

Faculty of Medicine

2022 HDR Symposium

6-7 October 2022

RBWH Education Centre, Herston



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE



5th Annual Faculty of Medicine Higher Degree by Research (HDR) Symposium (2022)

Programme at a Glance

Day 1 - 6 October 2022, 8.30am - 7.30pm

8.30-9.00am	Registration desk open
9.00-9.15am	Welcome and Acknowledgement of Country Professor Marina Reeves, Deputy Associate Dean Research, Researcher Development, Faculty of Medicine
9.15-10.30am	The secrets to staying productive, happy and balanced in your career Petrus Lapis, Director, Artisan of Change
10.30-11.00am	Session 1 - Lightning talks I
11.00-11.30am	Morning tea
11.30am-12.00pm	From Idea to Industry: Journey from a crowd funded project to publicly listed company Dr James Fielding, CEO, Audeara
12.00-1.15pm	Session 2 - Long talks I
1.15-2.00pm	Lunch
2.00-3.00pm	Academic writing in the time of Covid Professor Inger Mewburn, The Thesis Whisperer; Director of Researcher Development, Australian National University
3.00-3.30pm	Session 3 - Lightning talks II
3.30-3.45pm	Intermission
3.45-4.50pm	Session 4 - Long talks II
5.30-7.30pm	Networking @ Victoria Park Bistro, Barrambin

Day 2 - 7 October 2022, 08.30 - 16.30

8.30-9.00am	Registration desk open
9.00-9.10am	Welcome and Acknowledgement of Country Professor Marina Reeves, Deputy Associate Dean Research, Researcher Development, Faculty of Medicine
9.10-10.10am	Storytelling for researchers: how to pitch and engage with impact Tyson Jennings, Program Officer, UQ Ventures
10.10-11.15am	Session 5 - Long talks III
11.15-11.45am	Morning tea
11.45am-12.30pm	Panel Discussion: Managing your candidature Dr Akhila Ravichandran, QUT, Dr Mitch Sullivan, MRI-UQ, Dr Aakanksha Dixit, UQCCR, Dr Oliver Canfell, CHSR, Ms Belinda Bern, UQ Graduate School
12.30-1.00pm	Session 6 - Lightning talks III
1.00-1.45pm	Lunch
1.45-2.45pm	Open inquiry and the impact of PhD students in fostering a STEM culture Dr. Kaylene Cooper, Manager, Wonder of Science
2.45-4.00pm	Session 7 - Long talks IV
4.00-4.30pm	Awards and conclusion

Org Unit abbreviations

CHRC Child Health Research Centre
CHSR Centre for Health Services Research
GBCS Greater Brisbane Clinical School
MRI-UQ Mater Research Institute-UQ
QIMRB QIMR Berghofer Medical Research Institute

RCS Rural Clinical School
SBMS School of Biomedical Sciences
SPH School of Public Health
UQCCR UQ Centre for Clinical Research
UQDI UQ Diamantina Institute

Keynote Speakers



Petris Lapis

Petris Lapis has worked in accounting, law, academia, banking, business, and training. She has consulted to government and industry, and published books and articles. She has studied commerce, law, coaching, NLP and hypnosis, and is making change differently, passionately and quietly through workshops and resources. Petris is powered by a love for people and their possibilities. Her vision is a world where you can bring your best self to what you do.



Dr James Fielding

Dr James Fielding is the Founder and CEO of Audeara, Founder and Director of Robotics Engineering Research Laboratories, Founder and Director of Yumm! Confectionary and Founder and former Director of Field Orthopaedics. He worked in a range of fields before pursuing medicine. Dr Fielding was based at the Royal Brisbane and Women's Hospital before leaving full time clinical medicine to focus on medical technology research and founding and developing his start-up, Audeara. Audeara headphones are the world's first full-fidelity headphones with a built-in hearing test. The company has grown from a small, crowdfunded project in 2017 to a publicly listed company valued at \$21M in 2021.



Professor Inger Mewburn

Professor Inger Mewburn (better known as @thesiswhisperer) was born on Nuenonne country, which is now known as Tasmania, Australia (always was, always will be, Aboriginal land). She has a background as a designer and a researcher, which was nurtured at the University of Melbourne and RMIT University. Since 2006, she has worked exclusively with PhD students and early career academics, helping them finish complex research projects with (very) demanding stakeholders. She's passionate about people reaching their potential as researchers and helping create a kinder, more inclusive academy. Inger is currently the Director of Researcher Development at The Australian National University where she oversees professional development workshops and programs for all ANU researchers.



