TRI TRANSLATIONAL RESEARCH SYMPOSIUM 2019

DISCOVER DEVELOP DELIVER

SYMPOSIUM PROGRAM

Monday - Tuesday

5-6th August 2019

Translational Research Institute

SCIENCE COMMUNICATION

TALK SCIENCE TO ME

@2019TRS

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THE 2019 TRANSLATIONAL RESEARCH SYMPOSIUM SCHEDULE

Monday, 5th August

Session	Time	Location
Registration	11:00am	Outside Auditorium
Welcome Address	12:00pm	Auditorium
Special Guest Keynote Speaker: Nasim Amiralian	12:15pm	Auditorium
Lunch	1:00pm	Atrium
Oral Session 1	1:45pm	Auditorium
Afternoon Tea	3:00pm	Atrium
Special Guest Discussion Panel Science Communication: Talk Science to me	3:30pm	Auditorium
Networking Drinks	5:00pm	Atrium

Tuesday, 6th August

Session	Time	Location
Registration	8:00am	Outside Auditorium
Welcome Address	8:45am	Auditorium
Two Minute Tease Session 1	9:00am	Auditorium
Poster Session 1 Morning tea in the Atrium	9:30am	Atrium, 2003/2004, 2007
Oral Session 2	10:45am	Auditorium
Two Minute Tease Session 2	12:00pm	Auditorium
Poster Session 2 Lunch in the Atrium	12:30pm	Atrium, 2003/2004, 2007
Talk Science to Me: Science Communication Prize Session	1:45pm	Auditorium
Poster Session 3 Afternoon tea in the Atrium	2:45pm	Atrium, 2003/2004, 2007
Special Guest Keynote Speaker: Ken Dutton-Regester	4:00pm	Auditorium
Awards Ceremony and Close	4:45pm	Auditorium

TRS 2019 SCIENCE COMMUNICATION
TALK SCIENCE TO ME

The 2019 theme is Science Communication. Join us, as our special guest keynote speaker **Nasim Amiralian** (Monday, 5th August; 12:15pm - 1:00pm), the special guest discussion panel with **Madeleine Kersting Flynn**, **Jesse Thomas**, **Alison Rice** and **Carl Smith** (Monday, 5th August; 3:30pm - 5:00pm), and with special guest keynote speaker **Ken Dutton-Regester** (Tuesday, 6th August; 4:00pm - 4:45pm) share their experiences in a range of science careers.

There are 12 oral presentations, almost 170 poster presentations over 3 poster sessions, newly introduced opportunities for oral presentations in the 'Two Minute Tease' talks, the Translational Research Prize is up for grabs, and we get the competition going in this year's special session - Talk Science to Me with special guest judges, budding scientists to be, from three schools accross Brisbane.

We welcome all special guests, attendees, presenters, judges, sponsors and volunteers from around Brisbane to the Translational Research Institute, and thank you for being part of TRS 2019.

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2019 SPONSORS

The Translational Research Symposium is funded by the TRI partner institutes University of Queensland, Queensland University of Technology, and Mater Research Institute. We thank the partner institutes for their ongoing support again this year.

In addition to the TRI partner institutes the TRS is supported by the following sponsors. We thank the following sponsors for their support again this year, and hope this event is a success in networking with researchers from across Brisbane.

If you have registered for TRS, the back of your tag will have the **trade display passport** - make sure you visit these sponsors for stamps to give yourself a chance to win one of **13 lucky door prizes** thanks to our Platinum Sponsor, and Gold Sponsors.

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LUCKY DOOR PRIZES

The lucky door prizes will be drawn **4:45pm Tuesday, 6th of August, during the Awards Ceremony**. Be sure to visit the TRS Sponsors, and have the trade display passport initialled to go in the draw! *You MUST be at the Awards Ceremony to collect the lucky door prize, else it will be redrawn.* Boxes will be available at the reception desk as you walk into the Auditorium for the final special guest keynote speaker at 2:45pm. **Please drop the lanyard in the LANYARD BOX and your name tag/trade display passport in the TRADE DISPLAY PASSPORT BOX**.

The lucky door prizes are from a local business, Presents of Mind. We thank Presents of Mind for giving TRS a friendly price for the lucky door prizes. Visit one of their stores today!

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TRS ORGANISING COMMITTEE

The Translational Research Symposium is organised by students and researchers at the Translational Research Institute. The committee was lead by the Chair Samantha Cosh, and Vice Chair Amelia Fotheringham, of Mater Research Institute. The committee is responsible for mid-scale event planning and obtaining sponsorship, organising catering and logistics, marketing and communications and people management over a six month planning process.

The committee would like to thank all sponsors and institutes for helping to fund this event. We would also like to extend the welcome to attendees and participants from external institutes to TRI.

If you are interested in being part of the committee for 2020, please contact the current committee at trs2019.info@gmail.com.

Committee Chair

Samantha Cosh
PhD Student
Mater-UQ

Amelia Fotheringham
PhD Student
Mater-UQ

Adil Malik
PhD Student
QUT

Megha Budhwani
Post-Doc
UQDI

Shubhra Chandra
PhD Student
QUT

Johan Medina
Post-Doc
UQDI

Edwidge Roy
Post-Doc
UQDI

Michelle Cestari
PhD Student
Mater-UQ

Melanie Caruso
RA
Mater-UQ

James Dight
PhD Student
UQDI

Jack Galbraith
PA
UQDI

Qingyan Cui
Post-Doc
UQDI

Yu Hin Tang (Thomas)
PhD Student
QUT

Anna Efstathiadou
UQ-FOM

Zhixiu Li
Post-Doc
QUT

Ho Yi Wong (Bonnie)
PhD Student
UQDI

Joy Cheung
Honours Student
Mater-UQ

SCIENCE COMMUNICATION

TALK SCIENCE TO ME

This year the Translational Research Symposium organising committee chose SCIENCE COMMUNICATION as the theme of the 2019 Translational Research Symposium. Effective communication is paramount to a successful career in science, whether it is getting your publications into high impact journals or securing investors, speaking with industry partners, convincing a prospective employer that you are the best candidate, spreading the word about your work with the general public, or teaching the budding young scientists of the future. The audience you are communicating with dictates how you communicate your work.

In the world of "Fake News" how do we communicate effectively to make sure as researchers and clinicians our message gets accurately and effectively communicated to other scientists, the media and the lay public? How do we navigate the myriad of media platforms so that our message cuts through, without compromising our research integrity? Increasingly, research demands that we negotiate, liaise, and ultimately communicate effectively with multiple stakeholders from industry, to academia, political and lay public. Furthermore, there are a myriad of metrics and new measures of research impact that gauge how well our work is being garnering interest in the "real world". With these and many other challenges facing scientists we have curated a program designed to promote discussion and insight into science communication for the modern age with TRS2019.

In line with this we have chosen an exciting array of panellists and keynote speakers from broad ranging backgrounds to bring attendees insights, tips, and to explore the intersection between research, the media, industry and how we as researchers can communicate to have impact. The key sessions where we explore science communication are: with special guest keynote speaker **Nasim Amiralian** (Monday, 5th August; 12:15pm - 1:00pm); the special guest discussion panel with **Madeleine Kersting Flynn**, **Jesse Thomas**, **Alison Rice** and **Carl Smith** (Monday, 5th August; 3:30pm - 5:00pm); and with special guest keynote speaker **Ken Dutton-Regester** (Tuesday, 6th August; 4:00pm - 4:45pm). Please join us, and take advantage of the range of experiences of our special guests.

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SPECIAL GUEST DISCUSSION PANELLISTS

Alison Rice
Deputy Leader,
Synthetic Biology Future Science Platform,
CSIRO

Dr Alison Rice has a Bachelor of Science with Honours from the University of Adelaide and a PhD in biological sciences from the University of Bordeaux II in France. She has worked as a senior research scientist leading research groups focused on new therapeutic options for the complications of haematopoietic stem cell transplantation in Medical Research Institutes in Sydney and Brisbane respectively.

In 2012, she made the successful transition to a career in research development, incorporating research policy, research management and business development at Griffith University. In 2018 she took up a role as a Principal Policy Officer in the Health Innovation, Investment and Research Office (HIIRO; Queensland Health). She has drawn on her experience as a research scientist and research development expert to bring content specific knowledge about research, researchers and the research sector to the government sector.

Her experience in medical research, the higher education sector and government has provided me with experience in strategy development and execution, leading and managing complex projects and teams, knowledge creation, data analysis and the opportunity to engage with and develop meaningful relationships with stakeholders; all of which are essential for her current role as Deputy Director, Synthetic Biology Future Science Platform at CSIRO.

Jesse Thomas
Program Manager
Patheon

Dr Jesse Thomas completed his PhD in Molecular Biology & Immunology through the University of Melbourne and CSIRO in Therapeutic Innovation for Animal Health. Understanding early on that academia was not for him, he transitioned to private industry where, following a brief stint in Protein Purification R&D with CSL, he moved to a Drug Screening position at Biota Holdings in pre-clinical Hep C drug development. Managing lab scale drug screening, data generation / analysis and reporting results that directed the business to management, this role reinforced the criticality of soft skills and human interaction. Skills that have been a pillar for success in his career since.

A strategic career change took him from lab work to full-scale commercial production of opiate derived Narcotic Raw Material within GSK and understanding how science runs as a business. An understanding of yield, throughput, and cost are at the heart of a Technical Experts role in a production environment. Designing, implementing and imbedding novel value adding processes with multi-faceted teams was an enjoyable and fulfilling challenge as Process Owner.

Now, as a Program Manager at Patheon, part of ThermoFisher Scientific in Brisbane, he contracts manufacture clinical trial biologics as per cGMP for small – medium sized biotech companies around the globe. With customer facing responsibilities, managing project finance, timelines and teams he finds himself even further from my distant technical base. At the core of my being he firmly believes in work / life balance, sharing wisdom, being bold, enjoying the journey and treating others well.

Carl Smith
Walkley Award-winning science journalist
ABC Science Journalist

Carl is a Walkley Award-winning science journalist and kids' presenter at the ABC, working for RN and ABC Science. He makes radio documentaries for RN's science programs, The Science Show, The Health Report, All in the Mind, and Science Friction. He also co-presents the kids' podcasts Short & Curly and Pickle.

Before joining the ABC, Carl worked briefly as a scientist and ran the University of Queensland's student radio station. In 2014 he moved to Canberra to train as an ABC News cadet, and in 2015 he joined the ABCME program Behind the News as a reporter.

He presented the ABCTV series Minibeast Heroes, and has collaborated with the BBC and WNYC on stories. Carl has won multiple awards for his work, including a Young Walkley Award in 2017, 'Young Journalist of the Year 2015' from the SA Press Club, 'Best New Australian Journalist 2014' from the Lizzies Tech Journalism Awards, and two Queensland Clarion Awards.

