin will reflect on almost 40 years experience working in public policy across State and Commonwealth Governments and 15 years in the Healthcare sector at the most senior levels. Our world is moving rapidly, technology is changing everything we do and healthcare is no exception. Public policy makers are probably never going to be on the cutting edge of this but they must enable it. The creation of cultures that allow individuals within the system to experiment with the bounds of the system but also allow external people access to basic infrastructure to enable innovation is critical more than ever if we are to keep up. The development of My Health Record is a great example. This permission culture carries risk and public policy makers always need to balance risk with innovation, facilitation and good governance. His contention is that Leadership will pave the way and enable the many and varied differences across organisations to come to the top to allow innovative solutions to future problems.

16:00	Leading change into the future: Themes and trends in the wider world of change and implications for healthcare leaders and policy makers Dr Helen Bevan OBE National Health Service, UK (joining via WebEx) — Healthcare leaders and policy makers are operating in a world that is increasingly dynamic, fast moving and with so many complex dilemmas that there is often no 'right' answer. In this lively session, Helen Bevan will help us explore some of the latest ideas, tools and approaches from leading practitioners of large scale change around the globe. We will reflect on the practical implications and opportunities for our work in a world where the balance between 'old power' (positional power and authority) and 'new power' (networks and social movements) is shifting. We will consider how to build our individual and collective capability for leading change and delivering results in this new world.
16:15	<b>Panel discussion</b> Prof Lisa Jackson-Pulver AM   Ms Elizabeth Koff   Prof Gary Ford CBE   Dr Leslie Levin   Mr Martin Bowles PSM   Prof Bruce Neal The George Institute for Global Health   Prof Michael Farrell National Drug and Alcohol Research Centre
16:55	<b>End of day one wrap up</b> Prof Fiona Brooks Associate Dean Research and Prof of Public Health at The University of Technology Sydney (UTS)
Symposiu	m networking cocktail event (from 17:00)
17:40	<b>Via Art performance</b> Dr Robin Fox <i>Single Origin,</i> concerto for a laser beam (Introduction by: Dr Norman Swan)
18:10	Close of day one



## DAY 2 PROGRAM

7:00-8:45	Via Industry Networking Breakfast Event
7:00-9:00	Registration open and coffee on arrival
9:00	Introduction and Master of Ceremonies Dr Norman Swan Host, The Health Report, ABC Radio National and Tonic, ABC News 24
9:10	Welcome Prof Christopher Levi Executive Director, SPHERE
Inside outside – health and the built environment	
9:20	Introduction Mr Geoff Roberts Greater Sydney Commission
	Plenary address: What can be achieved by collaborating? Ms Lucy Turnbull AO Greater Sydney Commission
9:35	The Greater Sydney Commission has a bold vision for the future of the region; three connected but distinct cities, where by 2056 the majority of residents can live within 30 minutes of jobs and services. But rebalancing the city, leveraging growth and delivering the benefits more equally and equitably across the region can't be done by the Commission alone. Enhancing Greater Sydney's liveability, productivity and sustainability will require unprecedented levels of collaboration and the Commission is leading the way.
9:55	Stimulating environments and brain plasticity – links to resilience, prevention and recovery Prof Michael Nilsson Hunter Medical Research Institute — — — — — — — — — — — — — — — — — — —
10:10	You're building what now? Financing the healthcare eco-system of the future Mr Sam Bowen Commonwealth Bank of Australia — Amazing new technologies, changing consumer preferences and demands, and increasing funding pressures are driving significant change right across the healthcare sector. What does the future hold? Who (or what!) will be providing healthcare? Who are the patients of tomorrow? How will healthcare be delivered? And where? These are questions all healthcare sector participants are asking, including the institutions that finance the sector such as governments, investors, and banks. How do these capital providers see the evolution of the organisations, equipment and facilities they finance? And how do they need to adapt to finance the healthcare eco-system of the future?

## DAY 2 PROGRAM

	La Serenissima and the serenity: health and our environment Prof Evelyne de Leeuw Centre for Health Equity Training, Research & Evaluation (CHETRE)
	— What creates a great city for health – one that gives everyone the best opportunity to get out of life what its potential holds? We all know such great cities and we tend to know them by their nickname. The Big Apple (New York) and La Serenissima (Venice) win the attractiveness contest for tourists, The Most Liveable City (Melbourne) claims its name as a consequence of a compilation of (pseudo-)scientific indicators. But are these Healthy Cities?
10:25	This presentation will show that health is a complex choice – for communities, businesses, and politicians. Numbers alone, nor infrastructure investment, will achieve health for all equitably. Rather, embracing values that relate to sustainability, solidarity, participation, vision and yes, power distribution in society creates the conditions for health for all, in particular in urban environments. Winston Churchill said 'We make our cities, and then they make us.'
	In Greater Sydney we are now creating our new cities. We should make them such that we all benefit from the serenity – it is what the family of the landmark movie The Castle sought in their effort to live at an airport. It may well be what we want here. La Serenissima – 21st Century Sydney; and our serenity at Western Sydney Airport.
	It is time to recognise that our urban hardware (infrastructure) only works with great software (people and their values). Oh, the serenity!
10:40	<b>Panel discussion</b> Ms Lucy Turnbull AO   Prof Michael Nilsson   Mr Sam Bowen   Prof Evelyne de Leeuw
11:20	Morning tea, Via Innovation showcase and networking
Public a	nd patient involvement – Are we listening?
11:50	Introduction Prof Christopher Levi Executive Director SPHERE
12:00	<b>Panel: Patients to the fore</b> Ms Karen Carey Community and Consumer Advisory Group, NHMRC   Dr Mark Parsons Healthcare Consumer   Dr Jane Thompson Healthcare Consumer   Ms Catriona & Ms Harriet Ling Healthcare Consumers   Ms Joanna Knott Healthcare Consumer
13:00	Lunch, Via Innovation showcase, networking and Via Art installation – Dr George Khut <i>Mobile Mood Lab</i>

	<b>The Australian Health Research Alliance: Opportunities for public and patient involvement to drive an accountable health and research sector</b> Prof Helena Teede Monash Partners, Chair Australian Health Research Alliance
14:00	In line with international best practice, NHMRC has competitively accredited large-scale health service led, research and education collaborations as AHRTCs (Advanced Health Research and Translation Centres) and CIRHs (Centres for Innovation in Regional Health). These world class health service led entities 'excel in research, the translation of evidence into excellent patient care, and demonstrate a strong research and translation focus in the education of health professionals.' The Centres, recognising their unique leadership responsibilities and shared capabilities, have undertaken to work together as a National Alliance. Through the Alliance we collaborate strategically, practically and effectively in the delivery of health and medical research, translation into improved health outcomes. Together, the accredited Centres receive almost 90% of the nation's competitively funded health and medical research, and disadvantaged communities. Through the Alliance, the Centres will work together and share learnings that address systems challenges faced by our health services and the diverse communities in the Australian population. We will provide a unique national integrated systems-level platform for translational activities the Alliance will address the barriers to coordinated and effective healthcare resulting from federal and state health funding.
	Public and patient partnership is fundamental to shift the paradigms of our health system which is designed around our healthcare organisations and of our research sector which is driven by investigators, the community and both the funders and beneficiaries of our health and research investments. Yet the ability for influence and accountability to our community is not part of our current health and research systems. The AHRTC's, CIRHs and the AHRA offer an ideal opportunity to start to shift these paradigms to a more balanced, integrated, accountable and outcome focused health and research system. The AHRA is working across key areas where national systems level approaches will yield greatest benefit. This includes in public and patient involvement with the development of a national framework and strategy development.
14:25	<b>Via Art NIDA performance - Where we are, Act 1</b> Written by Dr Stephen Sewell (Introduction by: Dr Norman Swan)
14:45	<b>Panel: What are we doing?</b> Prof Christopher Levi   Prof Helena Teede   Ms Elizabeth Koff   Emeritus Prof Maree Gleeson OAM <i>NSW Regional Health Partners CIRH</i>   Prof Garry Jennings AO Sydney Health Partners   Ms Karen Carey   Dr Jane Thompson   Ms Jennie Lang Honorary Fellow of University of New South Wales
15:30	<b>Wrap up and next steps</b> Prof Ian Jacobs President and Vice-Chancellor, University of New South Wales and Chair of SPHERE
15:45	Via Art NIDA performance – Where we are, Act 2
16:00-16:30	Farewell drinks