Tyson Jennings

Tyson Jennings is a UQ Ventures Program Officer and leads the UQ Ventures Validate program. Prior to joining UQ Ventures, Tyson co-founded Yodel - a community-based business listing app designed to connect locals with local businesses. Since establishing Yodel in 2017, his startup has grown significantly, raising capital, completing a major pivot, competing in pitch events across Australia, launching internationally, and becoming one of Brisbane's most loved members of the startup ecosystem. Tyson has a background in corporate sales and partnerships, specialising in identifying and setting up partnerships in new and existing markets.



Dr Kaylene Butler

Dr Kaylene Butler is the Manager of Wonder of Science (UQ Graduate School), STEM educator who joined as a Program Officer for Wonder of Science in 2018. She is also a vertebrate palaeontologist. Kaylene's PhD research focused on extinct kangaroos from the Riversleigh World Heritage Area in northwestern Queensland, Australia. While volunteering as a Young Science Ambassador during her PhD she developed a passion for STEM education which sparked her career as a STEM educator and science communicator. Kaylene has worked as a science communicator with schools, social media, news, and TV programs such as Totally Wild.

Panelists for managing your candidature



Dr Akhila Ravichandran

Dr Akhilandeswari (Akhila) Ravichandran is an Associate Lecturer in Biomedical Engineering in the School of Mechanical, Medical, and Process Engineering at the Queensland University of Technology (QUT). Akhila graduated her Bachelors in Bioengineering from SASTRA University, India, followed by a PhD in Biomedical Engineering from Nanyang Technological University, Singapore. Her doctoral research focused on the development and evaluation of mechanical bioreactors for generation of bone tissues from 3D printed, polymer-composite scaffolds and stem cells. The research was done in collaboration with Quintech Life Sciences, a biomedical company and led to the filing of an international PCT patent application (2021). Akhila is passionate about engaging with students and has been actively involved in mentoring high school students from Queensland Academies for their research projects.



Dr Aakanksha Dixit

Dr. Aakanksha Dixit is a freshly minted Early Career Researcher. She completed her PhD with A/Prof Judith Greer's group at UQ Centre for Clinical Research where she continues her research. Her research focuses on Multiple Sclerosis. She uses pre-clinical models of Multiple Sclerosis to enhance the translation of new therapeutic approaches for Multiple Sclerosis to the clinic. She is both a busy mum of two beautiful girls at home, a mental health champion at workplace, and a joyful cheerleader for students at UQCCR.



Dr Oliver Canfell

Dr Oliver Canfell is a Research Fellow in Digital Health at The University of Queensland and Accredited Practising Dietitian. Oliver has experience as a clinician-researcher in Queensland's healthcare system, specifically as a paediatric dietitian in preventing and managing childhood obesity. Oliver is part of the newly established Queensland Digital Health Centre (QDHeC), holds an Honorary Appointment with Health and Wellbeing Queensland, and is Chair of the UQ Digital Health PhD Cohort. Oliver is passionate about precision approaches to preventing society's wicked health problems, particularly obesity and other noncommunicable diseases.



Dr Mitch Sullivan

Dr Mitchell Sullivan is a Mater Research Career Track Fellow and an Advance Queensland Industry Research Fellow, working in the Glycation and Diabetes research group lead by Professor Josephine Forbes. Mitchell believes that by investigating the processes involved in how our bodies store the sugar in our tissues, it will be possible to unravel the origin and potential treatments of metabolic diseases such as Diabetes. Mitchell is also passionate about mentoring and training. He is a representative on the Mater Student Research Committee and the Translational Research Institute Mentoring Development Committee. He aims to help inspire the next generation of scientists and is currently working with the Office of the Chief Scientist of Queensland in the "Scientist in the School" program.



Belinda Bern

Belinda Bern has been the Director of UQ Graduate School since 2015. Belinda's background is in education and research management. In her role as Director of the Graduate School she oversees the administration of Higher Degree by Research (HDR) Programs at UQ and leads the team delivering advice and development for all HDR candidates at UQ. Belinda is a UQ Mental Health Champion and has helped to lead the HDR Wellbeing, Engagement and Research Culture (WERC) project team over the last three years, with the aim to improve the wellbeing and research experience for all HDRs across UQ.

