



EMCRN
connecting researchers at ECU



SYMPOSIUM 2024



21 NOVEMBER 2024
JOONDALUP BUILDING 32

Time	Program		
9.00-9.05am	Welcome by ECU Early and Mid-Career Researcher Network (EMCRN) Committee Dr Zulqarnain Gilani, Senior Lecturer, School of Science (EMCR Symposium Sub-committee Co-Chair) Dr Ross Hollett, Lecturer, Arts and Humanities (EMCR Symposium Sub-committee Co-Chair)		
9.05-9.15am	Welcome by ECU Deputy Vice-Chancellor (Research) Professor Caroline Finch AO		
9.15-9.25am	Welcome by ECU Vice-Chancellor Professor Clare Pollock		
9.25-10.25am	Session 1 Presentations	Presenter	School
	Zinc-Air Batteries: Safer and Efficient	Dr Muhammad Rizwan Azhar	Engineering
	What well-being means to me? Students perceptions of well-being and well-being programs	Dr Amanda Madden	Kurongkurl Katitjin
	The final frontier? How we are using 'brainpower' to improve recovery after Anterior Cruciate Ligament Reconstruction (ACLR)	Dr Myles Murphy	Medical and Health Sciences
	The feminist narrative: analysing the location of action	Dr Catherine Gough-Brady	Arts and Humanities
	ESG News based Public Sentiment, Media Attention, and Stock Price Crash Risk	Dr Kesara Prabhashwary Hewage	Business and Law
10.25-10.50am	Morning Tea		
10.50-11.50am	Session 2 Presentations	Presenter	School
	Transforming the News: Assessing the Impact of Generative AI on Journalism Practices and News Production	Dr Steinar Ellingsen	Arts and Humanities
	Advancing practice: Investigating the role of clinical supervisor training within mental health nursing	Dr Jennifer Hamilton	Nursing and Midwifery
	Integrating nature-based carbon sequestration into asset pricing models	Dr Saiyidi Mat Roni	Business and Law
	Slow proliferation of BAP1-deficient uveal melanoma cells is associated with reduced S6 signaling and resistance to nutrient stress	Dr Vivian Chua	Medical and Health Sciences
	The Underground Rivers: An Aboriginal-devised framework for community service provision in remote WA	Ms Janelle Caddy	Kurongkurl Katitjin
11.50-12.50pm	Guiding the Next Generation: Leveraging AI for Academic Excellence and Ethical Practice - Panel and Q&A Panel Members: <ul style="list-style-type: none"> • Professor Zach Aman, School of Engineering, UWA • Associate Professor Gilles Gignac, School of Psychological Science, UWA • Dr Celeste Rodriguez Louro, Director, Language Lab, UWA • Associate Professor Stacey Reinke, Associate Dean Teaching and Learning, School of Science, ECU • Associate Professor Deb Strickland, Graduate Research, ECU 		

Time	Program		
12.50-1.30pm	Lunch		
1.30-2.30pm	Session 3 Presentations	Presenter	School
	Fine-tuning performance with dopamine	Dr Li Ann Leow	Arts and Humanities
	Virucidal and Bactericidal Properties of nano-formulation of Tea Tree Oil against Respiratory Pathogens	Dr Rina Wong	Medical and Health Sciences
	Trade union responses to technological change: a literature review	Dr Alexis Vassiley	Business and Law
	Closing the Nurse Manager Support Gap: Why Tailored Support Strategies are Essential to Enhance Nurse Managers' Intention to Stay in Australian Health Services	Dr Martina Costello	Nursing and Midwifery
	Quantifying Elements of Contemporary Fat Discourse: The Development and Validation of the Fat Attitudes Assessment Toolkit	Dr Patricia Cain	Arts and Humanities
2.30-2.45pm	Break		
2.45-3.45pm	Session 4 Presentations	Presenter	School
	Microbes And Brain: Exploring How Age, Sex, And Preclinical Alzheimer's Stages Alter Microbial Communities	Dr Binosha Fernando	Medical and Health Sciences
	Promoting health literacy and awareness of low energy availability through digital education for the Australian dance community	Dr Joanna Nicholas	Western Australian Academy of Performing Arts
	An Updated Social Media Users' Crisis Response Framework: The role of Online Brand Advocacy and Online Brand Detraction	Dr Violetta Wilk	Business and Law
	Setting the agenda for integrating exercise and nutrition into cancer care: Application of the Nominal Group Technique	Dr Annemarie De Leo	Medical and Health Sciences
	Converting Carbon Dioxide Gas into Useful Chemicals	Dr Magdalena Wajrak	Science
3.45-4.15pm	Awards (Building 32 foyer)		