# PLENARY SPEAKER DAYONE



Mr Bill Ferris AC Chair. Innovation and Science Australia Board

Mr Ferris was appointed as Chair of the Innovation and Science Australia Board in November 2015. He has been the Executive Chairman of CHAMP Private Equity since its formation in 2000, and of its predecessor, Australian Mezzanine Investments Pty Ltd (AMIL), which he co-founded in 1987 with Joseph Skrzynski. Mr Ferris is a 45-year veteran of private equity in Australasia, founding Australia's first venture capital firm in 1970.

Mr Ferris' current directorships include Co-Chairman; CHAMP Private Equity group and Member of the Harvard Business School Asia Pacific Advisory Council.

Former recent directorships include: Chairman; Garvan Institute of Medical Research and Chair of the of the Federal Government's Health and Hospitals Fund Advisory Board. Other former directorships include: Chairman; Accolade Wines Australia and UK, Austar United Communications, Australian Trade Commission (Austrade), Macquarie University Asia Pacific Council, and Director; Garvan Research Foundation, Austal Ltd and Australian Institute of Management (NSW) Ltd. Mr Ferris joined the expert panel for the Federal Government's Strategic Review of Health and Medical Research in October 2011. Mr Ferris was made an Officer of the Order of Australia in 1990 for services to the export industry and in 2008 was made Companion in the Order of Australia for his philanthropic activities, as a leader in support of medical research and his role in the establishment of the private equity sector in Australia.

Mr Ferris holds an Honours degree in Economics from the University of Sydney and a Master of Business Administration from Harvard Business School where he graduated as a Baker Scholar in 1970.

Mr Ferris is the author of three books: 'Really Making a Difference' published December 1993, 'Nothing Ventured, Nothing Gained' published March 2000, and 'Inside Private Equity', published January 2013.

# PLENARY SPEAKER DAYTWO



#### Ms Lucy Turnbull AO Chief Commissioner, Greater Sydney Commission

Lucy Hughes Turnbull AO is an urbanist, businesswoman and philanthropist with a longstanding interest in cities, and technological and social innovation. She chaired the Committee for Sydney from 2012 to 2015.

In 2015 she was appointed Chief Commissioner of the Greater Sydney Commission, tasked by the NSW state government to assist in delivering strong and effective strategic planning for the whole of metropolitan Sydney.

She is Chairman of Prima BioMed Limited, an ASX-listed biomedical company undertaking clinical development for an immuno-therapeutic cancer treatment. Mrs Turnbull was the first female Lord Mayor of the City of Sydney from 2003-4 and in 2011 she became an Officer of the Order of Australia for distinguished service to the community, local government and business.

In 2012 Mrs Turnbull was awarded an honorary Doctorate of Business by the University of New South Wales, and was appointed Adjunct Professor at the Faculty of Built Environment, University of New South Wales, in 2016.



#### Prof John Attia Prof of Medicine and Clinical Epidemiology, University of Newcastle

John has expertise in population, clinical, molecular and genetic epidemiology. Prof Attia trained at McMaster University (Canada) in clinical medicine with a specialty in general internal medicine (MD) and obtained his fellowship with the Royal College of Physicians of Canada and the Royal Australasian College of Physicians. During this time he was awarded the Outstanding Housestaff award, the J.T. Walsh award for outstanding Internal Medicine resident, and Best Teacher in Internal Medicine. He also obtained a BSc in Physiology (Faculty scholar at McGill University), a MSc in Epidemiology (McMaster University), and a 5 year MRC scholarship to complete his PhD in Molecular Genetics (University of Toronto). He has been listed on the NHMRC register of Evidence-Based Medicine experts and has provided epidemiological expertise to the Therapeutic Goods Administration and currently to the Medical Services Advisory Committee. He is currently academic director of general medicine at John Hunter Hospital responsible for the advanced training program, as well as director of the Clinical Research Design, IT, and Statistical Support (CReDITSS) Unit, a unit that provides epidemiological and statistical methodological advice to clinical researchers. The unit has 2 epidemiologists, a senior statistician, 7 junior statisticians, 2 informaticians, a senior analyst and 2 programmers. He is still active in clinical medicine as a general physician, contributing ¼ of his time to the on-call roster.



#### The Hon Dr Annabelle Bennett AO SC Chancellor, Bond University

The Honourable Dr Annabelle Bennett AO SC is a retired Judge of the Federal Court of Australia and was an additional judge of the Supreme Court of the ACT, having previously practised as a Senior Counsel specialising in intellectual property. She is currently Chancellor of Bond University; an Arbitrator of the Court of Arbitration for Sport; Member of the Board of Directors of the Garvan Institute; Member of the Advisory Council of Questacon; Member and past President of Chief Executive Women; and Member of the Advisory Board of the Faculty of Law at The Chinese University of Hong Kong. Dr Bennett is a Member of the International Centre for Settlement of Investment Disputes Panel of Arbitrators (ICSID), a Member of the World Intellectual Property Organisation (WIPO) Mediation and Arbitration List of Neutrals, a Member of the indicative List of Government and Non-Governmental Panellists for the World Trade Organisation (WTO) Disputes Settlement Process and a Pool member of the NBN Co Dispute Resolution Panel.



#### **Dr Helen Bevan, OBE** Change Leader, English National Health Service, UK

During her 25 years as a change leader in the English National Health Service, Helen has been at the forefront of multiple nationwide NHS improvement initiatives. She has supported healthcare leaders in many other countries in their change efforts. Helen leads the Horizons team, which is a source of ideas and knowledge to enable the spread of improvements at scale.



**Prof Les Bokey AM** Foundation Prof of Surgery and Clinical Dean Western Sydney University at Liverpool Hospital

Prof Bokey is Foundation Prof of Surgery and Clinical Dean, Western Sydney University at Liverpool Hospital. He is the Director of Research for the South Western Sydney Local Health District, Director of Surgery and Clinical Director, SWSLHD. He is the Director of The South Western Institute for Robotics and Automation in Health. His expertise and technical innovations, especially in rectal cancer surgery, are acknowledged internationally. Prof Bokey has worked at St. Bartholomew's Hospital, London, Sahlgrenska University Hospital, Goteborg and the Cleveland Clinic Foundation. Before joining Western Sydney University, he was Head of Surgery, Faculty of Medicine and Associate Dean of Surgical Sciences at Sydney University. In 2016, he was appointed Interim Director of *Maridulu Budyari Gumal'* The Sydney Partnership for Health, Education, Research & Enterprise (SPHERE) and was instrumental in fostering clinical academic groups across the partnership. He has been awarded The Order of Australia Medal for service to medicine as a colorectal surgeon and for the establishment of surgical education programs, research, and medical administration.



