

NSW Smart Sensing Network Ageing Grand Challenge Forum 2021 Thursday 18 February 2021 | 9.00am – 5.30pm

As Australian society ages, what role can technology play – specifically advances in smart sensing – to ensure we age well both at home and in aged care settings.

Australia's ageing population is predicted to rise to 22% by 2056 and the aged care sector faces increasing pressure to provide transparent, consumer centred, and high-quality care. The NSSN Ageing Grand Challenge Forum will bring together researchers, government and industry stakeholders to collaboratively devise innovative solutions.

The morning session will provide an opportunity to hear from government and industry on the challenges they face in delivering services to an ageing population. Across three panel sessions, we will ask what the problems and gaps are and where innovation can lead to better health outcomes and lower costs.

In the afternoon, a “think tank” format will bring stakeholders together to jointly devise practical, innovative solutions. Our objective is to form collaborative R&D projects capable of securing government, industry and NSSN funding.

To register for this event, please [click here](#).

Hosts

Professor Benjamin Eggleton, Co-Director, NSW Smart Sensing Network

Ben is the Director of The University of Sydney Nano Institute. He also currently serves as co-Director of the NSW Smart Sensing Network (NSSN). Eggleton was the founding Director of the Institute of Photonics and Optical Science (IPOS) at the University of Sydney and served as Director from 2009-2018. He was previously an ARC Laureate Fellow and an ARC Federation Fellow twice and was founding Director of the ARC Centre of Excellence for Ultrahigh bandwidth Devices for Optical Systems (CUDOS) from 2003-2017.

Eggleton is the author or co-author of more than 480 journal publications, including Nature Photonics, Nature Physics, Nature Communications, Physical Review Letters and Optica and over 200 invited presentations. His journal papers have been cited 19,000 times according to web of science with an h-number of 66 (86 in google scholar). Eggleton is a Fellow of the Australian Academy of Science (AAS), the Australian Academy of Technology and Engineering (ATSE), the Optical Society of America and IEEE. He is Editor-in-Chief of APL Photonics.



Scientia Professor Justin Gooding, Co-Director, NSW Smart Sensing Network

Justin is currently an ARC Australian Laureate Fellow, the co-director of the Australian Centre for NanoMedicine and the co-director of the New South Wales Smart Sensing Network. He is a Fellow of the Australian Academy of Science, the International Society of Electrochemistry, the Royal Society of New South Wales, The Royal Australian Chemical Institute and the Royal Society of Chemistry. He is the inaugural editor-in-chief of the journal ACS *Sensors*.



He has published over 370 research papers including Nature Nanotechnology, Nature Biotechnology, Nature Immunology, Nature Communications and Science Advances. He has also authored 14 patents and one textbook. His papers have been cited more than 19000 times and his H-index (Scopus) is 68. He has won numerous awards including Eureka Prizes in Scientific Research and Mentoring of Young Researchers, the Faraday Medal of the Royal Society of Chemistry and the Elsevier Biosensors and Bioelectronics Award. He leads a research team of over 40 researchers interested in surface modification and nanotechnology for biosensors, biomaterials, electron transfer and medical applications. Aspects of his research have been commercialized through start-up companies.

Opening address

The Hon. Gabrielle Upton MP, Parliamentary Secretary to the Premier

Gabrielle was re-elected for a third term as the Member for Vaucluse at the March 2019 NSW Election and was appointed Parliamentary Secretary to the Premier. Gabrielle previously served as Minister for the Environment, the first female NSW Attorney General, Minister for Family & Community Services and Minister for Sport & Recreation. As Parliamentary Secretary to the NSW Premier, Gabrielle has been tasked by the Premier to lead the recent initiative to accelerate R&D in NSW.

Gabrielle began as a banking and finance lawyer at Freehill, Hollingdale & Page and then worked in corporate finance at Deutsche Bank and Toronto Dominion Bank in New York. She served as Deputy Chancellor of the University of New South Wales from 2006 until 2009. Gabrielle has a BA LLB from the University of New South Wales, a MBA from the Stern School of Business at New York University and is a Fellow of the Australian Institute of Company Directors.



Keynote speakers

Dr Jill Freyne, Deputy Research Director, CSIRO e-Health Research program

The AEHRC is the leading national research facility applying information and communication technology to improve health services and clinical treatment for Australians. Jill has significant research experience in the development and validation of digital health services, lifestyle interventions, and recommender systems.