Madeleine Kersting Flynn
Biomedical illustrator,
Queensland Institute of Medical Research (QIMR)

Madeleine Kersting Flynn has been a biomedical illustrator for over 23 years, and has been at her current position at QIMR Berghofer for the past 12 years. She specialises in both scientific and medical illustration, creating for researchers and clinicians. Traditionally trained, she has also adopted 3D modelling and animation techniques as new technology advances in the field, and is now expanding into more experimental ways of communicating science and medicine for a mainstream audience.

She is a devoted advocate of science communication and education, and is the President of the Queensland Chapter of the Australian Institute of Medical and Biological Illustrators. She has organised workshops on biomedical illustration at the Queensland Museum, World Science Festival and the UQ School of Medicine.

Currently she is writing scripts for a children's show "Worms and Germs", which she hopes to launch in 2020. Future plans also include creating large-scale immersive environments and sculpture to achieve her goal of bringing science and medicine to the masses in an engaging and entertaining way.

Fiona Simpson (Master of Ceremonies)
Senior Fellow of the Queensland Head and Neck Cancer Centre
Group Leader, UQDI
Affiliate Senior Lecturer, SCMB, UQ

Fiona completed her PhD on cellular trafficking with Prof. Margaret Robinson at the University of Cambridge, UK. She was then a Wellcome Trust Prize Post-doctoral fellow at The Scripps Research Institute, La Jolla, CA in the laboratory of Prof. Sandra Schmid working on trafficking and endocytosis of RTKs. Fiona then joined UQ as a Juvenile Diabetes International Fellow in the laboratory of Prof. David James working on insulin receptors and trafficking. Fiona is currently a Fellow of the Queensland Head and Neck Cancer Centre and heads a laboratory focused on the response prediction and improvement of tumour therapeutics.

The Simpson lab research program is focused directly on the translation of research findings into new cancer therapies and has generated a novel method for antibody-mediated cancer therapy and associated companion diagnostic methods which are covered by two international patent applications (2012 priority) and a third provisional patent application filed in 2015. Fiona was the Lead scientific investigator on a Phase I proof of concept study of the novel therapy in head and neck cancer (HREC/15/QPAH/48), now successfully completed and the Lead scientific Investigator on forthcoming Phase II clinical trials in advanced cancer.

SPECIAL GUEST KEYNOTE SPEAKERS

Ken Dutton Regester
Research Officer,
Queensland Institute of Medical Research (QIMR)
QLD Tall Poppy Scientist

Affectionately known as 'The Funky Dr', Dr Ken Dutton-Regester is a Research Officer at the QIMR Berghofer Medical Research Institute exploring functional genomics in melanoma. After completing his PhD at the Queensland University of Technology in 2012, Ken was awarded a NHMRC Early Career Fellowship to learn genome-wide functional approaches at the Broad Institute of Harvard MIT and Dana Farber Cancer Institute. Ken returned to QIMR Berghofer in 2016 and is continuing his research into drug resistance mechanisms and novel drug targets in melanoma. He is an AMP Tomorrow Fund fellow, a Young Investigator on a Melanoma Research Alliance Team Science Award, and a past-chairperson of the Associate Member Council for the American Association for Cancer Research.

Besides his research, Ken is extremely passionate about science communication. A national finalist in Famelab and a 'Queensland Young Tall Poppy Scientist' Awardee in 2017, Ken has spoken at a variety events including Pint of Science, Science Nation, Melanoma March, and the 'Wonder of Science' Flying Scientist program. Ken has explored unique ways to communicate his research including 'full body poses' to talk about different melanoma subtypes, UV cameras to demonstrate how sunscreen works and in 2018 entered the Science 'Dance your PhD' competition. On his latest venture, Ken is embarking on a new science education and outreach project to create the world's first cancer-themed Puzzle Room (escape room) that will launch in National Science Week 2019.

Nasim Amiralian
UQ Amplify Research Fellow,
Australian Institute of Bioengineering and Nanotechnology,
University of Queensland

Dr Nasim Amiralian specialises in processing and structure-property performance of novel materials, renewable-based polymers and nanocomposites.

During her PhD, she discovered and patented a unique high-quality nanocellulose from spinifex, an Australian native arid grass, using simpler and more environmentally friendly methods. The outcome of her PhD project has resulted establishment of Australia's first nanocellulose pilot production plant. Building on her innovations in spinifex nanocellulose, she is utilising the unique properties of nanocellulose to produce novel conductive hydrogel systems which could lead to improved conductive hydrogel technology.

In recognition of her contribution to the field of nanomaterials engineering and research excellence she has received a number of awards including; one of Australia's Top 5 Scientists (ABC/UNSW, 2018), Queensland Women in STEM Prize- judges choice award (2017) and Women in Technology Life Sciences and/or Infotech Rising Star Award (2016).

ORAL PRESENTATIONS

Oral Presentation Session One
Monday, 5th August
1:45pm - 3:00pm
TRI Auditorium

Oral Presentation Session Two
Tuesday, 6th August
10:45am - 12:00pm
TRI Auditorium

Awards Ceremony
Tuesday 6th August
4:45pm
TRI Auditorium
Winner and Runner Up Prizes

Format
6 Speakers Per Session
8 Minute Presentations
2 Minutes Question Time

In 2019, over 200 abstracts were received. These abstracts were received from the Translational Research Institute, as well as Queensland Institute of Medical Research Berghofer (QIMRB); Queensland University of Technology Institute of Health and Biomedical Innovation at Kelvin Grove (QUT); University of Queensland institutes Australian Institute of Bioengineering and Nanotechnology (AIBN), Institute of Molecular Biosciences (IMB), Queensland Brain Institute (QBI), and others at St Lucia; and Griffith University Institute for Drug Discovery and Institute for Glycomics, and many others.

Abstracts were judged by title, abstract (250 words) and translational relevance statements (60 words). Of the 200 abstracts received, the highest scoring 12 abstracts were offered an oral presentation.

Congratulations to the selected Oral Presenters for 2019!

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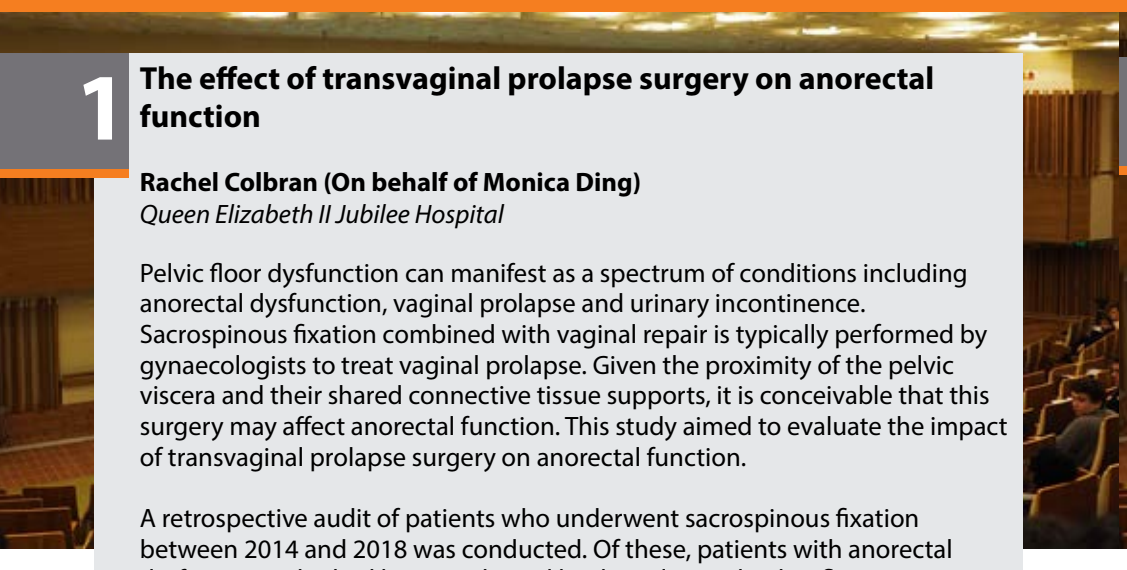


1 The effect of transvaginal prolapse surgery on anorectal function

Rachel Colbran (On behalf of Monica Ding)
Queen Elizabeth II Jubilee Hospital

Pelvic floor dysfunction can manifest as a spectrum of conditions including anorectal dysfunction, vaginal prolapse and urinary incontinence. Sacrospinous fixation combined with vaginal repair is typically performed by gynaecologists to treat vaginal prolapse. Given the proximity of the pelvic viscera and their shared connective tissue supports, it is conceivable that this surgery may affect anorectal function. This study aimed to evaluate the impact of transvaginal prolapse surgery on anorectal function.

A retrospective audit of patients who underwent sacrospinous fixation between 2014 and 2018 was conducted. Of these, patients with anorectal dysfunction who had been evaluated by the colorectal pelvic floor service preoperatively and postoperatively were included for analysis. These patients were assessed with symptom-specific validated questionnaires. Changes in symptoms of obstructive defaecation and faecal incontinence were analysed.

Fifteen patients were included, with a median follow up of 194 days. Prior to evaluation, 33.3% had undergone previous vaginal prolapse surgery and 13.3% rectal prolapse surgery. All evaluated patients underwent transvaginal sacrospinous fixation, and 93.3% also had a posterior vaginal repair. There was a statistically significant improvement in the Faecal Incontinence Severity Index score, the embarrassment and lifestyle components of the Faecal Incontinence Quality of Life Score, the Constipation Scoring System, Obstructed Defaecation Score and the satisfaction component of the Constipation Quality of Life Score.

Transvaginal prolapse surgery leads to a favourable effect on anorectal function with improvements in both obstructed defaecation and faecal incontinence symptoms in this small series.

Translational Relevance: Anorectal dysfunction and pelvic organ prolapse significantly affects quality of life. Our results strongly support development of interdisciplinary connections between gynaecologists and colorectal surgeons to improve patient outcomes. These results directly impact clinical practise and may change the existing care pathway, as transvaginal prolapse surgery could be considered as first line therapy in patients with vaginal prolapse and anorectal dysfunction.