**Mr Sam Bowen** Executive Director, Healthcare, Commonwealth Bank

Sam Bowen leads Healthcare client coverage in the Commonwealth Bank's Institutional Banking and Markets division. Sam and his team work with clients across the healthcare sector to support the delivery of higher quality and more affordable products and services to governments, providers and patients. Sam is fascinated by what the future holds in healthcare for people and organisations. As the sector adapts to increasingly rapid change in technologies, demographics and structures, Sam and his team are focused on bringing CommBank's market leading innovation culture to support clients as they evolve to meet that challenge.



Mr Martin Bowles PSM National Chief Executive Officer, Calvary Health Care

Martin has recently taken up the appointment of National Chief Executive Office, Calvary Health Care. He was previously Secretary of the Department of Health since October 2014. He led reforms in primary healthcare and mental health service arrangements, access to medical and pharmaceutical benefits, aged care, hospital funding and digital health.

Prior to this Mr Bowles was the Secretary of the Department of Immigration and Border Protection. He also held the positions of Deputy Secretary in the Department of Climate Change and Energy Efficiency, and the Department of Defence, respectively. In 2012 Mr Bowles was awarded a Public Service Medal for delivering highly successful energy efficiency policies and remediation programmes for the Home Insulation and Green Loans programmes. Mr Bowles held senior executive positions in the railways, education and health portfolios in the state government public sector, prior to joining the Commonwealth Public Service.



#### **Prof Fiona Brooks (BA, PhD)**

Associate Dean Research and Prof of Public Health at The University of Technology Sydney (UTS)

Since 2008 she has been a Chief Investigator on the World Health Organization study the Health Behaviour in School-aged Children study (HBSC), which takes place in 45 countries. Prior to joining UTS two years ago she worked at the Universities of Sheffield and Hertfordshire in the UK. Her work has been funded by the NIHR, NHMRC, ESRC, Department of Health and the EU (Horizon 2020 and Marie Curie). She has a strong interest in the development of evidence informed policy and her work has been widely used across government agencies and she has been an commissioned author and expert advisor to the Chief Medical Officer, UK Cabinet Office, Number 10, Public Health England (PHE) and on adolescent health.



Mr Ian Burgess Chief Executive Officer, Medical Technology Association of Australia (MTAA)

The Medical Technology Association of Australia is a national association representing companies in the medical device industry. The association provides online and face to face training for medical industry staff who work with advanced technology.





Ms Karen Carey Community and Consumer Advisory Group, NHMRC

Karen has represented consumers for more than a decade across all levels of the healthcare system. She is the Consumer Representative on the NHMRC Council, the Chair of the NHMRC Community and Consumer Advisory Group, the immediate past Chair of Consumers Health Forum and former Chair of Health Consumers Council of WA.

Karen's focus is on building a healthcare system that highly values prevention and in which consumers can meaningfully partner with service providers to deliver safe, effective and cost-effective care, from individual patient episodes to systemwide strategic planning and design.

Karen has been the Executive Producer of the evidence-based health program *Tonic* broadcast on ABC TV and in more than 25 countries internationally. She is also the co-founder of *Tonic Health Media*, which narrowcasts broadcast quality evidence-based health programs into healthcare environments providing consumers with accurate health information at the time when they are most likely to be activated by key messages.



**Prof Robert Clark AO** University of New South Wales

Robert is Chief Scientist in Residence at UNSW's Faculty of Art and Design and was Chair of Energy Strategy and Policy at UNSW. Recent projects at the intersection of art and science have established UNSW's state-of-the-art EPICentre facility for 3D immersive visualisation of medical and mental health research data. He was previously Chief Defence Scientist of Australia, CEO of DSTO and a member of Australia's Defence Committee and PMSEIC. Prior positions include founding Director of the ARC Centre of Excellence for Quantum Computer Technology and Fellow of The Queen's College, Oxford. His early career was as a seaman officer and ship's diver in the RAN.



Mr Sastry Chilukuri Partner, McKinsey & Company

Over the last 11 years at McKinsey, Sastry has extensively served across the healthcare value chain, including bio-pharma, medical device, public sector healthcare, health technology, and investor clients on a wide range of topics. He is a core leader in the Pharmaceuticals and Medical Device practice, the Digital McKinsey practice and founded the Center for Analytics and Real-world Evidence (CARE).



**Prof Evelyne de Leeuw** Director, Centre for Health Equity Training, Research & Evaluation (CHETRE), University of New South Wales

Evelyne de Leeuw joined CHETRE in September, 2015, and is based at the interface of health research, policy and practice at UNSW Australia, the South Western Sydney Local Health District/ Population Health, and the Ingham Institute. Since its initiation in 1986, she has been active in the international Healthy Cities movement. From 1992 to 2001 she held the position of Director of the World Health Organization Collaborating Centre for Research on Healthy Cities at the University of Maastricht. Between 1992 and 1998 she was Secretary-General of the Association of Schools of Public Health in Europe. She also held academic appointments in Denmark, El Salvador and Montréal. She (co)edits the Palgrave Series in Health Political Science and the Oxford Encyclopaedia of Healthy Cities and Communities.



**Prof Michael Farrell** Director, National Drug and Alcohol Research Centre

Prof Michael Farrell's area includes broad based population studies based on Psychiatric Morbidity and its relationship to substance use. His other key area is Evidence Based Practice and Treatment Evaluation and the Translation of research into practice with a focus on harm reduction. He is a founding Editor of the Cochrane Drug and Alcohol Group. He is the Theme lead for UNSW Faculty of Medicine promoting research collaboration across mental health, addictions, neuroscience and ageing.



#### Emeritus Prof Maree Gleeson OAM Interim Director, NSW Regional Health Partners

Maree has held leadership positions in health services, health policy and medical research. Maree has over 40 years research experience. Maree's research involved the development of immunity in children and the role of respiratory infections in the predisposition to asthma, allergy and SIDS. A major focus for the past 25 years has been in the field of exercise immunology in collaboration with the Australian Institute of Sport on the causes and control of respiratory illness in elite athletes.



**Prof Gary Ford CBE** Chief Executive Officer, Oxford Academic Health Science Network

Prof Ford's research interests are on the impact of ageing on drug responsiveness with a focus on acute stroke therapies. He has been involved in many service innovations in UK stroke care in the last 20 years including developing the first thrombolysis protocol for acute stroke in England. He developed the Face Arm Speech Test (FAST) now used around the world to increase public and professional awareness of stroke.



**Prof Barney Glover** Vice-Chancellor and President, Western Sydney University

Professor Barney Glover assumed his position at Western Sydney University in January 2014. Professor Glover is currently the President of the Board of Trustees of the Museum of Applied Arts and Sciences Trust and the Australian Government representative on the University of the South Pacific Grants Committee. He is also a Board Member of the Australian American Fulbright Commission, and The Committee for Sydney, and, Member of the NSW Innovation and Productivity Council and the NSW Arts and Culture Advisory Committee. Professor Glover is a Fellow of the Academy of Technological Sciences and Engineering (ATSE) and the Royal Society of NSW. Professor Glover's esteemed career also includes significant expertise and experience at the most senior levels of university management and substantial business leadership credentials. He has also served on the boards of a range of corporate organisations and several state and national centres covering areas such as health and medical research, energy, mineral exploration, and telecommunications.