Jill has worked with Australian and International industry partners to devise engaging and sustainable health technology solutions, aimed specifically at encouraging individuals to change the way that they engage with their health. Through clinical trials the technologies have been evaluated to understand and quantify their impact on individuals, care teams and carers, thus contributing to the body of evidence required to see large scale adoption and innovation in digital health service delivery.



Larissa Briedis, Strategic Policy, Telstra Health

Larissa leads policy for Telstra Health to inform its strategy, and advocate for the positive role of digital health to improve health systems and outcomes. Her goal is to achieve Telstra Health's vision of becoming the leading provider of digital health solutions that shape a connected future for healthcare. Prior to Telstra Health, Larissa took on several advisory, management and executive roles at the Australian Digital Health Agency.

Larissa is an expert on eHealth legislative and policy frameworks- an exciting area of policy that paves the way for comprehensive improvement in the way healthcare is delivered. She is interested in the emerging challenges of information governance in healthcare, but more broadly as a policy issue for public and private sectors alike.



Moderators

Sally-Anne Williams, CEO, Cicada Innovations

Sally-Ann leads Australia's pioneering deep tech incubator supporting companies solving the world's most pressing problems through science & engineering. Nurturing hundreds of visionary deep tech innovators to validate, commercialise and scale high impact technologies globally across MedTech, HealthTech, AgTech, FoodTech, Clean Energy, AI, Manufacturing 4.0 and more.

Prior to joining Cicada Innovations, she spent over 12 years at Google as an Executive Program Manager on the engineering team leading work on R&D collaborations with universities, start-up and entrepreneurship engagement and pioneering work on CS & STEM education including building world first collaborations delivering national transformation.

Sally-Ann has been involved in driving national engagement and change strategies in innovation & entrepreneurship, Computer Science and STEM education as a member of the COAG STEM Partnership Forum and contributed to the foundation of StartupAUS, a non-profit with a mission to transform Australia through technology entrepreneurship. She has led several cross-sector working groups to drive change both in policy & cultural transformation needed to grow a thriving technology driven economy and served on 4 University Industry Advisory Boards in the engineering and computer science departments.



Nicola Ware, CEO, Ramsay Hospital Research Foundation

Nicola currently leads the Innovation, Integration, Research & New Models of Care team within Ramsay Health Care Australia. Nicola is responsible for the development of strategic initiatives that are targeted toward the improvement of patient outcomes and experience as they receive treatment in a Ramsay Hospital or in one of Ramsay's community networks.

Prior to this, she was the CEO of the Ramsay Hospital Research Foundation, where she was responsible for the management of clinical trials, funding and developing suitable research projects and the provision of support for the establishment of research.

Prior to joining Ramsay Health Care, Ms Ware was the Chief Operating Officer of Neuroscience Research Australia.



Kathy Connell, Senior Director New Ventures Australia and New Zealand (ANZ), Johnson & Johnson Innovation

Kathy is the Senior Director of New Ventures, Australia and New Zealand (ANZ) for Johnson & Johnson Innovation, West North America, ANZ responsible for implementing the Johnson & Johnson external partnerships and growth strategy across ANZ. As the technology scout for the pharmaceutical, medical device and consumer health businesses, Kathy is passionate about encouraging and building global collaborations to deliver new and disruptive healthcare solutions for people everywhere.

Kathy has a clinical, academic and legal background. She started her commercial career as the VP of Global Business Development for an Australian medical device and digital healthcare company.

Prior to joining Johnson & Johnson Innovation, Kathy was the head of Innovation and Investment for Janssen ANZ, held business development roles at Sanofi to drive in-licensing, out-licensing and acquisition activities for the ANZ and Asia Pacific businesses across the pharmaceutical and consumer health sectors. Kathy is a recognised leader and advocate for diversity and inclusion in the life sciences sector. Kathy has a clinical, commercial and legal background with more than 25 years cross-sector experience including in the pharmaceutical, biotechnology, academia and hospital industries.



Panel speakers

Anne O'Neill, Director, Enterprise and International Partnerships, Office for Health and Medical Research, NSW Health

Anne has over 20 years' experience in the health, medical research and policy sectors. Anne is responsible for leading the development and implementation of major policies and programs to enhance medical research capacity in NSW and raise the profile of NSW research and development nationally and internationally.