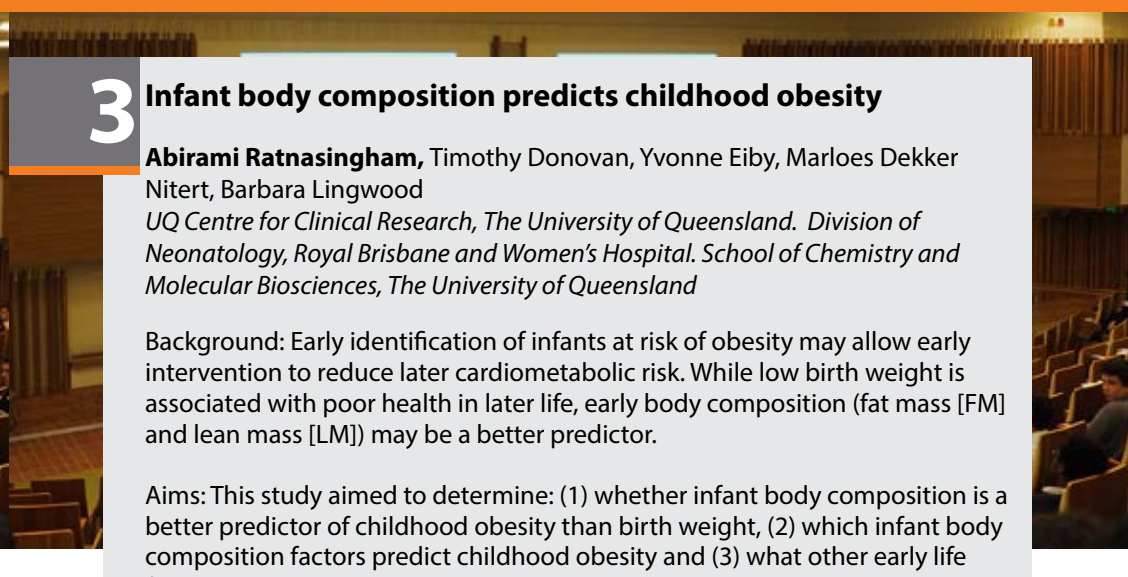
2 Development of theranostic agents for pancreatic ductal adenocarcinoma

Thomas Kryza, Yaowu He, Tashbib Khan, Simon Puttick, Stephen Rose, Tahleesa Cuda, Cameron Snell, Brian Tse, Kamil Sokolowski, Andrew Barbour, Marina Pajic, John Hooper
Mater Research Institute, The University of Queensland, Translational Research Institute. The Commonwealth Scientific and Industrial Research Organisation. Mater Health Services. Pre-clinical imaging facility, Translational Research Institute. Garvan Institute of Medical Research, Darlinghurst, New South Wales

"Pancreatic ductal adenocarcinoma (PDAC) is the fourth most common cause of cancer death with 5 year survival of <10%. Only 20% of cases are eligible for surgery which offers the only option for cure. Inter- and intra-tumour heterogeneity present significant barriers to effective treatment as tumours rapidly evolve cells that are resistant to chemotherapies and targeted agents. To facilitate more accurate detection of PDAC by PET-CT imaging, and better delivery of therapies to overcome tumour heterogeneity, we aim to develop a library of theranostic agents for specific detection and treatment of PDAC tumours.
We have developed a novel bioinformatics pipeline to identify putative theranostic targets in PDAC tumours. Those potential targets are subsequently validated by immuno-histochemistry on human normal and PDAC samples. Then, monoclonal antibodies directed against most promising candidates are evaluated in vitro and in preclinical models for detection and treatment of PDAC.
We have identified several novel PDAC markers which present all the characteristics require to be used as theranostic targets. In pre-clinical models, theranostic agents directed against those targets allow a specific and sensitive detection of PDAC tumours by PET/CT imaging and can be used to deliver cytotoxic compounds specifically to PDAC cells significantly reducing tumour burden and increasing survival.
We generated the proof-of-concept that our approach can successfully identified theranostic targets and agents. In the future, we expect that a combination of our agents could be used to offer to the majority of patients a specific and effective method to detect and treat pancreatic tumours."

Translational Relevance: Our ultimate goal is to develop a set of targeting agents for both detection and treatment of pancreatic cancer. The agents that we are developing and evaluating have significant potential to be translated into clinically useful agents for detection of tumours based on imaging, and for delivery of anti-cancer drugs specifically to pancreatic cancers.

ORAL PRESENTATIONS
SESSION ONE



3 Infant body composition predicts childhood obesity

Abirami Ratnasingham, Timothy Donovan, Yvonne Eiby, Marloes Dekker Nitert, Barbara Lingwood
UQ Centre for Clinical Research, The University of Queensland. Division of Neonatology, Royal Brisbane and Women's Hospital. School of Chemistry and Molecular Biosciences, The University of Queensland

Background: Early identification of infants at risk of obesity may allow early intervention to reduce later cardiometabolic risk. While low birth weight is associated with poor health in later life, early body composition (fat mass [FM] and lean mass [LM]) may be a better predictor.

Aims: This study aimed to determine: (1) whether infant body composition is a better predictor of childhood obesity than birth weight, (2) which infant body composition factors predict childhood obesity and (3) what other early life factors predict childhood obesity.

Methods: This was an observational follow-up study of 130 children recruited as newborns at RBWH in 2007-2010. Body composition was measured by air displacement plethysmography using the PEA POD® during infancy (at birth, 6 weeks, 3 months and 4.5 months old) and the BOD POD® at 8-11 years old. Maternal risk factors (e.g. maternal body mass index [BMI]) and infant feeding information were also recorded. Backward stepwise multiple regression analysis was used to identify significant predictors of childhood obesity.

Results: Childhood percentage fat (%Fat) was not associated with either birth weight or birth weight z-score. Increased %Fat at 6 weeks old was a significant predictor of increased childhood %Fat as were higher maternal BMI and earlier exposure to formula feeding.

Conclusions: Adiposity at 6 weeks old may identify infants at risk of developing childhood obesity. This may enable timely intervention to prevent obesity before it develops. Interventions aimed at reducing maternal BMI before pregnancy and facilitating continued breastfeeding may also help reduce childhood obesity risk."

Translational Relevance: Children represent an important target for the prevention of obesity as childhood obesity tracks into adulthood. Interventions are more successful when introduced early, however this requires early identification of at-risk children. Establishing routine use of the PEA POD® in clinical settings to measure adiposity at 6 weeks could help identify infants at later risk of obesity and enable early intervention.

4 IL-22-based therapies ameliorate hepatic steatosis associated with high-fat diet induced diabetes in mice.

Sahar Keshvari, Christian Fercher, Ross T. Barnard, Johannes B. Prins, Michael A. McGuckin, Sumaira Z. Hasnain
Mater Research Institute - The University of Queensland. School of Chemistry & Molecular Biosciences, The University of Queensland. Melbourne Medical School, The University of Melbourne. Faculty of Medicine, Dentistry and Health Sciences, The University of Melbourne.

"Non-alcoholic fatty liver disease (NAFLD) is strongly associated with type-2 diabetes (T2D), with >70% of patients with T2D having NAFLD.
Interleukin-22 (IL-22) is an immunomodulatory cytokine which acts on non-immune cells via receptor-induced STAT3 phosphorylation; with receptor expression in pancreatic islets, gut and hepatocytes. IL-22 treatment in high-fat diet (HFD)-induced diabetic mice improves islet oxidative/ ER stress, insulin secretion, hyperglycaemia, and insulin sensitivity. IL-22 therapies targeted to pancreas and/or liver can maintain these benefits while preventing unwanted off-target effects. We assess their effect on hepatic steatosis in HFD-induced diabetic mice.
HFD-induced obese mice were treated with IL-22-based biologics (IL-22 and IL-22 fusion protein) for 2 weeks.
Glycaemic control was assessed by oral glucose tolerance test. Hepatic mRNA expression of genes involved in lipid metabolism, hepatocellular lipid accumulation, and triglyceride content were assessed.
Glycaemic ctrl was significantly improved on day 10 of the treatment with a significant reduction in fat mass in mice treated with IL-22 fusion protein. Hepatic steatosis was reduced to NCD levels and SREBP-1c, HMGCR and FAS mRNA expression was significantly reduced by IL-22 fusion protein but not IL-22. Hepatic triglyceride content was lowered with IL-22 fusion protein but not IL-22. There was no evidence of NASH in any group.
In conclusion, targeted-IL-22- therapy improves NAFLD in HFD-induced diabetic mice. More work is needed to elucidate if the main driver of efficacy is improvement in beta cell function (and, hence, glycaemia), or a direct effect on hepatic lipid metabolism, supported by the high level of hepatic STAT3 phosphorylation."

Translational Relevance: We have discovered that Interleukin-22 (IL-22), reduces cellular stress in the pancreas and reduces blood sugar levels in diabetes models. We generated an IL-22-based fusion protein which is targeted to both the pancreas and liver which has anti-diabetic effects and improves NAFLD. This preclinical work informed us whether IL-22 can transition to clinical use as an anti-diabetic and anti-NAFLD drug.

ORAL PRESENTATIONS SESSION ONE

5 Laser dermabrasion: A potential preventative treatment for BCC recurrence

Ho Yi Wong, S. Kapadia, V. Murigneux, E. Roy, K. Khosrotehrani
The University of Queensland, Diamantina Institute

"Despite significant efforts in treating Basal cell carcinomas (BCC), surgical excision of the tumour is still the primary mode of treatment. The high risk of recurrence post-excision (~70% within 5 years) imposes a heavy burden on the health care system costing approximately $700 million annually in Australia.

Accumulation of ultra-violet induced mutations in the basal layer of the epidermis is the primary risk factor for BCC occurrence. Therefore, we hypothesise that laser ablating the mutation bearing basal layer using laser dermabrasion will allow skin cells from the deeper layers to re-populate the UV damaged epidermis with mutation free tissue preventing further BCC recurrence. Evaluation of tumour mutation load followed by next generation sequencing revealed striking differences between dermabrased and non-dermabrased epidermis in patients with recurrent BCCs. None of the screened disease associated mutations were found in 4/5 patients of the dermabrased cohort whereas on average 25 mutations per megabase were present in the non-treated skin. To further examine the efficacy of epidermal abrasion in preventing BCC recurrence, our well established murine models were subjected to chronic UVB irradiation followed by laser dermabrasion. A significant reduction in the number of BCC lesions was found in skin subjected to epidermal abrasion (0.35 bcc/mm2 ± 0.04 compared to 0.07bcc/mm2 ± 0.03).

Overall, these data propose the potential for a novel therapy for patients with recurrent BCCs by effectively targeting the mutation bearing epidermal layer and allowing the natural repair processes to repopulate the damaged epidermis.

Translational Relevance: A potential for a novel therapy for patients with recurrent BCCs by effectively targeting the mutation bearing epidermal layer and allowing the natural repair processes to repopulate the damaged epidermis.

6 Vascular niche E-selectin plays a key role in leukaemia chemoresistance

Johanna Erbani, Valerie Barbier, Joshua Tay, Jessica Lowe, Jean-Pierre Levesque and Ingrid Winkler

Mater Research Institute, Brisbane, Australia. University of Queensland, Brisbane, Australia

Acute myeloid leukaemia (AML) is a haematopoietic malignancy that can resist chemotherapy by hijacking the bone marrow niche, a specialised microenvironment essential to support haematopoietic stem cells. We recently found that the vascular adhesion molecule E-selectin is a key niche component mediating AML chemo-resistance, highlighting E-selectin as a promising therapeutic target.