Prof Michelle Haber AM Prof and Executive Director, Children's Cancer Institute

Prof Michelle Haber is internationally recognised for her world-class research into the treatment of neuroblastoma and acute lymphoblastic leukemia in children. Her project team are working towards more effective treatments for individual childhood cancers by identifying molecular targets that drive the growth and development of cancer in children, developing new drugs to inhibit the action of these targets, and combining existing and new drug treatments into novel therapeutic approaches that can be rapidly translated into national and international clinical trials. She is currently leading the Zero Childhood Cancer national child cancer personalised medicine program, which is currently in the pilot testing phase and will be rolled out shortly as a national clinical trial involving every children's hospital in Australia. When fully implemented, this program will enable all newlydiagnosed, high-risk childhood cancer patients in Australia, and all children who relapse following treatment, to have their therapy tailored to the specific genetic and biological characteristics of their individual tumour.



**Prof Lisa Jackson-Pulver AM** Pro Vice-Chancellor Engagement & Pro Vice-Chancellor Aboriginal & Torres Strait Islander Leadership, Western Sydney University

A proud Wiradjuri woman bred and born on Cadigal land. She is regarded as a visionary educator who has played a key role in the development of a number of designated Aboriginal and Torres Strait Islander spaces in the academic environment over the last 15 years. During this time, she engaged vigorously with many communities and organisations to develop a series of residential and other scholarship programs that inspire donors to continue to contribute over half a million dollars annually. She has led the development and implementation of policy across the broader health and academic environments.



#### **Prof Ian Jacobs** President and Vice-Chancellor, University of New South Wales and Chair, SPHERE

Prof Jacobs came to Australia from the UK, where he had a distinguished career as a leading researcher in the area of women's health and cancer and in university leadership. Immediately prior to joining UNSW he was Vice President and Dean at the University of Manchester and Director of the Manchester Academic Health Science Centre, a partnership linking the University with six healthcare organisations involving over 36,000 staff.



#### **Prof Garry Jennings AO** Executive Director, Sydney Health Partners

Garry Jennings is also Chief Medical Advisor of the Heart Foundation and Senior Director at the Baker Heart and Diabetes Research Institute. He has served as President of a number of national and international scientific societies and of the Association of Australian Medical Research Institutes (AAMRI). A cardiologist, over 500 of his publications have been cited more than 25,000 times on subjects ranging from prevention, pathophysiology and treatment of cardiovascular disease to aboriginal health and health policy.



#### Ms Elizabeth Koff Secretary, NSW Health

Elizabeth has held a number of Senior Executive roles within the NSW health system, including Director Clinical Operations South Eastern Sydney Illawarra Area Health Service and Chief Executive of Sydney Children's Hospitals Network.

In February 2015, Elizabeth commenced in the role of Deputy Secretary, Strategy and Resources at the NSW Ministry of Health where she was responsible for strategic health policy development and systemwide planning of health services.

In May 2016, Elizabeth was appointed Secretary, NSW Health. As Secretary, Elizabeth is committed to strategically re-shaping health services to provide better value care and improved patient outcomes, ensuring NSW continues to lead the nation in delivering high quality care to its communities.



#### **Prof Melissa Knothe Tate**

Paul Trainor Chair of Biomedical Engineering, UNSW Sydney; Fellow of AIMBE, ASME, BMES, Engineers Australia

Prof Knothe Tate, a global award winning medand bio-tech innovator and entrepreneur, has led a number of international biotech initiatives and serves as a key opinion leader in the field. She is an inventor of several disruptive technologies, with track record of pre-clinical testing and translation to commericalised products as well as mentoring the next generation to engineer innovation.



Ms Joanna Knott Chair/Co Founder, SpinalCure Australia

In 1992 Joanna had a skiing accident at Thredbo which broke her neck and severely damaged her spine causing quadriplegia.

Today Joanna continues her career as a speaker/ writer/editor and publicises the progress of the search for a cure for people with spinal cord injuries.

As a director, co-founder and now Chair of the national research charity, SpinalCure Australia since 1994, she has project managed major medical conferences; written articles and speeches; and advocated on the topic of spinal research and the urgent need for funding for a cure. SpinalCure's funding priority is now Project Edge www. projectedge.org.au with UTS. From 2005 – 2007, she was the Convenor of the patient lobbying group, CAMRA (Coalition for the Advancement of Medical Research, Australia). The group successfully campaigned for legislation to permit research into SCNT (Somatic cell nuclear transfer) or therapeutic cloning. She has worked on the boards of several other disability related organisations.

In 2008 she was awarded an OAM for services to spinal cord injury and her advocacy work on medical (stem cell) research having also sat on NSW committees selecting research grants and acting as advisor to the NSW Premier on spinal injuries and related conditions.



Ms Jennie Lang Honorary Fellow, UNSW Sydney

Jennie has worked in senior positions at UNSW for over 20 years including most recently as Vice-President Advancement until July 2017 and previously as Pro-Vice-Chancellor International and Executive Director, International Office. In 2015 Jennie was diagnosed with Stage 3 breast cancer and has undergone a partial mastectomy, chemotherapy, radiation treatment and has a team of specialists from the Kinghorn Centre at the Garvan Institute, and St Vincents Clinic, together with a trusted GP from Double Bay who continue to monitor her recovery progress. Jennie sees herself as a breast cancer survivor.



Prof Christopher Levi Executive Director, SPHERE

Prof Christopher Levi has established one of Australia's leading stroke research groups. His overarching research vision has been the translation of experimental stroke therapies into the clinical domain. This builds on a career objective to provide healthcare professionals with greater knowledge, better tools and more effective strategies to treat and prevent stroke.

Prior to his appointment as the Executive Director of the Sydney Partnership for Health Education Research & Enterprise (SPHERE) he was the Director, Clinical Research and Translation for the Hunter New England Local Health District.



#### Dr Leslie Levin Chief Executive Officer & Scientific Officer, EXCITE International

Dr Levin is an international opinion leader in creating a transformational change in the application of evidence to drive impactful innovation and guide it along the pathway to adoption. Dr Levin initiated the first comprehensive collaborative pre-market evaluation program, MaRS EXCITE, at MaRS Development District in Toronto to drive innovation to adoption. Based on the success of MaRS EXCITE, in 2014 he founded EXCITE International which was recently incorporated as an non-profit independent organization to expedite adoption of new impactful technologies globally. EXCITE International represents a rapidly forming international collaboration between USA, UK, Canada, Norway and the Netherlands and is growing rapidly to include other jurisdictions. Since 2014 Dr Levin has focused exclusively on a collaborative approach to pre-market evidence development that uses evidence to drive the innovation of impactful new medical technologies across the continuum from innovation to evaluation. regulation and adoption through single harmonized studies. In 2002, Dr Levin created the Ontario Health Technology Advisory Committee (OHTAC), which continues to provide evidence based advice to government and the health system on adoption of non-drug health technologies and broader health system change through a transparent, objective and collaborative initiative representing key health system stakeholders.



#### Ms Catriona Ling Healthcare consumer

Catriona Ling and her husband Simon initially moved to Sydney from the UK in 1991. Whilst they have also lived in London, New York and Hong Kong, they have been settled in Sydney with their three daughters for the last 12 years. Catriona works as a part-time primary school teacher and has been the main carer for her oldest daughter Harriet, who was diagnosed with Ewing's Sarcoma in 2012.