5th Annual Faculty of Medicine Higher Degree by Research (HDR) Symposium (2022)

Detailed programme

Day 1 - 6 October 2022 08.30 – 19.30

8.30-9.00am	Registration
9.00-9.15am	Welcome, Acknowledgement of Country Marina Reeves, Deputy Associate Dean (Researcher Development), Faculty of Medicine
9.15-10.30am	The secrets to staying productive, happy and balanced in your career Petrus Lapis, Director, Artisan of change Explore the secrets to turning a good career into a great career. Share practical tips and tools to be more productive every day, feel better and have a healthy work life balance in this interactive engaging workshop. Leave with a toolkit of strategies you can use when you return to work and a few 'aha' moments to help you make change going forward.
10.30-11.00am	Session 1 – Lightning talks I The implementation and impacts of the standards for comprehensive care: A systematic search and review of Australian and international evidence – Beibei Xiong, CHSR Regulation of Human Natural Killer Cell subsets through Receptor-ligand interactions in Childhood Leukemia – Cui Tu, MRI-UQ A multiplex PCR pipeline for antimicrobial resistance typing in Neisseria gonorrhoeae in Queensland – Olivia Jessop, UQCCR Understanding CD4+ T cell mediated immune regulation in malaria – Luzia Bukali, QIMRB Pharmacokinetics of polymyxin b and the pharmacokinetic/pharmacodynamic target attainment in hospitalised adult patients with multidrug-resistant gram-negative infections – Puteri Juanita Zamri, UQCCR Models of communication for polygenic scores and associated psychosocial and behavioral impacts on recipients: a systematic review – Courtney Wallingford, UQDI Associations between emotional and behaviour problems in early adolescence and attachment styles in early adulthood – Julie Blake, QIMRB
11.00-11.30am	Morning tea
11.30am-12.00pm	From Idea to Industry: Journey from a crowd funded project to publicly listed company Dr James Fielding, CEO, Audeara A career where industry meets biomedical research. After graduating from UQ, Dr James Fielding turned his attention to start-ups and founded the company Audeara, researching and designing headphones that can test and re-test the hearing of the wearer over the span of a lifetime. In this keynote, Dr James Fielding will be exploring the power of taking and making opportunities. From business, finance, surgery, music, ASX listing and all in between, take a look at the life of medicine outside pure clinical practice.
12.00-1.15pm	Session 2 – Long talks I Exploring oestrogen-related mechanisms in ovarian carcinogenesis: Association between bone mineral density and ovarian cancer risk, a multivariable Mendelian randomisation study – Karen Tuesley, SPH The association between diabetes mellitus of different durations and risk of pancreatic cancer: an Australian national data-linkage study in women – Sitwat Ali, SPH Deciphering the role of regulatory cells in the prevention of Cutaneous Squamous Cell Carcinoma – Shoaib Anwaar, UQDI Targeting p53 and Rb mutant cancers with Aurora kinase B inhibition – Shivam Vora, MRI-UQ Developing Effective Therapeutic Strategies for the Treatment of Recurrent Glioblastoma – Kyla Bradbrook, QIMRB Using NODDI to characterise longitudinal changes in free water in children with chronic mild traumatic brain injury – Athena Stein, CHRC Exploiting structural knowledge overcomes complexity constraints in human reasoning – Conor Robinson, QIMRB
1.15-2.00pm	Lunch