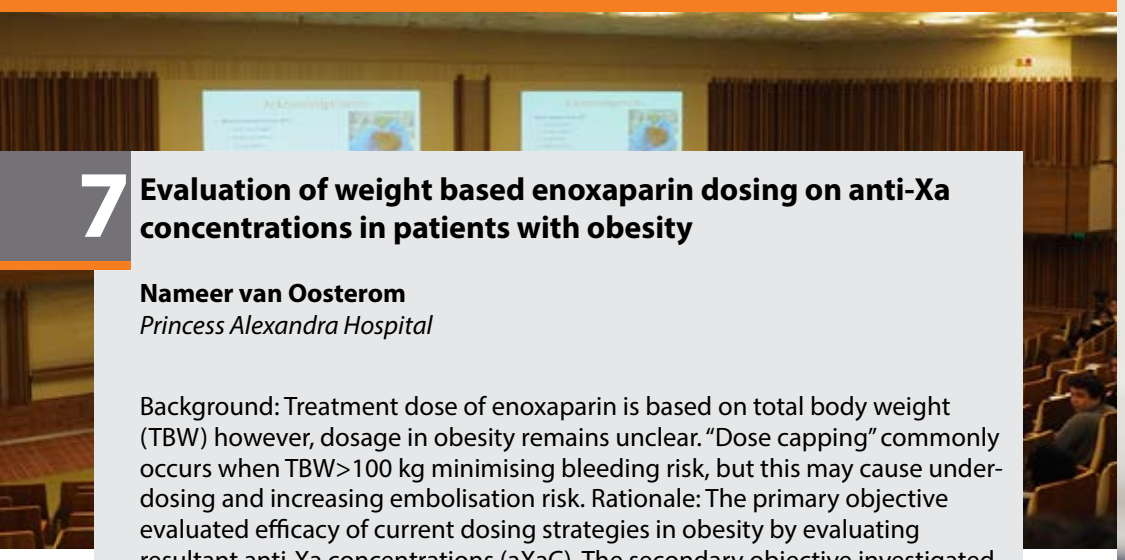
In this study, we characterised the E-selectin receptors involved in this niche-mediated chemo-resistance. We found that CD44 and CD162 were crucial for E-selectin adhesion, as mouse AML cells lacking both receptors failed to bind to E-selectin. Furthermore, we found that in vitro adhesion to E-selectin uniquely boosts mouse AML cell survival to chemotherapy, but only when CD44/CD162 were present. Likewise when transplanted into recipient mice, CD44/CD162-/- AML cells were significantly more sensitive to chemotherapy compared to wildtype AML. Together these results suggest that CD44 and/or CD162 are key E-selectin receptors involved in AML chemo-resistance.

To validate these findings in human, we used CRISPR-Cas9 gene editing to selectively suppress CD44 or CD162 from the human AML cell line KG1a. Interestingly we found that in the absence of CD162, E-selectin could not promote AML survival to chemotherapy in vitro, but was still able to do so in the absence of CD44. This suggests that CD162 could be the main receptor mediating E-selectin's effects.

To conclude, we described a novel form of niche-mediated chemo-resistance, and identified key AML cell surface receptors involved. These findings highlight blockade of E-selectin or its receptors as a novel strategy to improve the treatment of AML."

Translational Relevance: AML is an aggressive blood cancer with a high rate of relapse after treatment. The relapse is caused by rare leukemic cells that survive chemotherapy and re-establish leukaemia. In this work, we study the mechanisms through which these cells can resist chemotherapy. This can lead to the discovery of new therapeutic targets to improve clinical outcomes of patients with AML.

ORAL PRESENTATIONS SESSION TWO



7 Evaluation of weight based enoxaparin dosing on anti-Xa concentrations in patients with obesity

Nameer van Oosterom
Princess Alexandra Hospital

Background: Treatment dose of enoxaparin is based on total body weight (TBW) however, dosage in obesity remains unclear. "Dose capping" commonly occurs when TBW>100 kg minimising bleeding risk, but this may cause under-dosing and increasing embolisation risk. Rationale: The primary objective evaluated efficacy of current dosing strategies in obesity by evaluating resultant anti-Xa concentrations (aXaC). The secondary objective investigated if an uncapped 0.75-0.85 mg/kg (TBW) twice daily dose, advocated by previous authors, results in therapeutic aXaC (0.5–1.0 IU/ml). Methods: A multicentre, retrospective cohort study cross-matched steady-state peak aXaC with enoxaparin dose for obese patients (TBW>100kg) between January 2000 and February 2017. Results: 133 patients were included with a mean TBW of 128kg, producing 59% therapeutic, 15% sub-therapeutic and 26% supra-therapeutic aXaC. Approximately 60% of patients in each dose group (<0.75, 0.75-0.85 and >0.85 mg/kg) had a therapeutic aXaC, however sub-therapeutic versus supra-therapeutic frequency was higher in the <0.75 (27% versus 9%) and >0.85 mg/kg (10% versus 34%) groups respectively. Most patients weighing 100-119 kg (TBW) received doses >0.85 mg/kg, however 32% had toxic aXaC. Those between 120-139 kg (TBW) had a high percentage of therapeutic aXaC (87%) when dosed <0.75 mg/kg and a high percentage of supra-therapeutic aXaC (71%) when dosed >0.85mg/kg. Patients >140kg (TBW) received reduced doses, however <0.75 mg/kg resulted in sub-therapeutic aXaC (42%). Conclusion: Dosing at 0.75-0.85 mg/kg results in highest frequency of therapeutic aXaC. This appears to be a "safe" starting dose-range, however all obese patients should have aXaC monitoring due to high inter-patient variability.

Translational Relevance: Enoxaparin is dosed on total body weight, but dosage in obesity is unrepresented in literature. As obesity is a growing epidemic in Australia, thus, it is imperative these patients are dosed appropriately. Overdosing increasing the risk of bleeding where under-dosing increases embolisation risk. This research was used to update Metro South prescribing guidelines for dosage of enoxaparin.

8 DNA methylation is significantly different between Ankylosing spondylitis cases and healthy controls

Jessica Whyte
Queensland University Of Technology

Background: Ankylosing spondylitis (AS) is an inherited chronic immune-mediated arthropathy, with a complex genetic and immunological basis. Limited understanding of the fundamental biology of AS has impeded the development of novel AS-specific treatments. Our current study aims to describe the functional impact of previously identified AS-associated genetic variants by examining transcriptional and epigenetic changes. We focus on five cell types thought to mediate disease: CD4 T-cells, CD8 T-cells, γδ T-cells, NK cells and CD14 monocytes.

Methods: 50 AS patients and 50 HLA-B27 matched healthy controls were recruited. PBMCs were FACS sorted into the cell types of interest. DNA and RNA were extracted for DNA methylation analysis using the Illumina Human MethylationEPIC Beadchip, and transcriptional analysis using total RNAseq, respectively. Linear regression was used to examine cell-specific interactions between transcription and genotype, DNA methylation and genotype, and interactions between all three.

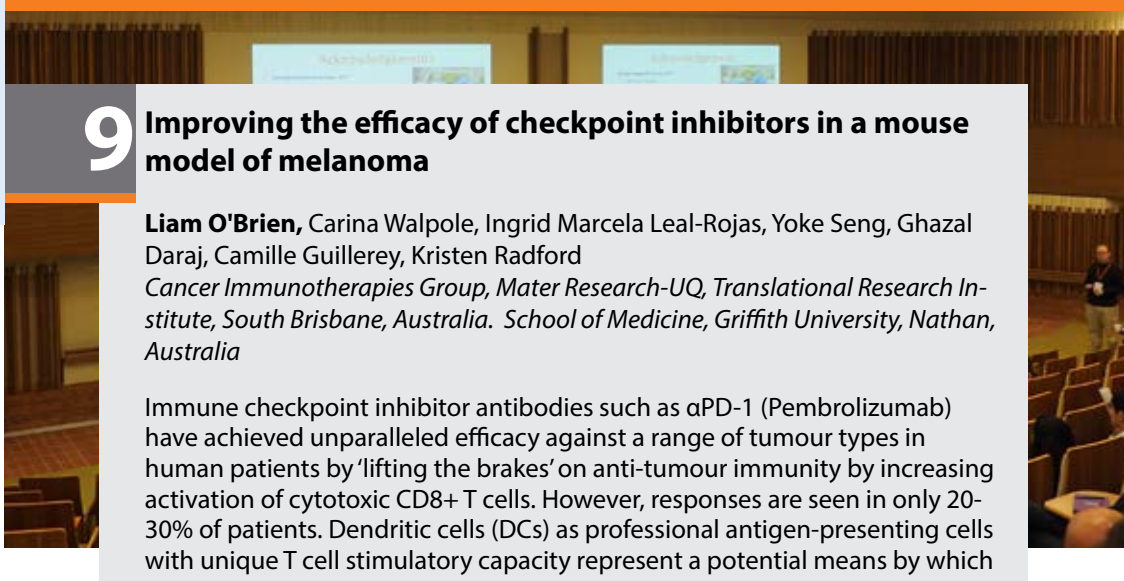
Results: Cell type differentiated samples in both DNA methylation and transcription. When examined within each cell type, DNA methylation was significantly different between cases and controls in CD4 T-cells, CD8 T-cells and CD14 Monocytes ($p<0.05$). The most significant differentially methylated position was within a TSS1500 for WNT10B, which promotes osteoblastogenesis (regulating bone density), and was previously identified as differentially expressed in AS[1]. Differential expression analysis is underway.

Conclusion: This is the first study to show that DNA methylation patterns differ in AS cases and controls in a cell type-dependent manner, and provides a basis for the functional impact of AS-associated genotypes.

1. Talpin, A et al. Arthritis Res Ther 2014;16(4):417."

Translational Relevance: A lack of understanding of the fundamental basis of AS has prevented development of targeted treatments. This study provides preliminary evidence for DNA methylation changes in AS, that may explain the functional mechanism of AS-associated loci. This will provide a basis for future functional work and potential drug candidate selection.