Ms Harriet Ling Healthcare consumer

Harriet Ling was diagnosed with Ewing sarcoma presenting in her pelvic iliac crest at age 17, which then metastasised in later years. She has had continuous treatment with chemotherapy, numerous surgeries, radiation and fertility treatments since then. She is now about to turn 23, and finishing her science degree with ambitions to study medicine.



#### Uncle Charles (Chicka) Madden Gadigal Elder

Uncle Chicka is a respected Sydney Elder. He has lived in and around the Redfern and inner city area most of his life serving the Aboriginal community as Director or the Aboriginal Medical Service, member & representative of the Metropolitan Local Aboriginal Land Council, Director of the Aboriginal Hostels NSW and is a life member of the Redfern All Blacks. Along with being an active community leader, Uncle Chicka is also an important artist creating a number of ceramic sculptures and paintings inspired by his Gadigal country. He has been commissioned to create a number of works including a painting for St Vincent's Health Australia and an installation for the Redfern Community Centre's Elders Lounge in collaboration with Nicole Monks.



**Prof John Mattick AO** Executive Director, Garvan Institute of Medical Research

The Garvan Institute of Medical Research in Sydney houses one of the most advanced clinical genomics facilities in the world. Prof Mattick is best known for showing that the majority of the human genome is not junk but rather specifies a regulatory RNA network that directs the epigenetic trajectories of development. John has received many international honours and awards for his distinguished achievements and contributions to human genetic, genomic research and cancer research.



**Prof Bruce Neal** Deputy Executive Director, The George Institute for Global Health

Bruce is also the Prof of Medicine at the University of Sydney and Prof of Clinical Epidemiology at Imperial College London. Bruce completed his medical training at Bristol University in the UK in 1990 and spent four years in clinical posts. Prior to taking up his position at the Institute in 1999 he worked as an epidemiologist at the Clinical Trials Research Unit in Auckland, New Zealand, where he completed his PhD in Medicine. Bruce has a longstanding interest in the management of high blood pressure and diabetes and has played lead roles in multiple large-scale clinical trials. He also has a longstanding interest in the environmental determinants of chronic disease and the potential for changes in the food supply to deliver large, cost effective and equitable health gains. He launched the popular FoodSwitch smartphone application which is available in Australia and five overseas jurisdictions. He seeks to change the way that food is manufactured, retailed and consumed around the world using business and policy levers. Data, transparency, accountability, sustainability and collaboration underpin his research efforts.



#### Prof Michael Nilsson Executive Director, Hunter Medical Research Institute (HMRI), Newcastle

Prof Nilsson is one of very few senior specialists in rehabilitation medicine globally with a strong translational research platform in stroke and basic neuroscience, combined with specialist expertise in rehabilitation medicine. His research is focusing on mechanisms underpinning resilience, brain plasticity and neural repair and how these mechanisms are influenced by psychological stress. He is also investigating the effects of the environment on stroke recovery and stress tolerance in both animal models and clinical settings.



#### Dr Mark Parsons Neurologist, Royal Melbourne Hospital

Dr Mark Parsons has run many research projects in Stroke. He also chaired the Hunter New England Research Ethics Committee for 10 years. In 2015 he was diagnosed with acute leukemia and after one relapse and two bone marrow transplants he is in remission and back at work. He now has a unique perspective of modern medicine as a clinician, researcher, patient, and research participant.



**Prof Anushka Patel** Chief Scientist, The George Institute for Global Health and Cardiologist.

Anushka has a key role in developing and supporting strategic initiatives across all offices of the organisation globally. Her personal research interests focus on developing innovative solutions for delivering affordable and effective cardiovascular care in the community and in acute care hospital settings. She currently leads research projects relating to these interests in Australia and several other countries.



#### **Mr Geoff Roberts**

Deputy Chief Commissioner and Economics Commissioner & Interim District Commissioner for the Western City, Greater Sydney Commission

Geoff Roberts' role entails advising and assisting the Greater Sydney Commission on achieving the Minister of Planning's key priorities for the Commission, particularly the preparation of six District Plans across Greater Sydney and the review and updating of A Plan for Growing Sydney. Geoff is tasked with leading the development of metrics and to provide advice to the Minister for Planning on the Commission's economic narrative for metropolitan Sydney and its implementation into the District Plans and Metropolitan Plans.



#### Prof David Simmons

Prof of Medicine, Western Sydney University, Macarthur Clinical School

David is the Head of the Campbelltown Hospital Endocrinology Department, Chair of the Campbelltown Hospital Clinical Council and Director of the Diabetes, Obesity and Metabolism Translational Research Unit. Between 2007-2014, he was the lead diabetes consultant at Cambridge University Hospitals NHS Foundation Trust, before this Prof of Medicine at the University of Auckland and 1998-2002 was the Foundation Chair in Rural Health at the University of Melbourne. He has over 270 publications and has won several national and international awards for his work in diabetes epidemiology, diabetes in pregnancy and diabetes service development.



#### **Dr Norman Swan** Host The Health Report on ABC's Radio National & Tonic on ABC News24; Producer, Broadcaster and Investigative Journalist

Norman has won many awards for his work including Australia's top prize for journalism, the Gold Walkley. He was only the third person to be awarded the prestigious medal of the Australian Academy of Science and was given an honorary MD by the University of Sydney on its 150th anniversary. Norman trained in medicine in Scotland and paediatrics in London and Sydney before joining the ABC and has hosted many other programmes on radio and television.



**Prof Helena Teede** Executive Director, Monash Partners Chair, Academic Health Research Alliance

Prof Teede led the establishment and currently chairs the Australian Health Research Alliance across the AHRTC and CIRHs nationally. She has held leading roles in healthcare, research, translation, policy setting, and with the not for profit sector. She holds policy advisory roles and sits on the national NHMRC Research Committee. She is passionate about partnership and stakeholder engagement in healthcare improvement and research, as well as creating collaborative platforms for improving health outcomes.



**Dr Jane Thompson** Advocate for public involvement in dementia research

Dr Jane Thompson is an advocate for public involvement in dementia research. Her experience as a carer of her husband, Dr Alan Newsome, who died of Alzheimer's disease in 2007 led to her involvement in dementia research as an interested member of the public with a passion to improve the experiences of those affected by dementia. She was a founding member of Alzheimer's Australia's former Consumer Dementia Research Network which was created with the goal of supporting people with dementia, their carers and families to be actively involved in dementia research and knowledge translation.



Ms Sue Van President and CEO of the Wallace H. Coulter Foundation

Sue has fiduciary responsibility for the vision, strategic plan and operations of the Foundation. Sue is integrally involved in every aspect of its programs, from creation to implementation and establishing the criteria for success.

The Foundation continues Wallace's practice of providing risk capital for innovative initiatives through its grant programs. The Translational Research Partnership Program promotes academic translational research based in biomedical engineering. By implementing industry best practices, this process accelerates the translation of promising university innovations into practical advances that improve patient care. The Biomedical Societies Program supports leading medical societies to bring the latest education and standards of care to resource-limited countries. The Asian-American Pacific Islander Program focuses on building a consortium among organizations to establish one cohesive community to promote collaboration and partnership in civic engagement and health disparities.