GUIDING THE NEXT GENERATION: Leveraging AI for Academic Excellence and Ethical Practice

Panel Members

- Professor Zach Aman (UWA)
- Associate Professor Gilles Gignac (UWA)
- Dr Celeste Rodriguez Louro (UWA)
- Associate Professor Stacey Reinke (ECU)
- Associate Professor Deb Strickland (ECU)

Biographies



Professor Zach Aman (UWA)

Zach is a Professor of Chemical Engineering, Chair of the Mathematical and Physical Sciences Board of Studies, and the Chair of UWA's Generative AI Think Tank. His research is focussed on gas hydrate kinetics and transportability, interfacial phenomena in multiphase systems, and environmental management of deepwater oil and gas releases. Zach received his PhD in Chemical Engineering from the Colorado School of Mines.



Associate Professor Gilles Gignac (UWA)

Gilles is an associate professor in the School of Psychological Science. He serves as an Associate Editor for the Journal of Personality and is on the editorial boards of several other journals. Gilles is known as an expert in individual differences and an early adopter of AI in academic work. He is a member of UWA's GenAI ThinkTank. Gilles's interest in AI extends to the nature of AI itself, exemplified by publications in Intelligence titled, "Defining Intelligence: Bridging the Gap between Human and Artificial Perspectives" and "Evidence of interrelated cognitive-like capabilities in large language models: Indications of artificial general intelligence or achievement?"



Dr Celeste Rodriguez Louro (UWA)

Dr Celeste Rodríguez Louro is Director of Language Lab, Linguistics Discipline Chair, and Australian Research Council fellow in Linguistics at The University of Western Australia (UWA). She is a member of UWA's Generative Artificial Intelligence Think Tank (GenAI Think Tank) and area consultant to the Oxford English Dictionary. Celeste works with the Heart Foundation to decolonise medical media for First Nations communities.

She has recently partnered with Google on a project focusing on inclusive AI technology. Celeste's award-winning research deals with standard language ideologies, language contact, and decolonisation. Her publications have appeared in top international outlets, and she has raised over four million dollars in funding in the last decade. Celeste presents Language Lab on RTR FM 92.1 radio – which won a 2023 Talkley Award by the Australian Linguistic Society.



Associate Professor Stacey Reinke (ECU)

Associate Professor Stacey Reinke is the Associate Dean (Teaching & Learning) for the School of Science. Stacey's research focus is analysing biochemical patterns in blood and urine to better understand the underlying mechanisms of inflammatory disease, mainly respiratory disease. Stacey joined ECU as a Senior Research Fellow in 2018, transitioned to a Senior Lecturer role in 2020, and has been the ADTL

of the School of Science since 2023. Her experience with generative AI relates primarily to upholding academic integrity and investigating academic misconduct in her role as ADTL.



Associate Professor Deborah Strickland (ECU)

Associate Professor Deb Strickland recently joined the Graduate Research Team at ECU in an academic role focusing on building capacity and capability in HDR. She also holds a research position as Head of the Pregnancy and Early life Immunology Research Group at The Kids Institute. Her research program is focused on respiratory immune homeostasis, infections, allergic asthma, and the impact of maternal

and neonatal inflammation on developmental trajectories of the infant immune system, contributing to the risk of chronic diseases. Her work aims to identify strategies that support improved immune system development and function, providing enhanced resistance to inflammatory diseases. She is a strong advocate for driving excellence in research culture and supporting HDR students and EMCR.

Alexis Vassiley

Alexis Vassiley is a Lecturer in the School of Business and Law at Edith Cowan University in Perth whose research spans the fields of industrial relations, labour history and work, health and safety. His current focus is on union renewal. Alexis is an Associate Editor of Labour History.

Amanda Madden

Amanda's research focuses on young people's perspectives and experiences in well-being within educational settings. She is dedicated to amplifying young voices and supporting them in sharing their lived experiences. Committed to improving the health and well-being of the next generation, Amanda's work has earned her awards for excellence in education research. Her wealth of experience and dedication to research excellence continue to make a positive impact in the field of well-being. Amanda's innovative approaches and significant contributions to educational research highlight her commitment to enhancing mental health and well-being.

Annemarie De Leo

Dr Annemarie (Annie) De Leo is an emerging leader in the field of implementation Science. She has been at the intersection of research and practice throughout her career, exploring practical ways to address the challenges clinicians face trying to implement latest research into routine practice. As a researcher, she remains steadfast in her commitment to empowering midwives to implement clinical innovations, recognising the pivotal role of effective research translation in achieving this goal. Her research endeavours are centred on crafting pragmatic ways to facilitate evidence-based practice at the nexus of research, practice, and policy.