ORAL PRESENTATIONS SESSION TWO



9 Improving the efficacy of checkpoint inhibitors in a mouse model of melanoma

Liam O'Brien, Carina Walpole, Ingrid Marcela Leal-Rojas, Yoke Seng, Ghazal Daraj, Camille Guillerey, Kristen Radford
Cancer Immunotherapies Group, Mater Research-UQ, Translational Research Institute, South Brisbane, Australia. School of Medicine, Griffith University, Nathan, Australia

Immune checkpoint inhibitor antibodies such as αPD-1 (Pembrolizumab) have achieved unparalleled efficacy against a range of tumour types in human patients by 'lifting the brakes' on anti-tumour immunity by increasing activation of cytotoxic CD8+ T cells. However, responses are seen in only 20-30% of patients. Dendritic cells (DCs) as professional antigen-presenting cells with unique T cell stimulatory capacity represent a potential means by which to improve response rates. We have developed a humanized mouse model of melanoma, where DC targeting and other novel immunotherapies can be evaluated, by engrafting immunodeficient NSG-SGM3 mice with CD34+ hematopoietic stem cells (HSCs) from umbilical cord blood. Mice were tested for human immune engraftment (%huCD45+) in peripheral blood before they were challenged with patient-derived melanoma cells between 8 and 12 weeks of age. In this model, the anti-tumour effect of αPD-1 was enhanced by expanding and activating DCs with Flt-3 ligand (Flt3L) and polyI:C. To determine the DC subset/s responsible for this effect, we sorted CD11c+/CD141+ (Type I) and CD11c+/CD141- (Type II) DCs from spleen and bone marrow of Flt3L-treated humanized mice, treated cells in vitro with polyI:C, then injected activated DCs into tumour-bearing mice. Injection of Type I DCs, but not Type II DCs, resulted in reduced tumour growth in combination with anti-PD-1 treatment. These results provide rationale for further studies targeting human Type I DCs to increase response rates to immune checkpoint inhibitor therapy. Further, our model allows the efficacy of human-specific immunotherapies to be tested against human tumour cells.

Translational Relevance: Recent developments in immunotherapy which use the patient's own T cells to kill eliminate cancer has revolutionised the treatment of late-stage melanoma. However, only 20-30% of patients respond to this treatment, as T cells are often excluded from the tumour. Dendritic cells are another immune cell which can attract T cells to tumours; we targeted them to enhance immunotherapy responses.

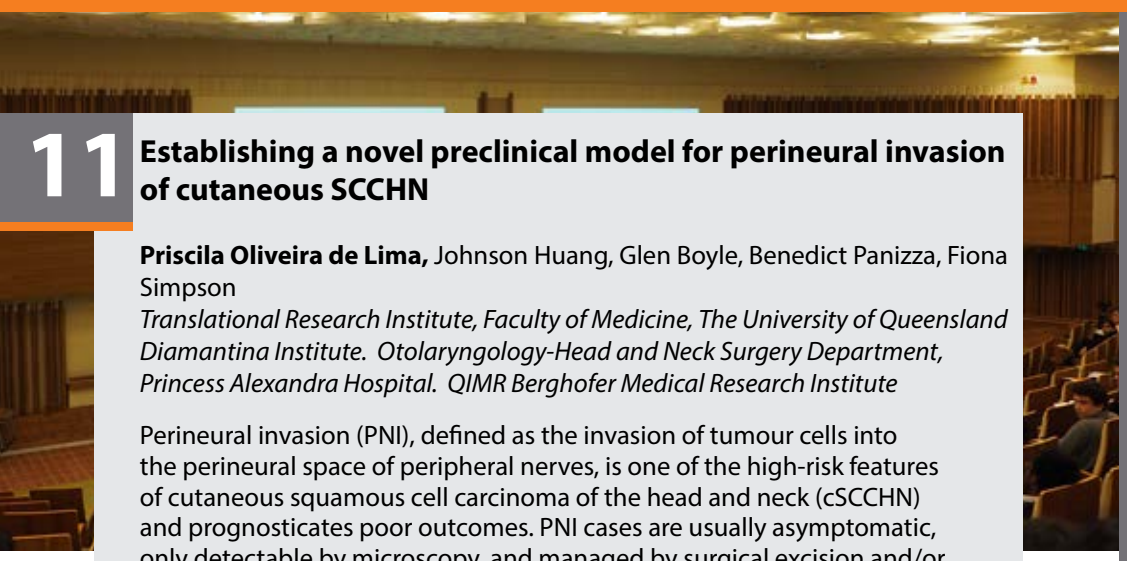
10 A 12-week multidisciplinary integrated treatment approach is superior to standard care for symptom improvement in functional gastrointestinal disorders (FGID) patients: a case-control study.

Nicola Bray
University Of Queensland, Translational Research Institute, Princess Alexandra Hospital

Background: FGIDs generally result from complex biological, psychological, and social interaction. However, current treatments target the biologic disease mechanism in contrast to multidisciplinary integrated treatment approaches that target various potential disease mechanisms.
Rationale: However, thus far the efficacy of such treatment approaches has been little studied. We aimed to examine whether a multidisciplinary approach, the Integrated Care Clinic (ICC), reduced the overall symptom burden in FGID patients compared to standard treatment.
Methods: We recruited 52 consecutive gastroenterology outpatients with a severe manifestation of FGID and matched them with 52 control FGID patients (based upon diagnosis, age, gender). ICC patients received standardised assessment and treatment by a gastroenterologist, general practitioner, psychologist, dietician, and exercise physiologist. Control patients received standard care by a gastroenterologist. The validated Structured Assessment of Gastrointestinal Symptoms scale (SAGIS), measured the intensity of 22 upper and lower gastrointestinal symptom burden, 0= no problem to 4= very severe problem. Primary outcome was the change in total SAGIS symptom burden score in ICC patients post intervention compared to standard treatment patients. Within-subject changes were compared within the matched pairs using the Wilcoxon Signed-Ranks test.
Results: The total SAGIS score was reduced by 36% in ICC patients compared to 8% in controls (Median ICC = 9 vs. control = 1; p = 0.001). Clinically significant reductions in total SAGIS score were present in 57% of ICC patients compared to 23% of controls.
Conclusion: A 3-month multidisciplinary treatment approach results in superior symptom improvement as compared to the standard treatment approach."

Translational Relevance: Research highlights the importance of understanding the complex interactions between the brain and the gastrointestinal system in Functional gastrointestinal disorders. However, integrated psychosocial and medical care treatment approaches are limited. My project examines an innovative biopsychosocially informed model of care involving medical professionals translating evidence cooperatively into health care improvements and change in practice through multidisciplinary integrated personalised treatments.

ORAL PRESENTATIONS SESSION TWO



11 Establishing a novel preclinical model for perineural invasion of cutaneous SCCHN

Priscila Oliveira de Lima, Johnson Huang, Glen Boyle, Benedict Panizza, Fiona Simpson
Translational Research Institute, Faculty of Medicine, The University of Queensland Diamantina Institute. Otolaryngology-Head and Neck Surgery Department, Princess Alexandra Hospital. QIMR Berghofer Medical Research Institute

Perineural invasion (PNI), defined as the invasion of tumour cells into the perineural space of peripheral nerves, is one of the high-risk features of cutaneous squamous cell carcinoma of the head and neck (cSCCHN) and prognosticates poor outcomes. PNI cases are usually asymptomatic, only detectable by microscopy, and managed by surgical excision and/or radiotherapy. However, the disease often spreads to sensory and/or motor nerves, particularly the trigeminal or facial nerves. PNS is associated with high morbidity and mortality, 1/3 patients succumb to this disease after approximately 30 months and there is no current targeted therapy for these patients. The aim of this project is to establish a humanised model that mimics the process of PNI of cCSSHN. A431-Luc2 cells were subcutaneously injected on the whisker pad of NSG-A2 mice. Tumours were surgically resected when they reached 200-500mm3. PNI was observed by IVIS imaging system. Mice were euthanized on the second week post-surgery; their heads were removed, fixed and decalcified. Processed samples were sectioned at 90° to the plane of the maxillary division of the trigeminal nerve. Analysis by haematoxylin and eosin stain and immunohistochemistry using anti-cytokeratin AE1/AE3 and S100 were performed. Preliminary results showed that 2/7 mice developed PNI. Cancer cells surrounding the nerve was observed in another mouse. Two mice also developed tumours in the neck region, suggesting lymph node metastasis. Further optimisation of this model is still required. The next step is to inject the mice with human immune cells and treat them with combination therapy after surgery.

Translational Relevance: Based on previous data, our hypothesis is that mAb therapies, such as anti-EGFR, in combination with prochlorperazine could be efficient in treating perineural disease. Using this model we will be able to identify potential therapeutic targets for perineural disease. Ultimately, demonstration of therapeutic efficacy in the preclinical animal models will provide data to support a clinical trial application.

12 Harnessing Anti-inflammatory Gut Bioactives to Modulate the Immune Response in IBD

Rabina Giri, Páraic Ó Cuív, Jakob Begun

Mater Research Institute-The University of Queensland. School of Medicine, The University of Queensland. Translational Research Institute, Brisbane

Introduction: Under homeostatic conditions, the gut immune system exists in a tolerogenic state with the microbiota. In this study, the ability of bioactives produced by anaerobic gut bacteria cultured from healthy human fecal samples to modulate NF-kB activity, their biochemical properties and their ability to alleviate colitis were investigated.
Methods: The NF-kB suppressive effects of culture supernatants (CSs) from 23 different isolates were tested on colonic epithelial cell lines containing a NF-kB luciferase reporter. The ability of CSs to suppress IL-8 production from human-derived whole peripheral blood mononuclear cells (PBMCs) and human-derived colonic organoids from IBD patients and healthy controls was tested. Furthermore, CS from strain AHG0001 was also tested in the Winnie spontaneous colitis model.
Results: Stimulation of LS174T and Caco-2 reporter cells with TNFalpha and IL-1beta respectively, resulted in increased NF-kB dependent luciferase activity. Of the 23 isolates screened, CS from five isolates significantly suppressed NF-kB activation. The selected CSs also suppressed IL-8 secretion in PBMCs and gut organoids from both UC and CD patients, as well as healthy controls, with notable individual variation. Rectal gavage of CS from AHG0001 also reduced disease activity, improved histologic inflammation and reduced the proinflammatory gene expression in Winnie mice.
Conclusions: Our anaerobic culturing and NF-kB reporter assay system allows for the rapid identification of bacteria producing immunomodulatory bioactives. Our in vivo and ex vivo testing utilizing spontaneous colitis model and patient derived organoids demonstrates the potential of precision medicine-based approaches for bacterial based therapeutics."

Translational Relevance: The establishment of the immuno-modulatory assays using cell lines and patient derived organoids allows for rapid identification of bacteria producing immuno-modulatory bioactive , which could lead to the future development of novel personalised therapeutics.

TRANSLATIONAL RELEVANCE PRIZE SHORTLIST

Poster Presentations
Tuesday, August 6th

Awards Ceremony
Tuesday 6th August
4:45pm
TRI Auditorium
Translational Relevance Prize

The following Translational Relevance Shortlist of poster presenters were selected based on scores of the Translational Relevance section of the abstract submission process. The winner of the Translational Relevance Prize will be the shortlisted presenter with the highest poster score and will be announced on Tuesday, 6th August, in the TRI Auditorium Awards Ceremony.

Poster presenters marked with gold confetti indicate their appearance on the Translational Relevance Shortlist.

Congratulations to the selected Translational Relevance Shortlist Poster Presenters for 2019!