Anne is responsible for the NSW Medical Device Fund and NSW Medical Device Commercialisation Training Program. Both programs have been critical to accelerating the development of NSW intellectual property and the next generation of innovators and entrepreneurs in NSW.



Dr Benjamin Schmitt, Head of Research and Clinical Translation - Diagnostic Imaging, Digital Health Asia-Pacific, Siemens Healthineers

Ben previously held the role of Digital Solutions Expert for AI and Digital Archiving where he was responsible for the successful introduction of Siemens Healthineers' AI solutions, the AI-Rad Companion and the AI-Pathway Companion, to the ANZ market.

Ben has a long track record in scientific research for imaging and digital health having held roles as Head of Collaborations for Siemens Healthineers in Australia and New Zealand, in which he oversaw all research partnerships and R&D activities in the region for more than 5 years and working as a research scientist / application developer for advanced medical imaging and MRI applications at the Siemens headquarter in Erlangen, Germany.



Ben's area of expertise and professional experience are in digital health business and in the management of academic/industry research partnerships in medical imaging and AI with a strong background in method development for medical imaging, especially Magnetic Resonance Imaging (MRI). Ben also holds 8 patents relating to medical imaging technology and artificial intelligence.

Professor Branko Celler, Director and Advisor, Engineering and Regulatory Matters, SYMBYX Biome

Branko is a Fellow of the Australian Academy of Technology and Engineering, a Fellow of the IEEE and a Foundation Fellow of the Australian College of Health Informatics. He has an international reputation in biomedical Engineering, bioinstrumentation and bioinformatics and is widely considered a pioneer and innovator in the development of telehealth technologies for the management of patients with chronic conditions at home.

Branko wrote and led the \$5m CSIRO National Telehealth Trial that demonstrated a 46% reduction in the rate of MBS expenditure, a 53.2% reduction in hospital admissions, a 70-76% reduction in length of stay and a reduction in mortality of 45%. This study has had a profound impact on government policy and has received international recognition.



Neina Fahey, Code of Practice and Project Manager, Medical Technology Association of Australia (MTAA)

Neina facilitates and manages the monitoring and compliance activities of members with the Code of Practice, projects, and committees/forums relating to Cyber Security, Clinical Trials, Research & Development, and Connected Healthcare.

Before starting at MTAA, Neina worked as a nurse for 8 years in different speciality areas at St George and Westmead Children's Hospital.



Trent Gifford, Commercial Director, Tunstall Australia

Trent is an experienced commercial and operations executive with over 20 years of leadership experience across a wide variety of industries. He currently leads the Clinical, Sales, Account Management, Marketing and Events business units within Tunstall APAC and is focused on ensuring that all of Tunstall's client groups across the Asia Pacific region realise value across all of Tunstall's products and services. This customer focus approach extends to providers, community groups, carer networks and the families & friends of those that rely on the Tunstall service.



Professor Corinne Caillaud, Charles Perkins Centre

Corinne is a Professor of Physical activity and health at the University of Sydney. Corinne is the co-chair of the "Nano Sensors & Diagnostics" cluster within the university Nano Health initiative.

Director of the "Pacific Teen's Health" at the Charles Perkins Centre, Corinne brings her expertise in the study of physical activity and exercise and their impact on health outcomes to nano health. She has worked with a number of different population groups including ageing people to understand how physical activity and exercise can contribute to healthy ageing and maintaining autonomy.



Corinne leads her teams through innovation and creates new technology-supported solutions that help people self-monitor their health. She served for six year as associate Dean Education for the University of Sydney School of Health Sciences and provided academic leadership to curriculum development across seven health disciplines.

Dr. Thomas Arend, Senior Director Health Tech Products, Johnson & Johnson

As the Global Head of Product on the Johnson & Johnson Digital Health Technology team Thomas reimagines how health and well-care are accessed, delivered, managed, and experienced at scale. Together with his team, he turns advances in technology into products that have the potential to create a dramatic positive impact for many people in the world and to help us live longer, healthier, happier lives.

Thomas started his own venture in 2014 after working with many international start-ups as an advisor and mentor. Before becoming an entrepreneur, he was leading Airbnb's and Twitter's international product efforts, launched Firefox on Android as Mozilla's Head of Mobile, built delightful global products at Google, and led strategic initiatives at SAP and for IBM Research. He led product teams at Facebook to help the company tap into the next billion global users and to drive product innovation based on advances in A.I. Thomas is a keynote speaker, lecturer, and mentor. He has been working with Singularity University as an executive product advisor.