Catherine Gough-Brady

Catherine Gough-Brady is an award-winning documentary producer and director who explores the relational nature of filmmaking in her research. (Please note that you can see me, briefly, in the rearview mirror of Bektı's motorcycle).

Janelle Caddy

Janelle is an Anglo / Idda Wadjerri woman and lecturer at Kurongkurl Katitjin. She has worked in child protection and health for 15 years before starting her PhD investigating the insights Aboriginal Elders have regarding community service provision for Aboriginal people with intergenerational trauma in the Gascoyne region of WA.

Jennifer Hamilton

Dr Jennifer Hamilton is nurse lecturer and early career researcher within the School of Nursing and Midwifery. Having completed her PhD in late 2024 on a new approach to group reflective practice to improve sustainable adoption of reducing restrictive practices and evidence based mental health care she continues to focus on mental health nurse workforce issues. She is an active member of the Australian College for Mental Health Nurses and aims to engage industry and consumers on research endeavours.

Joanna Nicholas

Joanna is a lecturer in dance and performance science. She is a member of several research groups including: (1) Surveillance of Injuries for Research in Circus (SIRC) working group, a group of international researchers leading circus injury research; (2) Dance Research Collaborative (DaRC), a group of Australian dance researchers interested in dancer wellbeing and dance for wellbeing; and (3) Simulation and Immersive Digital Technology Group at ECU. Joanna's research interests include investigating dancer and circus artist physical and psychological health and promoting wellbeing and career longevity through the development of tools and resources for artists, teachers, clinicians, and researchers.

Kesara Prabhashwary Hewage

My research background focuses on the intersection of corporate Environmental, Social, and Governance (ESG) performance and financial performance. I am particularly interested in financial and sustainability reporting. My work leverages big data analysis to uncover insights into the impact of ESG initiatives on corporate performance. My research aims to provide a comprehensive understanding of how companies can align sustainable practices with their economic goals. Ultimately, I strive to contribute to the development of more transparent and responsible corporate sustainability reporting standards.

Li-Ann Leow

Li-Ann Leow is currently a Lecturer of Psychology at Edith Cowan University. She is an emerging leader in the field of motor learning and motor control, which are subdisciplines of the fields of cognitive neuroscience. In her previous roles, she combined pharmacological manipulation of dopamine with non-invasive brain stimulation, to better understand how non-invasive brain stimulation alters human behaviour. Dr Leow's current research program aims to (1) investigate the fundamental cognitive and neural mechanisms of motor learning, which forms the basis for evidence-based movement rehabilitation interventions, in neurotypical and clinical populations such as stroke; and (2) leverage neuromodulatory techniques (including non-invasive brain stimulation and pharmacological manipulations) to induce neuroplasticity and improve function in neurotypical and clinical human populations.

Magdalena Wajrak

My main two research areas are; developing electrochemical methods for the detection of heavy metals in environmental, biological and industrial samples, and using converting carbon dioxide gas into useful molecules, such as ethylene.

Martina Costello

Martina is a dedicated practicing registered nurse and nurse academic who has recently completed her PhD, focusing on the social and emotional support of nurses. Her research interests are centered on quality and workforce issues within healthcare. Martina is passionate about the Scholarship of Teaching and Learning (SoTL) and is committed to enhancing educational practices in nursing. Her previous research includes significant work on teamwork among nurses, providing valuable insights into collaborative practices within healthcare settings.

Mohd Mat Roni

Dr. Saiyidi is an academic in accounting and finance, with a keen interest in data modelling, employing both conventional statistical methodologies and advanced machine learning techniques. His scholarly pursuits are rooted in the domain of sustainability, particularly in carbon sequestration. Saiyidi's expertise is reflected in his work with a wide array of data sets, including survey-based research, longitudinal financial records, and unstructured textual data. Outside of his academic endeavours, he dedicates time to exploring large language models and computer vision models. Presently, he is engaged in a collaborative international effort to refining a model that accurately estimates above-ground carbon stock.

Muhammad Rizwan Azhar

Muhammad Rizwan is a chemical Engineer with a diverse background in materials engineering and nanotechnology. He holds a PhD in Chemical Engineering. He has a keen interest in integrating academic research into product/process-oriented outcomes through collaborations with industry. He is keenly interested in developing effective battery recycling / transformation technologies, new battery chemistries, and technologies to achieve net zero waste and emissions. Muhammad is an award winning campaigner of safer battery technologies and has been sharing insights on advancements in battery storage technologies through scientific publications, conference presentations, seminars, Radio, TV and magazines.