9 Anne-Sophie Bergot

Anne-Sophie Bergot, Irina Buckle, Meghna Talekar, Jeniffer Loaiza Naranjo, Sumana Cikaluru, Emma E. Hamilton-Williams and Ranjeny Thomas

UQ Diamantina Institute, The University of Queensland

Islet-specific Liposomes Induced Diabetes Protection is Dependent on Islet-specific Regulatory T cells Reprogramming

These preliminary pre-clinical evidence support the first in-human T1D trial in at-risk children with the use of liposomes delivered subcutaneously, encapsulating calcitriol/D3 and one single islet peptide, with cell immunomonitoring in peripheral blood using tetramers. This trial has been funded by a JDRF/ Helmsley Charitable Trust (HCT) grant and has started this year.

58 Raymond Ho

Raymond Ho, Zhiyong Li

School of Chemistry, Physics and Mechanical Engineering, Science and Engineering Faculty, Queensland University of Technology (QUT), Innovative Cardiovascular Engineering Technology Laboratory Clinical Services, The Prince Charles Hospital

Characterisation of Gaseous and Solid Embolic Pathlines During Cardiopulmonary Bypass: A Numerical and Invitro Study

The significance of these results provides information to assist the surgical team's decision making at workup and during surgery of how emboli movement can be affected by specific aortic cannulation variables. The importance of this study provides an increase in quality and better procedures by assisting in developing a consistent cannulation approach and contributing to more informed guidelines.

TRANSLATIONAL RELEVANCE PRIZE SHORTLIST

59

Natali I Naude

Natali Naude, Gorane Santamaria, Chris Foster, Aaron Urquhart, Graham Galloway, Saadallah Ramadan, Scott Quadrelli, Lisa Rich, Jessica Buck, Peter Malycha, Ian Bennet, Thomas Lloyd, Carolyn Mountford.

Translational Research Institute. Queensland University of Technology. Princess Alexandra Hospital. The University of Newcastle, NSW, Australia.

Chemical deregulation in breast tissue of women at familial high risk correlates with IBIS risk calculator

Application of the method has the potential to allow screening in high risk populations in a non-invasive manner, without the use of Gadolinium-based contrast agents.

91

Patrick Thomas

Patrick Thomas, Inge Seim, David Cruden, Ian Vela, Elizabeth D. Williams

Queensland Bladder Cancer Initiative (QBCI). Australian Prostate Cancer Research Centre–Queensland, Queensland University of Technology (QUT). Integrative Biology Laboratory, College of Life Sciences, Nanjing Normal University, Nanjing, Jiangsu, China. Department of Urology, Princess Alexandra Hospital, Brisbane, Queensland, Australia.

Detection of gonorrhoeae in prostate cancer tissues

Our proposed study has major public health implications. It provides important pilot data that will form the basis of analyses addressing the potential interplay between a common, often-multi-drug resistant sexually transmitted infection and the most common cancer in Australian men. Identifying factors that contribute to the initiation and/or progression of clinically significant PCa is key to developing novel therapeutic approaches.

100

Tania Duarte

Tania Duarte, Lachlan Coin, Derek Sarovich, Erin Price, Son Nguyen, Thuy-Khanh Nguyen, Tamieka Fraser, Scott Bell

Institute for Molecular Bioscience, The University of Queensland. GeneCology Research Centre, University of the Sunshine Coast. QIMR Berghofer Medical Research Institute. Metro North Hospital and Health Service, Royal Brisbane and Women's Hospital. The Prince Charles Hospital, Chermside.

Deep Sequencing of Microbial Communities in Cystic Fibrosis Airways

The Oxford Nanopore Technologies portable sequencer (MinION) has proven to be much faster (less than 1 day to get the results) and more sensitive than the existent culture methods for microbial characterization of human infections. The faster we can do the diagnostic the quicker we give the right antibiotic avoiding administration of unnecessary antibiotics and the raise of resistance.

77

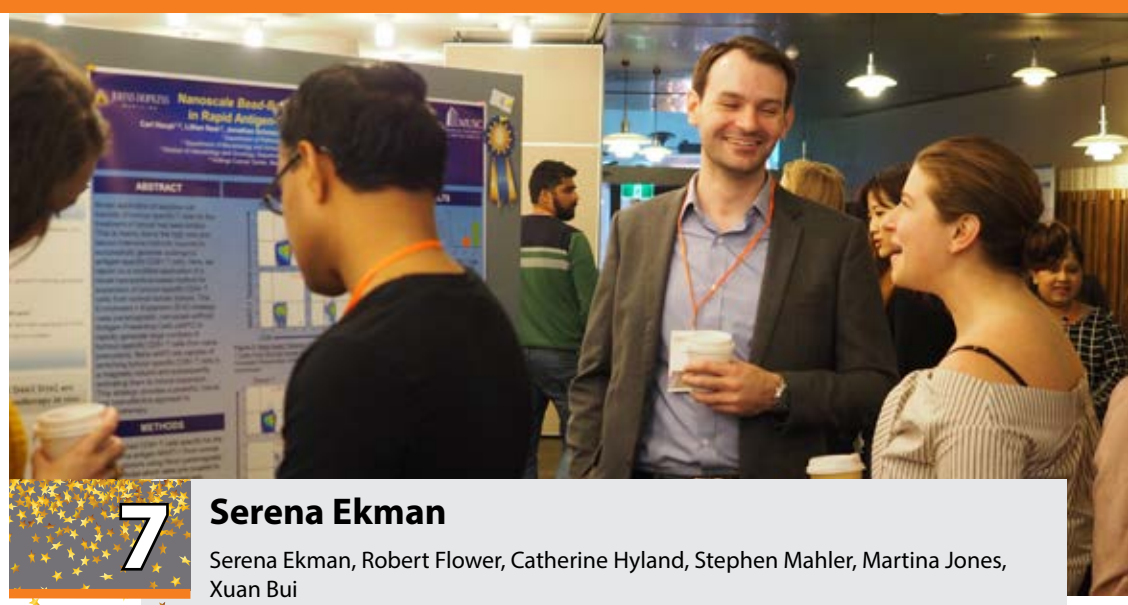
Shannon Ryan

620 Stanley Street, Woolloongabba, QLD

Building better science communicators

The inability to communicate science to a general audience can decrease the impact and translational potential of research, yet researchers rarely receive training to help them better engage with the general public. The BRIDGE program is founded on the simple idea that scientists speaking about their own research make the best science communicators. They just need some help.

TRANSLATIONAL RELEVANCE PRIZE SHORTLIST



7

Serena Ekman

Serena Ekman, Robert Flower, Catherine Hyland, Stephen Mahler, Martina Jones, Xuan Bui

Centre for Biopharmaceutical Innovation, Australian Institute for Bioengineering and Nanotechnology, University of Queensland. Australian Red Cross Blood Service R&D Department

Screening for novel monoclonal antibodies recognizing glycophorin b antigens via biopanning

The ultimate goal of this project is to produce routine screening reagents that are able to identify antigen-negative red blood cells, thus reducing the risk of haemolytic transfusion reactions.

16

Lisa Gillinder

Princess Alexandra Hospital

Making our EDs 'sharps safe'; Understanding staff attitudes and current use of sharp safety devices

This results of this work can be rapidly translated into clinical practice, creating a new differential diagnosis for the management of epilepsy and potential new treatment avenues for patients who currently have few options.

17

Kai Dun Tang

Kai Dun Tang, Yunxia Wan, Natalie Bozyk, Xi Zhang, Liz Kenny and Chamindie Punyadeera

The School of Biomedical Sciences, Institute of Health and Biomedical Innovation, Queensland University of Technology and The Translational Research Institute. School of Medicine, University of Queensland; Royal Brisbane and Women's Hospital, Brisbane; Central Integrated Regional Cancer Service, Queensland Health

A "needleless" approach to detect HPV16-driven oropharyngeal cancer.

This project demonstrates a model of care that successfully translates evidence based treatments for acute coronary syndrome into improved outcomes for a disadvantaged group of patients.

18

Lucia Zacchi

Lucía F. Zacchi, Dinora Roche Recinos, Cassandra Pegg, Toan K. Phung, Ellen Otte, Tony Hunt, Christopher B. Howard, Yih Yean Lee, Benjamin Schulz

Australian Research Council, Centre for Biopharmaceutical Innovation (CBI), Australian Institute of Bioengineering and Nanotechnology (AIBN), The University of Queensland (UQ). Centre for Advanced Imaging (CAI), The University of Queensland. School of Chemistry and Molecular Biosciences (SCMB), The University of Queensland. CSL Limited, Parkville, Melbourne

Making better and cheaper drugs with mass spectrometry proteomics

The increasing demand on biopharmaceutical products is pressuring the industry to produce more and better therapeutics. We are developing proteomic techniques that assess both quality and quantity of a biotherapeutic during production, with the goal of facilitating bioprocess optimization. These workflows can be adapted to any protein of interest, produced with any biological platform, during any fermentation conditions.

POSTER PRESENTATIONS

Poster Presentations
Tuesday, August 6th

Session 1: 9:30am - 10:45am
Session 2: 12:30pm - 1:45pm
Session 3: 2:45pm - 4:00pm

Awards Ceremony
Tuesday 6th August 4:45pm
TRI Auditorium
Translational Relevance Prize

2019 CATEGORIES

DISCOVER
Investigate the what, why and how behind biological processes through fundamental research and proof of concept work

DEVELOP
Improve and design treatments, technologies, detection and delivery systems that would enable the fundamental research to be translated into a pre-clinical setting

DELIVER
Optimize and commercialize diagnosis, prognosis and treatments of preventative approaches in the clinical setting

1 Ghazaleh Hashemi
UQ Diamantina Institute, The University of Queensland, Brisbane, Queensland Australia
The role of endovascular progenitors in vessel formation in melanoma

2 Charles Bidgood
Australian Prostate Cancer Research Centre–Queensland, Queensland University of Technology
High-content screening of small molecule inhibitors from the Australian biota targeting prostate cancer metabolism.