2.00-3.00pm	<p>Academic writing in the time of Covid Professor Inger Mewburn, <i>Thesis Whisperer; Director of Researcher Development, The Australian National University</i></p> <p>Academics often struggle with the question of relevance. With the world in such turmoil, it can be hard to focus on the research and writing tasks at hand. In this 1-hour lecture, Inger will talk about the common blocks to successful writing and some strategies to overcome them. At the end of the session, she will ask bigger questions about the place of academic writing in the future. All writing is a political act, even if the politics are beneath the surface and hard to see. If academia wants to stay relevant and continue to have the social license to seek support from our community, some academic practices must change.</p>
3.00-3.30pm	<p>Session 3 - Lightning talks II</p> <p>Variability of Nitrogen Dioxide from Space over India during Last Two Decades (2005-2019) – Neha Singh, <i>SPH</i></p> <p>Specialised Respiratory Epithelial Cells, M Cells and Tuft Cells, Optimise Lung Protection – Renae Denman, <i>UQDI</i></p> <p>Temporal trends in the incidence of Enterobacteriales bloodstream infections and associated antimicrobial resistance in children and neonates in Queensland – Anna Gibbs, <i>UQCCR</i></p> <p>An in vitro stability study of ceftolozane-tazobactam in an elastomeric infusor device for ambulatory care – Saiyuri Naicker, <i>UQCCR</i></p> <p>Hypoxia and interleukin (IL)-1β sensitise proximal tubule epithelial cells (PTEC) to fibrosis and senescence – Kurt Giuliani, <i>GBCS</i></p> <p>Digital food records in clinical practice: Acceptability, accuracy and impact on dietary assessments – Amandine Barnett, <i>CHRC</i></p> <p>Improving food security among CANZUS Indigenous Peoples through use of participatory processes – Emma Chappell, <i>SPH</i></p> <p>How do dimensions of primary care access vary in importance across rurality in regional, rural, and remote Australian communities? – Maddie Higgins, <i>RCS</i></p>
3.30-3.45pm	Intermission
3.45-4.50pm	<p>Session 4 - Long talks II</p> <p>Chinese school adolescents' stress experience and coping strategies: a focus group interview study – Xiaoyun Zhou, <i>CHSR</i></p> <p>Prospective study of asthma and anxiety in Australian children – Diana Garcia, <i>SPH</i></p> <p>Influence of muscle stiffness and architecture on gastrocnemii shape during isometric plantarflexion contractions – Nicole Kelp, <i>SBMS</i></p> <p>Influence of passive ankle exoskeletons on lower limb joint- and muscle-level responses to unexpected vertical perturbations – James Williamson, <i>SMBS</i></p> <p>Behavioural economic insights into budget allocation in home care packages: an ethnographic approach – Danelle Kenny, <i>CHSR</i></p> <p>Mistreatment and Punitive Social Control of Aboriginal and Torres Strait Islander Children – Lorelle Holland, <i>SPH</i></p>
5.30pm till late	Networking @ Victoria Park Bistro, Barrambin
Day 2 - 7 October 2022, 08.30 – 16.30	
8.30-9.00am	Registration
9.00-9.10am	<p>Welcome & Acknowledgement of Country Professor Marina Reeves, <i>Deputy Associate Dean Researcher Development, Faculty of Medicine</i></p>
9.10-10.10am	<p>Storytelling for researchers: how to pitch and engage with impact Tyson Jennings, <i>Program Officer, UQ Ventures</i></p> <p>Whether we are pitching a business idea, presenting a project to our colleagues, or talking to customers, we need to be able to interest, convince and influence with our words. In this workshop, Tyson will help you understand the fundamentals of narrative patterns and tools, learn how to communicate your message in a simple and concise way, learn how to build a compelling story and how to persuade an audience, and practice and master the art of storytelling.</p>