### SPHERE Maridulu Budyari Gumal

The Sydney Partnership for Health, Education, Research & Enterprise

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# VIA ART

SPHERE 2017 Via Art will focus on multisensory, interactive and participatory artworks to support and complement the Symposium program; to challenge attendees' perceptions of the limitations of the human body, extending beyond the parameters of traditional health constructs. It aims to establish the arts as a form of environmental enrichment in healthcare innovation. The link between the arts and health will be brought to life throughout the Symposium's proceedings with captivating performances and artworks born of groundbreaking Australian creativity.

Leading audio-visual artist Dr Robin Fox has composed Australia's premiere performance of *Single Origin*, concerto for a laser beam as a spectacular conclusion to Day 1. Robin is renowned for his experimental work with human senses exploring the possibilities of mechanically-induced synaesthesia – a mingling of the senses in the brain. He has previously worked in association with the Australian Network for Art and Technology and the Bionic Ear Institute on the sound work *Interior Design: Music for the Bionic Ear*. In advance of the performance, Brendan St Ledger will play the baby grand piano at the Symposium evening networking cocktail event.

Australian artist and musician Dr Michaela Davies leads the Cyborg String Quartet and later asks the Panel to 'vandalise' a pillar of the Western musical canon, *Pachelbel's Canon in D*, using the electric muscle stimulation (EMS). Michaela's work with EMS explores the interface between technology, live performance and composition, and questions assumptions about agency both in musical performance and other contexts. During lunchtime, Symposium attendees can experience Dr George Khut's Mobile Mood Lab, an interactive art installation currently being trialled at the Children's Hospital at Westmead for its ability to ameliorate the effects of painful or anxiety-provoking procedures among children with brain injuries. The participatory exhibit syncs heart-rate controlled audio-visuals to its audience members, intended to create an environment for contemplation and reflection.

Mr Michael Hill's Angel Place soundscape, Forgotten Songs, will discretely extend into the City Recital Hall foyer to invite contemplation of the city's underlying landscape with the beauty, unexpectedness and unfamiliarity of the displaced birdsongs of the central Sydney area.

The finale to Via Art is *Where We Are*, an insightful, powerful theatre scripted by highlyacclaimed Australian playwright Dr Stephen Sewell and directed by Mr James Dalton. It will explore a patient's health crisis through the character Sharon, a war correspondent played by an internationally renowned special guest, with a supporting cast from NIDA. The concept was inspired by A.A. Gill's Essay *My National Health Crisis* in 'Lines in the Sand', Orion Books 2017 and written for the SPHERE 2017 conference session 'Public and patient involvement – Are we listening?'



Curated by Dr Alex Davies and Ms Sue Midgley UNSW Art & Design



## SINGLE ORIGIN Dr Robin Fox

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Single Origin is a new work by audio-visual artist Robin Fox; the third in his series of works for laser and sound that explores the possibilities of mechanically-induced synaesthesia. Beginning with Monochroma (2004) for a single green laser and developing into the stunning RGB Laser Show (2013) this new work sees significant development in the connection between the voltages that make sound and the voltages that cause the laser projector to describe the geometry of that sound. In previous works it was this relationship between sound and light that provided the basis for every moment of the show. This new work allows space for separation. Renowned for making unique, expansive and intense sound worlds (see releases on Editions Mego among other labels) Robin blends his split A/V personality in Single Origin composing what is essentially a concerto for a laser beam. The separated colour spectrum of the RGB show (where red, green and blue lasers were shot from separate projectors) is drawn together in a single RGB projector allowing for white laser light and all colour possibilities. This new audio-visual maelstrom from Australia's leading audiovisual artist needs to be seen to be believed.



Dr Robin Fox is a leading Australian audio-visual artist working across performance, exhibitions, public art projects and designs for contemporary dance. His laser works, which synchronize sound and visual electricity in hyper-amplified 3D space have been performed in over 50 cities worldwide. His work RGB LASER SHOW premiered at Mona Foma (Hobart) and has since featured at Tramway (Glasgow), Vivid Festival (Sydney), The Barbican (London), Berlin Atonal, MUTEK Tokyo, Bordeaux Cathedral among many other performances. His groundbreaking work with Chunky Move Dance Company contributed to the work Mortal Engine receiving a Helpmann award for best visual production and an honourable mention at the illustrious Prix Ars Electronica 2009. His art/science sound work Interior Design: Music for the Bionic Ear in association with ANAT and the Bionic Ear Institute was shortlisted for a Future Everything award in the UK 2011 and selected by the Paris Rostrum of Composers in 2012. In 2016 he became a founding director of MESS (Melbourne Electronic Sound Studio) a not for profit organisation dedicated to giving access to the entire history of electronic musical instruments. www.mess.foundation. He holds a PhD in composition from Monash University and an MA in musicology. The latter documents the history of experimental music in Melbourne 1975-1979.

Photo: Ms Ros O'Gorman

## COMPOSITIONS FOR CYBORG STRING QUARTET

Dr Michaela Davies

Dr Michaela Davies' work with electric muscle stimulation explores the interface between technology, live performance and composition, and questions assumptions about agency both in musical performance and other contexts. Compositions for Cyborg String Quartet harnesses the bodily convulsions produced by electrical impulses to control performers in a string quartet, who are literally shocked into playing their instruments. Two performers in the quartet are connected to a custom-built device which sends electrical impulses to their muscles, generating specific involuntary movements. The performers' bodies become a technological resource which is controlled by the musical score, executing complex rhythms and techniques which they would otherwise be unable to perform of their own volition. Canon (interrupted) asks the audience to 'vandalise' a pillar of the Western musical canon, Pachelbel's Canon in D. The watchers become the enactors of the performance, deciding when to sabotage or interject their own desires into the music. Using electric muscle stimulation to control the musician's muscles, the audience can disrupt the musician's control over their own limbs, deciding when and who gets shocked.

#### Dr Michaela Davies (second

from right) is an Australian artist and musician with a doctorate in psychology, and fuses these multiple disciplines in her work. Her work investigates sonic possibilities, human limits, and the nature of agency, using electric muscle stimulation and other methods to both obstruct and extend human capabilities. Over the last decade Michaela has amassed a catalogue of work around these themes, presented at galleries and festivals across the globe including the Museum of Contemporary Art Australia, the Berlin Institute for Cultural Inquiry, London V&A, Experimental Intermedia New York, Currents International New Media Festival, ISEA, Mona Foma Festival Hobart, and Sonica Festival UK where she was 2013 Artist in Residence. Michaela has received a Creative Australia Fellowship from the Australia Council for the Arts. and in 2015 her work was awarded an Honorary Mention in Prix Ars Electronica (Austria) for Digital Musics & Sound Art. Michaela's creative practice is informed by an interest in the role of psychological and physical agency in creative processes, and the liminal space between didactic execution and free interpretation inherent both in musical performance and beyond.



## **VIA ART**

## WHERE WE ARE

Written by Dr Stephen Sewell Directed by Mr James Dalton, Performed by a special guest with NIDA students

For a patient with a serious illness, the medical system can be disorienting, confronting, humiliating and disempowering. Not to say just plain rude. While underresourced and over-extended medical staff can succumb to the constant barrage of desperate people looking for hope and treatment by adopting the indifference of a cattle-herder, patients themselves can be alternately hostile and despairing as they face some of the most serious issues and questions of their lives. NIDA is proud to be able to present a dramatization of the patient's experience as we follow Sharon, a war correspondent immersed in her last epic struggle, this time with cancer - played by an internationally renowned special guest. By turns funny and tragic, Where We Are, written by one of Australia's finest writers, Dr Stephen Sewell, the Head of Writing for Performance at NIDA, explores a journey that ultimately everyone takes, as the sense of our invincibility collides with the truth of our own mortality.