Dr Dan Grant, Managing Director and CEO, MTP Connect

Dr Dan Grant has spent more than 25 years in senior roles in the pharmaceutical, higher education and medical research sectors. Prior to joining MTPConnect in 2018, Dr Grant was the inaugural Pro Vice Chancellor for Industry Engagement at La Trobe University where he had oversight of the university's innovation, commercialisation and industry engagement activities.

He was also the Senior Director and Head of Pfizer's External Research and Development Innovation group for ANZ/Singapore and their head of open innovation. Dan also sits on the Expert Advisory Panel for the Stem Cell Mission. He has a PhD in Cardiovascular Physiology and an MBA.



Young Juhn, CEO, Wellysis Corp. & Principal Consultant, Samsung SDS.

Juhn has over 25 years of healthcare IT business experience in US & South Korea. Currently holding CEO role at Wellysis Corp. which is a spinoff company from SAMSUNG SDS.

Before his current role as CEO, he used to lead a Global Digital Healthcare business in Samsung SDS where Samsung SDS decided to spinoff the business unit to quickly respond to fast changing digital healthcare industry and to fully utilize Samsung's cross business technical capabilities (i.e. BioProcessor from Samsung Semi-conductor, Clinical Data from Samsung Medical Center, AI platform from Samsung SDS Labs, Personal Devices from Samsung Electronics etc.)



He has extensive healthcare IT experience architecting large scale EHR such as Epic and Cerner, Ancillary systems, Hospital management systems, Claims Systems, as well as enterprise systems such as ERP, SCM, CRM etc. His previous experience includes working as a Director of business strategy group for Kaiser Permanente (10 years), as well as served as ARB member for innovation lab. He also worked for Global e-business group at Johnson & Johnson (over 10 years) and launched many multi-global projects for Pharmaceutical, Medical Device & Consumer business sector. Prior to J&J he also started a venture company developing web presence for over 300 hospitals.

Scientia Professor Nigel Lovell, Head, Graduate School of Biomedical Engineering, UNSW

Nigel Lovell received the B.E. (Hons) and Ph.D. degrees from UNSW Sydney, Australia. He is currently at the Graduate School of Biomedical Engineering UNSW Sydney where he is the Head of School and Director of a recently established Institute of Health Engineering. He has authored 300+ journal papers and been awarded over \$95 million in research and development funding. Over his career he has mentored 70 PhD students and delivered more than a hundred keynote presentations. He is a Fellow of seven learned academies throughout the world including the IEEE and ATSE.



His research work has covered areas of expertise ranging from cardiac and retinal modeling, medical informatics and data analytics especially related to telehealth technologies, biological signal processing, and visual prosthesis design. Through a spin-out company from UNSW, TeleMedCare Pty. Ltd., that he co-founded he has commercialised a range of telehealth technologies for managing chronic disease and falls in the older population. For 2017 and 2018 he was the President of the world's largest biomedical engineering society – the IEEE Engineering in Medicine and Biology Society.

Facilitators

Kirsty de Garis, Deputy Head of Curation, TEDxSydney

Kirsty was educated in Sydney and London and started her career as a journalist at the UK's The Observer. She returned to Australia and worked as an interviewer at The Australians at War Film Archive, in association with The National War Memorial, Canberra. She then produced and directed the feature documentary film, Dominick Dunne: After the Party (2008).

In 2012, Kirsty turned her storytelling and production skills to TEDxSydney, where she has worked with dozens of TEDx and TEDx speakers as they develop their ideas. She works closely with speakers to script, memorise and rehearse their talks, in order to deliver without notes in front of a thousand-strong live audience.

Kirsty trains individuals and teams in presentation skills and storytelling, and a passionate storyteller and facilitator.



Steve Pozel, Creative Director, Steve Pozel Projects

Steve's career has covered areas including design, digital media, publishing, education and enterprise. His research and work in creativity, design-led innovation and leadership development has been the catalyst to consult to a broad range of industry from banking and telecommunications to mining and property development, and from cultural and community organisations to State and Federal Governments.

Steve runs experiments on Art and Mindfulness with several galleries worldwide. His practice in cultivating and practising attention brings a depth and fidelity to the outputs of innovation. Prior to joining the Curious Collective, Steve was CEO and Creative Director of the Australian Design Centre for over a decade.



For more information about the event, please contact NSSN MedTech Lead
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