10.15-11.15am	<p>Session 5 - Long talks III</p> <p>Referral patterns, disease progression and impact of the Kidney Failure Risk Equation (KFRE) in a Queensland chronic kidney disease Registry (CKD.QLD) cohort: a study protocol – Clyson Mutatiri, <i>RCS</i></p> <p>How Effective are Pictures in Eliciting Information from People Living with Dementia? A Systematic Review – Muhammad Haroon, <i>CHSR</i></p> <p>Lower Hypothalamic Volume with Lower BMI is Associated with Shorter Survival in Patients with ALS – Jeryn Chang, <i>SBMS</i></p> <p>Functional magnetic resonance imaging of the hippocampus as biomarker for cognitive decline in Parkinson's disease – Dana Pourzinal, <i>UQCCR</i></p> <p>The effect of digitisation on the safe management of anticoagulants – Jodie Austin, <i>CHSR</i></p> <p>Pathogen-associated molecular patterns produced by infectious microbes worsen neurogenic heterotopic ossifications after spinal-cord injury – Selwin Samuel, <i>MRI-UQ</i></p>
11.15-11.45am	Morning tea
11.45am-12.30pm	<p>Panel Discussion: Managing your candidature Dr Akhila Ravichandran, QUT, Dr Mitch Sullivan, MRI-UQ, Dr Aakanksha Dixit, UQCCR, Dr Oliver Canfell, CHSR, Ms Belinda Bern, UQ Graduate School</p> <p>Managing your PhD candidature can be challenging at the best of times. So, our panel members are here to answer your curly questions on how to make your HDR experience a smooth one. They will address questions from the audience and delve into topics including time & project management, HDR progress reviews, relationships with your advisory team, and how to balance academia while raising a family. Panel members will reflect on their experiences as HDR candidates and as professionals wearing multiple hats. Post questions for the panel here: tinyurl.com/mr2mp4hp</p>
12.30-1.00pm	<p>Session 6 - Lightning talks III</p> <p>Understanding the roles of ephrin A5 in Glioblastoma and its potential as a therapeutic target – Niclas Skame, <i>QIMRB</i></p> <p>Mapping Tumour Biology and Targeting EphB3 for the Treatment of Diffuse Intrinsic Pontine Glioma – Anja Kordowski, <i>QIMRB</i></p> <p>Unusual suspects in hereditary melanoma: POT1, POLE, BAP1 – Ellie Maas, <i>UQDI</i></p> <p>Structural elucidation of bioengineered anti-CDCP1 immune-complexes that deliver payloads for the diagnosis and treatment of epithelial cancers – Kayden Kwah, <i>MRI-UQ</i></p> <p>The characterisation of tumour microenvironment in head and neck squamous cell carcinoma (HNSCC) in immunotherapy cohort patients – Habib Sadeghirad, <i>UQDI</i></p> <p>Neoantigen specific T-cells subsets in patients with chronic lymphocytic leukemia – Muhammed Sabdia, <i>MRI-UQ</i></p> <p>Characterising the role of NKG7 in CD8+ T cells during blood-stage malaria – Teija Frame, <i>QIMRB</i></p>
1.00-1.45pm	Lunch
1.45-2.45pm	<p>Open inquiry and the impact of PhD students in fostering a STEM culture Dr. Kaylene Cooper, Manager, Wonder of Science</p> <p>In this presentation we explore what it means to foster a STEM culture in Queensland Schools and discuss effective methods for engaging primary and secondary students, teachers and local community members in science. Wonder of Science (located in the UQ Graduate School) work with PhD students to inspire the next generation of STEM students. iOur inspiring Young Science Ambassadors bring STEM to life and support Years 4 – 9 students in developing a response to a STEM Inquiry Challenge Task. Students develop an understanding of the importance of STEM and believe that STEM education and careers are accessible to them. In this presentation we will also discuss pathways for becoming involved with the Wonder of Science program in 2023.</p>

2.45-4.00pm	Session 7 – Long talks IV Investigating factors associated with awareness and use of PrEP and PEP among Queensland tertiary students – Sarah Warzywoda, <i>SPH</i> Increased <i>Neisseria gonorrhoeae</i> infection rates with decreased genotypic diversity, following COVID-19 restrictions in Queensland, Australia 2020 – Bushra Alharbi, <i>UQCCR</i> Does history matter for evidence synthesis? A scoping review on migrant workers and COVID-19 in Australia, Canada, and New Zealand – Satrio Nindyo Istiko, <i>SPH</i> The immune checkpoint TIGIT limits anti-bacterial immunity and is a potential target for immunotherapy in infectious disease – Timothy McCulloch, <i>UQDI</i> Donor bone marrow-derived macrophage MHC II drives neuroinflammation and altered behavior during chronic GVHD in mice – Samreen Shaikh, <i>SBMS</i> Associations between physical activity volume and sedentary behaviour on placental morphology throughout pregnancy – Jade Kubler, <i>MRI-UQ</i> A mixed-methods, community-focused evaluation of a web-based mental health program for the Queer community: Study protocol – James Fowler, <i>SPH</i>
4.00-4.30pm	Awards and conclusion

2022 HDR Student Committee – Symposium Organisers

Haresh Sajiir (MRI-UQ; Chair)

Yunan Ye (UQCCR; Deputy Chair)

Victoria Adegoke (SBMS)

Amanda Bordin (UQCCR)

Kelly D’cunha (SPH)

Keshia De Guzman (CHSR)

Phoebe Duncombe (SBMS)

Ghaz Hashemi Mazlaghanian (UQDI)

Vaibhavi Joshi (UQCCR)

Kayden Kwah (MRI-UQ)

Amir Kamel Rahimi (CHSR)

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Hannah Triscott (Medical School)

Yukiko Ezure (UQCCR)

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