Dr Stephen Sewell is Head of Writing for Performance at NIDA, and is one of Australia's most celebrated and experienced writers. He has won great popular and critical acclaim as a playwright, screenwriter and novelist, as well as directing for both theatre and film over a career that has spanned 30 years. Stephen chaired the Australian National Playwrights Centre for a number of years, is the recipient of numerous awards and his work has been performed in most major Australian theatres and in New Zealand, the US, the **UK and Europe** 

Mr James Dalton is a theatremaker whose work has featured in the Sydney Film Festival, Underbelly Arts Festival and Prague Quadrennial. A current PhD candidate with the Department of **Theatre and Performance Studies** at the University of Sydney, James's area of interest is the dialogue between health and performance, with current research centred on the performativity of medical students as they enter into clinical practice. He is associated as a researcher with the Sydney Arts and Health Collective.

With special guest.



## MOBILE MOOD LAB

Dr George Khut

Dr George Khut's works (Heart Library and Bright Hearts) invite visitors to explore connections between stress, relaxation, breathing and heart rate, using biofeedback controlled interactive sounds and visuals. Visitors entering the *Mood Lab* lay down on a specially-designed bed, and look up to see an image of themselves floating on the ceiling in a pool of brightly coloured lights. Wireless heart rate sensors record changes in heart rate influenced by stress and relaxation responses – these control the colour, texture and sound of the work: red for faster rates, changing to orange, yellow, green and blue for decreases in heart rate. The experience is immersive, intimate and mesmerising, accompanied by a live soundtrack of your own heart beat, and sounds that rise and fall with changes in your breathing and heart rate.



Dr George Poonkhin Khut is an artist and interaction-designer working across the fields of electronic art, interaction design and arts-in-health. He lectures in art and interaction design at UNSW Art & Design. George's body-focussed interactive and participatory artworks use biosensing technologies to re-frame experiences of embodiment, health and subjectivity. Research interests include tangible and embodied interaction, participatory art and Arts-in-Health. Photo: Mr Max Doyle Art is many things to every culture. In the words of **Ms Ellen Dissanayake**:

"ART IS A NORMAL AND NECESSARY BEHAVIOUR OF HUMAN BEINGS AND LIKE OTHER COMMON AND UNIVERSAL CUPATIONS SUCH AS TALKING, WORKING, EXERCISING, PLAYING, SOCIALISING, LEARNING. LOVING. AND CARING. GNISED. ENCOURAGED BE RECC SH ID DEVELOPED EVERYONE. AΝ IN VIA ART. EXPERIENCE IS HEIGHTENED. ELEVATED, MADE MORE MEMORABLE AND SIGNIFICANT."

## FORGOTTEN SONGS

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Mr Michael Thomas Hill

Forgotten Songs commemorates the songs of fifty birds once heard in the central Sydney area. An interplay of past and present, large and small, predator and prey, Forgotten Songs engages the listener with the beauty, unexpectedness and unfamiliarity of these displaced birdsongs. The Angel Place installation explores how Sydney's birds have evolved and adapted to co-exist with increased urbanisation – inviting contemplation of the city's past, its underlying landscape through a unique aural experience. SPHERE 2017 Via Art brings the bird calls into the foyer of the City Recital Hall to extend the effect of this biophilic design for the built environment. www.cityartsydney.com.au/artwork/forgotten-songs

#### Mr Michael Thomas Hill has

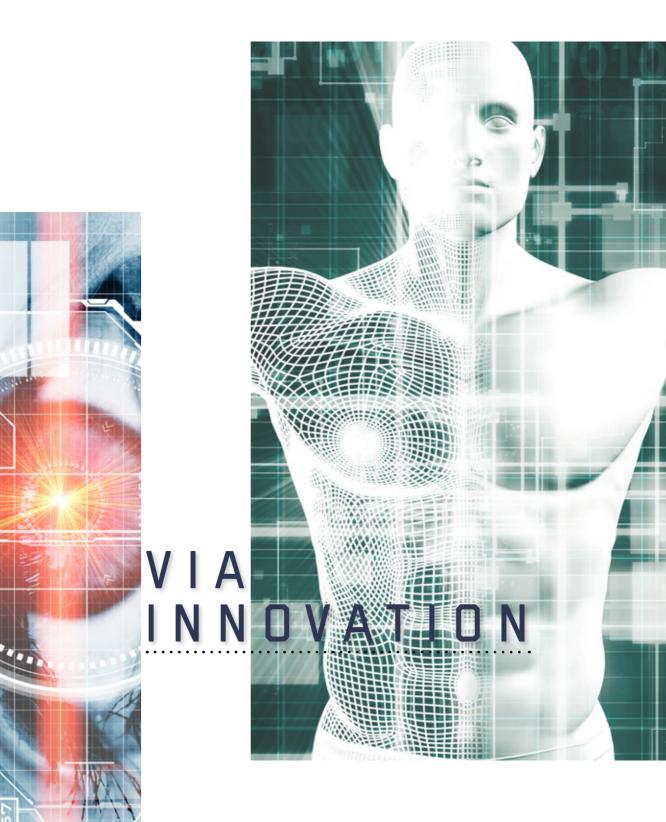
developed media installations and programs for exhibitions since 1998. He founded Lightwell in 2004 – an art and media design studio based in Chippendale that combines new technologies with art to make responsive environments for museums, cultural centres and public spaces – including the Australian War Memorial, Australian Museum, National Sports Museum, and the National Archives.

#### **Mr Fred Van Gessel** has been a wildlife sound recordist for over 40 years. His sound library contains well over 27,000 cuts of birds, animals and insects with 570 species of Australian birds represented in the collection. He is a foundation member of the Australian Wildlife Sound Recording Group (AWSRG) and editor of their journal AudioWings.

COCKTAIL AND NETWORKING EVENT

Mr Brendan St Ledger

**Mr Brendan St Ledger** is one of Australia's finest pianists with a beautifully unique touch and sensitivity on his instrument of choice. Brendan's extensive recording and touring credits include some of the greats of Australian Pop, Soul, Funk and the Dance Floor; the likes of Wendy Matthews, Marcia Hines, Lily Dior, Glenn Shorrock and Christine Anu. Brendan is also as a composer, arranger and producer for television, film and advertising with a background in orchestral and big band production.



In healthcare, as with many industries, start-up companies foreshadow the new horizon ahead of the mainstream community.

Dynamic, agile, risk-taking and innovative.

SPHERE 2017 Via Innovation will showcase the best and brightest NSW lead start-ups that will disrupt the future of healthcare. This cosy collection of Entrepreneurs and Innovators will create the environment for you to discuss new technologies and new ideas with the creators themselves.

Be sure to drop in and take a look into our future!

:

We are delighted that the following companies have confirmed their participation in the SPHERE 2017 Via Innovation showcase:

## SPHERE 2017 Via Innovation

Open during all breaks in the Symposium speaking program

22 & 23 November Function Room, Level One, City Recital Hall Sydney

:

The Hearing CRC	SpeeDx	Thru-Fuze Orthopaedics	Sound Scouts
Nano-X	Kico Knee Innovation Company	CancerAid	BCAL Diagnostics
BENS Group, MARCS Institute	Research4Me	Genome.One	And more

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# VIA INDUSTRY

SPHERE 2017 Via Industry is our formal industry engagement and networking event, taking place over breakfast on Day Two of the Symposium.