3 Khawla Jaber
Queen Elizabeth II Jubilee Hospital
Improving safety measures during laser surgeries in the operating theatre

4 Faheem Maqbool
School of Pharmacy, The University of Queensland
Production of Liposomes using supercritical fluid technology and active targeting of peptide to gastrin releasing peptide receptor

5 Nazanin Falconer
Princess Alexandra Hospital
Prioritising hospital patients at high-risk of medication harm: development and validation of a predictive risk model

6 Stanimira Kartolova
Princess Alexandra Hospital
Using the ieMR to compare presenting complaint, ED diagnosis and in patient diagnosis

7 Serena Ekman
Centre for Biopharmaceutical Innovation, Australian Institute for Bioengineering and Nanotechnology, University of Queensland, Brisbane, QLD, Australia and Australian Red Cross Blood Service R&D Department, Kelvin Grove, QLD, Australia
Screening for novel monoclonal antibodies recognizing glycophorin b antigens via biopanning

8 Michael MacDonald
Australian Research Council Training Centre for Biopharmaceutical Innovation
Improving Pharmaceuticals Production in Cell Factories by Reducing Cell Death

9 Anne-Sophie Bergot
UQ Diamantina Institute, The University of Queensland
Islet-specific Liposomes Induced Diabetes Protection is Dependent on Islet-specific Regulatory T cells Reprogramming

10 Candice Lee
Institute of Health and Biomedical Innovation, Queensland University of Technology
Ubiquitous transgenic expression of IL-23 to mediate disease pathogenesis in spondyloarthritis

11 Zarqa Saif
Mater Research Institute, The University of Queensland
A new glucocorticoid regulated placental mechanism that upregulates inflammation in small for gestational age babies

12 Madushan Fernando
Mater Research Institute, The University of Queensland
AURKA overexpression overcomes the ATM dependent checkpoint in melanoma

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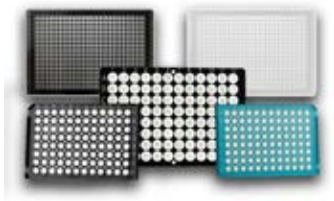

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POSTER PRESENTATIONS

POSTER PRESENTATIONS

20 **Ramez Barsoum**
Princess Alexandra Hospital (Metro South)
A Multicentre Analysis of Hidradenitis Suppurativa (HS) Tissue cultures

21 **Marzieh Negahban**
Innovative Medicines Group, Queensland Univeristy of Technology
Antimicrobial and cell viability effects of an indigenous plant

22 **Kerrin Watter**
ABI TRS, Division Of Rehabilitation, Princess Alexandra Hospital
Reading deficits after brain injury: Developing an evidence-based approach

23 **Saeid Alinezhad**
Princess Alexandra Hospital
Introduction of shRNA targeting androgen receptor inhibit tumour growth in prostate cancer patient-derived xenografts

24 **Delaney Burnard**
Princess Alexandra Hospital
Comparative genomics and MIC testing of Australian Elizabethkingia isolates: discovering their diversity

25 **Xi Zhang**
Institute of Health and Biomedical Innovation, Queensland Univeristy of Technology
A simple saliva test to identify Heart Failure patients as risk of adverse events

26 **Gayathri Thillaiyampalam**
UQ Diamantina Institute, University of Queensland
miR-34a-5p regulates immune checkpoint receptor PD-1 in natural killer cell activation against cancer cells

27 **Ayaho Yamamoto**
The Queensland Univeristy of Technology, Translational Research Institute
The airway epithelium: Oxidative stress and Cellular senescence

28 **Ankit Shukla**
UQ Diamantina Institute, University of Queensland
Chromosome arm aneuploidies shape tumour evolution, cancer prognosis and precision oncology

29 **Ben Vezina**
Griffith Institute for Drug Discovery, Griffith University
Discovery of novel circular bacteriocins

30 **Lena Batoon**
Mater Research Institute, University of Queensland
Osteomacs promote regeneration after fracture and sustains bone homeostasis in osteoporotic bone

31 **Mohammed Monzur Morshed**
Child Health Research Centre (CHRC), The University of Queensland
Kinetic expression of genes and receptors during monocyte to macrophage differentiation cysticfibrosis

POSTER PRESENTATIONS

32 **Annika Krueger**
UQ Diamantina Institute, University of Queensland
Staphylococcus aureus secreted proteins as local regulators of epithelial inflammation in photo-damaged skin

33 **Sal Lee Goh**
Therapeutic Research Centre, UQ Diamantina Institute, University of Queensland
Direct Differentiation of Human Mesenchymal Stem Cells to Cholangiocyte Cells

34 **Kavita Bisht**
Mater Research Institute - University of Queensland
Erythropoiesis suppression by bacterial liposaccharides is extrinsically mediated independently of G-CSF

35 **Angus Douglas (On behalf of Monica Ding)**
Queen Elizabeth II Jubilee Hospital
A scoping review of patients' perception of electronic medical record implementation in the emergency department

36 **Peiyu Wang**
Institute of Health and Biomedical Innovation, Queensland Univeristy of Technology
Cold Atmospheric Plasma Selectively Inhibits 'Triple Negative' Human Breast Cancer Cell Lines – Effects on EMP

37 **Yu Hin Tang**
Australian Prostate Cancer Research Centre - Queensland, Queensland University of Technology
Investigating the role of Neuropilin-1 in triple-negative breast cancer

38 **Nathan Quigley**
The Royal Brisbane and Women's Hospital, University of Queensland
Current and novel diagnostic investigations applied simultaneously in a cohort of patients with suspected laryngopharyngeal reflux

39 **Darshan Shah**
Princess Alexandra Hospital
Endovascular thrombectomy in the real world: Single Center Experience of Princess Alexandra Hospital

40 **Nicola Warren**
Metro South Addiction And Mental Health
Anti-NMDAR encephalitis testing in psychiatry

41 **Ghazal Daraj**
School of Environment and Science, Griffith University
Human dendritic cell subsets produce Type III IFN in response to STING agonists

42 **Tushar Kumeria**
School of Pharmacy, The University of Queensland
Porous Silicon Nanoparticles for Bioimaging

43 **Samuel Kelly**
UQ Diamantina Institute, University of Queensland
Defining the diversity of conventional dendritic cells

44 Sara Hassan

Institute of Health and Biomedical Innovation and School of Biomedical Sciences, Queensland University of Technology and Translational Research Institute.

Epithelial-mesenchymal plasticity in circulating tumour cells from metastatic patients and PDX models

45 Robert Ellis

University Of Queensland

A clinical tool to stratify risk of chronic kidney disease after surgical management of kidney cancer

46 Juliana Müller Bark

Institute of Health and Biomedical Innovation, Queensland Univeristy of Technology

Tracking pseudoprogression in glioblastoma patients using a liquid biopsy

47 Sugandha Bhatia

Institute of Health and Biomedical Innovation, Queensland Univeristy of Technology

Pooled shRNA library screening for doxorubicin, docetaxel and eribulin chemoresistance in MDA-MB-468 breast cancer cells

48 Leah Vegh

Princess Alexandra Hospital

Physiotherapy "ICU OUTREACH" support care of the deteriorating patient

49 Sara Motamen

Princess Alexandra Hospital

Discovery of Ligand Structure-activity Relationship by Mass Spectrometry: Identification of New Tuberculosis Inhibitors

50 **Xin Dong**

Queensland University of Technology

Avoiding Voxel Contamination in 1H-MRS of the Human Kidney Cortex

51 **Shuichi Suetani**

Logan Hospital

A comparison study of three physical activity measurement tools examining acceptability in people with psychotic disorders

52 **Natale Snape**

Princess Alexandra Hospital

Specific Antibody Response to Seasonal Influenza Vaccine in Chronic Obstructive Pulmonary Disease (COPD) and Healthy Older People.

53 **Phoebe Brandis**

Princess Alexandra Hospital

Treatment of Tremor at the Princess Alexandra Hospital with Gamma Knife Radiosurgery

54 **Ellen Tejo**

University of Queensland

Mysteries of Glycogen in the Periconceptional Ethanol-Exposed Placenta

55 **Mei Zhou**

Mater Research Institute, University of Queensland

Chronic stress-induced alterations in properties of adult-born hippocampal neurons directly regulate anxiety-related behaviours

56 **Paria Saadat**

Queensland Bladder Cancer Initiative (QBCI), Queensland Univeristy of Technology

Patient derived organoids of bladder cancer

57 **Zeng Guo**

Hypertension Unit, University of Queensland

Biochemical and Histopathological Differences between Posture-Responsive and Unresponsive Aldosterone-Producing Adenomas

58 **Raymond Ho**

School of Chemistry, Physics and Mechanical Engineering, Queensland University of Technology

Characterisation of Gaseous and Solid Embolic Pathlines During Cardiopulmonary Bypass: A Numerical and Invitro Study

59 **Natali I Naude**

Queensland University of Technology

Chemical deregulation in breast tissue of women at familial high risk correlates with IBIS risk calculator

60 **Saeid Alinezhad**

Princess Alexandra Hospital

Enrichment and in vitro culture of circulating tumour cells from patients with gastro intestinal neuroendocrine carcinoma

61 **Nicola Warren**

Metro South Addiction And Mental Health

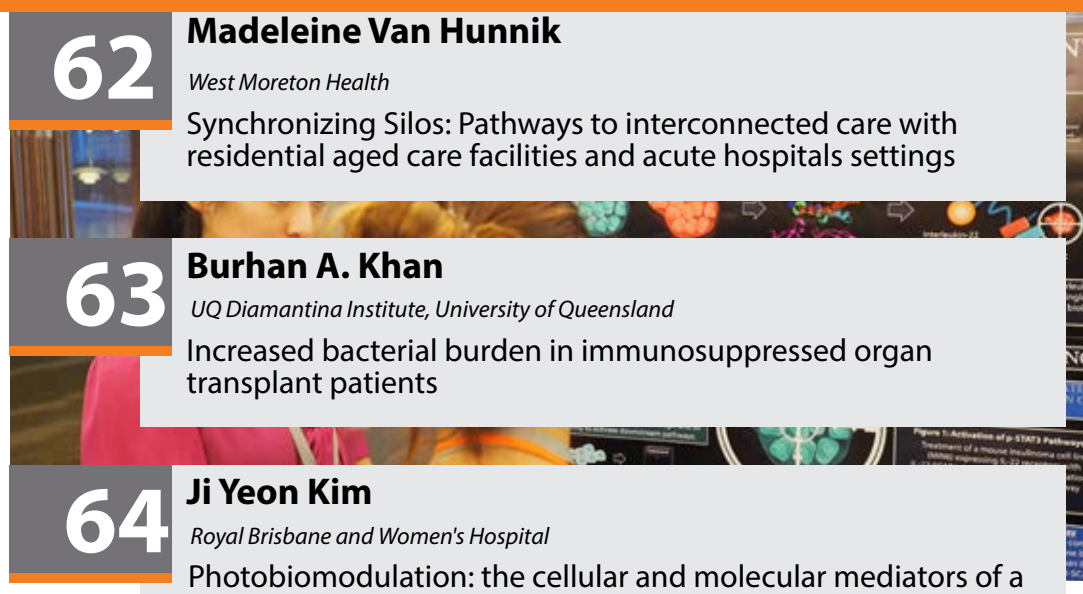
The role of psychiatry in management of anti-NMDAR encephalitis

POSTER PRESENTATIONS

62 **Madeleine Van Hunnik**

West Moreton Health

Synchronizing Silos: Pathways to interconnected care with residential aged care facilities and acute hospitals settings



63 **Burhan A. Khan**

UQ Diamantina Institute, University of Queensland

Increased bacterial burden in immunosuppressed organ transplant patients

64 **Ji Yeon Kim**

Royal Brisbane and Women's Hospital

Photobiomodulation: the cellular and molecular mediators of a novel neuroprotective therapy

65 **Denise Goh**

UQ Diamantina Institute, University of Queensland

Understanding the functions of exogenous IL-33 on dendritic cells in a HPV+ skin disease model

66 **Jane Gifkins**

Princess Alexandra Hospital

"A Qualitative Approach to the Impact of Shiftwork on Eating Patterns and Diet in Experienced and Inexperienced Nurses."