Myles Murphy

Dr Myles Murphy is a clinical physiotherapist and early-career clinician researcher from the Nutrition and Health Innovation Research Institute at Edith Cowan University. Myles' has worked clinically as a physiotherapist for variety of elite sporting teams, including the Western Australian Cricket Association. While also working clinically, Myles' completed his PhD part-time at The University of Notre Dame Australia investigating the different mechanisms related to pain and dysfunction in people with lower-limb tendinopathy. Myles' research involves investigating the drivers of pain and impairment in people with lower-limb musculoskeletal injury and disability as well as novel neuroscience interventions to address these impairments.

Patricia Cain

Trish completed her PhD in Social Psychology at Murdoch University, Australia in 2019. She is experienced in both qualitative and quantitative methodologies, including the development of psychometric measures and the analysis of big Qualitative data sets. Her previous projects include the development and validation of the Fat Attitudes Assessment Toolkit (FAAT). She has a particular interest in the lived experience of people from minority and marginalised groups in Australia. Trish applies her expertise to projects related to stigma and discrimination and has a particular interest in how attitudes and discourse shapes lived experience.

Rina Wong

Dr Rina Wong (Fu) is a scientist, author and artist who shares science creatively through multimodal engagement. She completed her doctoral fieldwork in Papua New Guinea, examining malaria drug resistance. For her PhD, Rina received the prestigious Sprent Medal from the Australian Society for Parasitology (2014). Rina is a part-time academic at ECUSMHS and after a career break she re-entered research in 2022 as a sessional postdoc in the Applied Virology Research Group at Curtin Health Innovation Research Institute. Her research interests: malaria, adult stem cells, virucidal and bactericidal properties of Australian tea tree, novel crocodile collagen peptides and COVID-19.

Steinar Ellingsen

Dr Steinar Ellingsen is the coordinator of the Bachelor of Journalism and Broadcast Media at ECU. He is a mid-career researcher with experience from a successful ARC Linkage project (as 3rd CI). Valuing Web Series: Economic, Industrial, Cultural and Social Value (LP180100626) secured \$577,000 in funding in 2018 and will be concluded in 2024. Dr Ellingsen's career reflects a sustained commitment to advancing the fields of digital media and media innovations, fostering international collaborations, and engaging with professional communities through innovative research and service to industry and scholarship.

Violetta Wilk

Dr Violetta Wilk's research investigates social media consumer behaviour, online brand advocacy, online communities, big data analytics, data visualisation, user-generated content, interactive internet-based consumer behaviour, and the persuasiveness of online communication. Although she is a mixed methods researcher, Violetta often works with qualitative, social media data and uses data visualisation software such as Synthesio, Leximancer and QSR NVivo.

Vivian Chua

I am a VCRF at ECU and a cancer/molecular biology researcher. I obtained my PhD working on a breast cancer research project in 2016 and then trained as a uveal melanoma researcher at Thomas Jefferson University, Philadelphia (USA). My research focuses on uveal melanoma, the deadliest form of adult eye cancers that frequently spread to the liver. Liver tumours are difficult to treat and hence patient survival is often poor. My research aims to study vulnerabilities in subtypes of uveal melanoma that are at high risks of spreading and to uncover more effective treatment strategies to prolong patient survival.

Binoshia Fernando

Dr Fernando is currently working as a lecturer in the school of Medical sciences, Edith Cowan University in Alzheimer's group led by Prof. Martins. She plays a key role in the development of prevention and diagnostic methods for Alzheimer's disease. She has published more than 25 articles in high-impact journals and more than 20 other types of publications, including books, book chapters, abstracts, conference proceedings etc. She has made enormous contributions in the field of AD prevention, such as being the first to show the association between brain amyloid load and protein intake. This was on Channel 7 news and published in more than 60 online newspapers with live interviews. Her paper on the link between tea intake and AD was selected as the featured article of the Journal of Alzheimer's disease and was widely promoted in the media, as well as promoted in AAIC 2017 in London. Her paper on the potential link between coconut intake and AD helped initiate a clinical trial on coconut. She has also modified the existing GLC method for short-chain fatty acid analysis of cultures. Her effective written and verbal communication skills are demonstrated by publishing a book about Neurodegeneration and Alzheimer's disease. Currently, she holds a large number of professional positions as NHMRC investigator grant reviewer, MRFF National Grant reviewer, Guest editor, associate editor and member of the editorial board of few prestigious journals, HDR thesis examiner and HDR supervisor etc. She is the recipient of a fellowship from the Alzheimer's foundation, Perth (2012-2014), AAIC travel fellowship, finalist of ECU professional development award 2018. She has secured funding towards her research from state and national and international industry funding totaling more than 1M.

ECU EARLY AND MID-CAREER RESEARCHER NETWORK

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