Early risers will hear about the emerging national landscape and the successful and continuing NSW and Commonwealth Government initiatives designed to support entrepreneurship. A number of NSW Start Ups will share their ups and downs of success and we will hear the latest from the fund managers for the Biomedical Translation Fund.

There is something for everyone, so come along, learn something new and make new contacts.

## SPHERE 2017 Via Industry Networking Event

7:00-8:55am 23 November Level Three, City Recital Hall Sydney

## **VIA INDUSTRY BREAKFAST PROGRAM**

7:00	Light breakfast and networking		
7.30-7.35	<b>Welcome</b> Mr Michael Still MBA, SPHERE Council Member; NSW Health Medical Device Fund Board Member; Chair, South Eastern Sydney Local Health District Board		
7:35-7:45	Introduction to National MTP Connect initiatives Ms Sue MacLeman, Managing Director and Chief Executive Officer, MTPConnect		
7:45-7:55	Introduction to NSW Health initiatives Ms Anne O'Neill, Associate Director, NSW Office for Health and Medical Research, Ministry of Health		
7:55-8:10	<b>Lessons Learned from the coalface</b> Three organisations will share their experiences and journey Dr Ilana Fein, CEO Nano-X   Dr Dharmica Mistry, BCAL Diagnostics   Prof William Walsh, University of New South Wales		
8:10-8:40	Panel discussion: What is the marketplace expecting from entrepreneurs? Chair: Ms Sue MacLeman, MTPConnect   Ms Petra Andren, Cicada Innovations   Mr Chris Nave, Brandon Capital   Ms Alison Gartner, Bioscience Managers   Mr Paul Kelly, One Ventures		
8:40-8:55	Informal networking		
9:00	Plenary sessions commence in the main auditorium on level one		

## VIA INDUSTRY SPEAKERS

#### **Mr Michael Still MBA**

SPHERE Council Member; NSW Health Medical Device Fund Board Member; Chair, South Eastern Sydney Local Health District Board

Michael Still has enjoyed a 30 year career in investment banking, corporate finance, equity investment and infrastructure in Australia and globally.

As well as being engaged in a range of banking and business roles he has led infrastructure and property companies as well as infrastructure projects including Public Private Partnerships, social infrastructures and economic infrastructures.

Michael has been an adviser to governments, offshore corporates and investment funds on strategic ownership and financing issues across many industries and asset types. He brings to bear significant experience in dealing with equity investors and debt financiers globally.

Michael is Chairman of the South Eastern Sydney Local Health District, board member of the New South Wales Cancer Institute and is a Committee Member of the Medical Devices Fund Expert Panel (NSW Govt). He is also a director of the Silverchain Group and the Silverchain Foundation. He holds a Masters in Business Administration from the Macquarie graduate School of Management.

### **Ms Sue MacLeman**

Managing Director and Chief Executive Officer, MTPConnect

Ms Sue MacLeman has more than 25 years' experience as a pharmaceutical, biotechnology and medical technology executive with roles in corporate, medical, commercial and business development at Schering-Plough Corporation (now Merck), Amgen, Bristol-Myers Squibb and Mesoblast Ltd. Sue has also served as CEO and Board member of several ASX and NASDAQ listed companies in the sector and is currently a non-executive director at RHS Ltd., veski and Oventus Medical Ltd.

Sue has been recognised for her leadership with BioMelbourne Network's 2017 Women in Leadership Award.

### **Ms Anne O'Neill**

Associate Director, NSW Office for Health and Medical Research, Ministry of Health

Ms Anne O'Neill is a health and medical research professional with over 20 years' experience in the health, medical research and policy sectors. She has a proven track record of managing hospital research, administering and developing the State's medical research policies and programs and executing strategies to achieve greater impact from NSW funding for health and medical research. She has a deep understanding of the sector, extensive networks and has particular strengths in engaging stakeholders and facilitating collaboration.

Anne is passionate about the role of government in building the innovation workforce of the future and developing non-traditional career opportunities for early to mid-career researchers.

Anne O'Neill is Associate Director of the NSW Office for Health and Medical Research for the Ministry of Health and Member of the Institute of Public Administration Australia (NSW) Women's Leadership Network Committee.

### **Prof Bill Walsh**

Professor of Medicine, University of New South Wales & Director of Surgical & Orthopaedic Research Laboratories, Prince of Wales Hospital

Prof Walsh's research lies at the interface between implanted materials and the connective tissues of the body as it relates to orthopaedic, plastic and reconstructive and vascular surgery. This includes both autograft, allograft and synthetic biomaterials and understanding and improving these materials in areas of clinical need. The foundation of his research interests centre on understanding the biology and biomechanics of connective tissues during healing, age and disease; this involves research techniques from the macro to molecular level. In 2015 Bill received a Medical Devices Fund grant for his technology Thru Fuze an innovative new spinal fusion device that is simpler and cheaper than existing technology and avoids the need for more invasive surgery and bone grafts.

#### Dr Dharmica Mistry Chief Scientist BCAL Diagnostics

Dr Dharmica Mistry is the BCAL Diagnostics senior scientist. Dharmica holds a BSc (Hons) from Sydney University, majoring in Microbiology, and has completed a PhD at Macquarie University that was based on examining the association of lipids in hair and serum with the presence of breast cancer. Dharmica is an inventor on one of the Company's founding patents and manages the scientific operations of the company. Dharmica has worked in the Australian biotechnology industry since 2007. In 2015 Dharmica graduated with a distinction from the NSW Health Medical Devices Commercialisation Training Program. In 2016 Dharmica was the recipient of the "NSW Young Woman of the Year" award for which she was nominated by the Minister of Health, Jillian Skinner. She was also announced as Young Executive of the Year (2016) in Australia by the Australian Financial Review (AFR) Boss Magazine.

## Dr Ilana Feain

Founder and CEO of Nano-X

Dr Ilana Feain is the founder and CEO of Nano-X where she leads the innovation and commercialisation of the Ruby radiotherapy device. Ilana is a world-renowned astrophysicist and prior to joining Nano-X she was the Project Scientist for the Australian Square Kilometre Array Pathfinder Telescope. Ilana has an outstanding career in physics, radio astronomy, medical physics and entrepreneurship. She was an Inaugural L'OREAL Australian Women in Science Fellow. Ilana completed the MDCTP in 2014 and in 2016 Nano-X received \$2.58 from the NSW Medical Devices Fund.



MTPConnect is a not-for-profit organisation which aims to accelerate the rate of growth of the medical technologies, biotechnologies and pharmaceuticals sector to achieve greater commercialisation and establish Australia as an Asia-Pacific hub for MTP companies. It was formed in November 2015 as part of the Federal Government's \$250 million Industry Growth Centres Initiative.

MTPConnect is an independent and trusted voice, calling for change to support the sector. It fosters collaboration and competition, aggregates existing knowledge and shares it with the broader sector. It also jointly funds projects that address the Sector Growth Priorities and the constraints and gaps identified in the sector.



A strong and vibrant research enterprise is important to NSW. Research can help deliver better treatments and interventions, improve health services delivery and improve clinical and population health outcomes.

# THANKS

## We would like to thank the Organising Committee of the SPHERE 2017 International Symposium:

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Prof Melissa Knothe Tate Paul Trainor Chair of Biomedical Engineering, University of New South Wales

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