67 **Mischa Lundberg**

UQ Diamantina Institute, University of Queensland

Dissecting the genetic architecture of chronic pain using CTG-VL – Complex-Traits Genetics Virtual Lab

68 **Semira Hailu**

Mater Research Institute, University of Queensland

Identification of a Novel Target for Host-directed Therapy against Intracellular Pathogens

69 **Jessica Turner**

Mater Research Institute, University of Queensland

Intrapartum placental transfer of sildenafil citrate in term pregnancies

70 **Yassmin Musthaffa**

Department of Endocrinology and Diabetes, Queensland Children's Hospital, University of Queensland Diamantina Institute

Identification of patients with Type 1 Diabetes Suitable for Antigen-specific Tolerising Immunotherapy

71 **Sugarniya Subramaniam**

Australian Prostate Cancer Research Centre, Queensland University of Technology

Allele specific regulation of PDK1 by miRNAs in prostate cancer

72 **Rachel Brimelow**

Princess Alexandra Hospital

Protocol to develop a mental health benchmarking tool for use in residential aged care settings

73 **Tashbib Khan**

Mater Research Institute - University of Queensland

Using ex vivo culture to bridge the gap between bench and bedside in ovarian cancer

74 **Amelia Fotheringham**

Mater Research, University of Queensland,

AGE and sRAGE regulation in response to increasing glucose loads in individuals with recently diagnosed type 2 diabetes

75 **Ut Cheung**

Glycation and Diabetes Complications Group, University of Queensland

Targeting Mitochondrial Dysfunction in Diabetic Kidney Disease

76 **Heather Batten**

Princess Alexandra Hospital

The relationship between gait speed, prosthetic potential and function in people with lower limb amputation

77 **Shannon Ryan**

Princess Alexandra Hospital

Building better science communicators

78 **Jemma Robb**

Princess Alexandra Hospital

Cold-water extraction of codine works... most of the time

79 **Shamima Banu Mohamed Ansari**

Princess Alexandra Hospital

The effectiveness of different methods of debriefing in reducing simulation-induced anxiety (SIA) within the Emergency Department (ED)

POSTER PRESENTATIONS

80 **Xiaoyu Hou**
Faculty of Medicine, Diamantina Institute, University of Queensland
Immunotherapy of Established HPV-associated Cancers by Combination of Immunomaterial Technology and E7 Long Peptide Vaccines

81 **Rizwana Afroz**
School of Pharmacy, Pharmacy Australia Centre of Excellence, University of Queensland
Bacterial lipopolysaccharide stimulates glycosaminoglycan chain elongation: the link between infection and atherosclerosis

82 **Srilakshmi Srinivasan**
Institute of Health and Biomedical Innovation and School of Biomedical Sciences, Queensland University of Technology
A functional PSA prostate cancer susceptibility genetic variant confers both reduced and aggressive cancer risk

83 **Asmerom Sengal**
Institute of Health and Biomedical Innovation, Queensland University of Technology
Mesenchymal splice isoform Fibroblast Growth Factor Receptor (FGFR2c) is an independent prognostic biomarker and further refines risk stratification within endometrial cancer molecular subtypes

84 **Raymond Quan**
Centre for Children's Burns & Trauma Research, Centre for Children's Health Research
Burn Wound Progression: A Histological Analysis of the Mechanisms Responsible

85 **Md Anayet Hasan**
UQ Diamantina Institute, University of Queensland
Non-genotoxic conditioning facilitates tolerance induction through stable mixed hematopoietic chimerism of gene modified BM

86 **Julia Watson**
Queensland Univeristy of Technology
Monitoring Acute Low Back Pain using 2D Correlated Spectroscopy of the Brain at 3T: A Case Study

87 **David Highton**
Princess Alexandra Hospital
Impact of anaesthetic technique on stroke outcome treated with endovascular therapy

88 **Ramez Barsoum**
Princess Alexandra Hospital (Metro South)
Clinical Dermatology Photography and Patient Consent: The Princess Alexandra Experience

89 **Aihua (Nicole) Wu**
Faculty of Medicine, University of Queensland
Administration of exogenous mineralocorticoids and potassium is associated with a reduction in pendrin abundance in urinary exosomes from patients with primary aldosteronism

90 **Kathy Luong (On behalf of Monica Ding)**
Queen Elizabeth II Jubilee Hospital
Do consumers who identify as Muslim experience cultural sensitive care (CSC) in the Emergency Department (ED)? A scoping review

91 **Patrick Thomas**
Institute of Health and Biomedical Innovation, Queensland University of Technology
Detection of gonorrhoeae in prostate cancer tissues

POSTER PRESENTATIONS

92 **Joanna Kapeleris**
Institute of Health and Biomedical Innovation, Queensland University of Technology
Ex-vivo culture of airway cancer derived circulating tumour cells for precision medicine

93 **Andrew Jiang**
Faculty of Medicine, University of Queensland
Upscheduling decreases codeine-related presentations to a clinical toxicology unit

94 **Adil Malik**
Institute of Health and Biomedical Innovation, Queensland University of Technology
The long and short of GWAS Associated long non coding RNA

95 **Urmita Jhaveri**
Logan Hospital
Sodium-Glucose Cotransporter-2 Inhibitors and Euglycaemic Diabetic Ketoacidosis in the Perioperative Period: Case Report

96 **Shubhra Chandra**
Australian Prostate Cancer Research Centre - Queensland, Queensland University of Technology
Delineating the role of Hepatocyte Nuclear Factor 1 Beta (HNF1B) in prostate cancer

97 **Selena Le Bagge**
Mater Research Institute, University of Queensland
Advanced Glycation End Products as Predictors of Renal Function in Young People with Type1 Diabetes

98 **Farhad Dehkhoda**
UQ Diamantina Institute, University of Queensland
Mechanism of GP130 activation and regulation of its downstream signalling

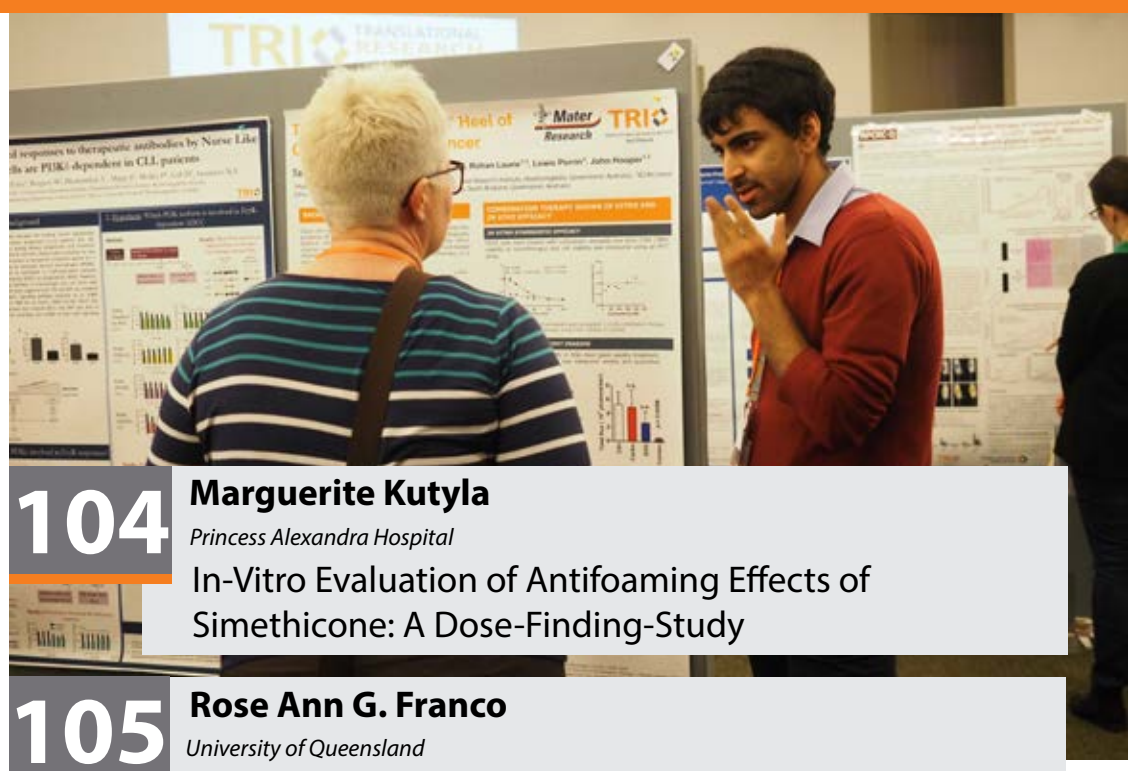
99 **Moustafa Sherif**
UQ Diamantina Institute, University of Queensland
Genetically engineered monocytes: a new strategy to improve the outcome of immunotherapies in metastatic breast cancer

100 **Tania Duarte**
Institute for Molecular Bioscience, University of Queensland
Deep Sequencing of Microbial Communities in Cystic Fibrosis Airways

101 **A K M Mahmudul Haque**
Australian Prostate Cancer Research Centre - Queensland, Queensland University of Technology
Targeting adaptive response in advance prostate cancer with combined anti-androgen and biguanide treatment

102 **Serena Ekman**
Centre for Biopharmaceutical Innovation, University of Queensland
In Silico Model For Extracellular Glycophorin A (GPA) Structure

103 **Chamikara Liyanage**
Australian Prostate Cancer Research Centre - Queensland, Queensland University of Technology
Identification and characterization of micropeptides involved in adaptive response to androgen deprivation therapy



104 **Marguerite Kutyla**
Princess Alexandra Hospital
In-Vitro Evaluation of Antifoaming Effects of Simethicone: A Dose-Finding-Study

105 **Rose Ann G. Franco**
University of Queensland
Guided In Vitro Chondrogenesis of Bone Marrow-derived Stromal Cells using small molecules

106 **Lena Oestreich**
UQ Centre for Clinical Research, Brisbane, Australia, Centre for Advanced Imaging, UQ, Brisbane, Australia, Royal Brisbane and Women's Hospital
Neuroimaging biomarkers for early detection of post-stroke depression

107 **Sepideh Jahandideh**
Griffith University
The Impact of Socio-environmental Factors on the Process of Engagement in Cardiac Rehabilitation Programs

108 **Simon Thomas**
Institute for Molecular Bioscience, University of Queensland, MyLab Pty Ltd.
Interpretable machine learning methods for the characterisation and classification of skin cancer

109 **Ryan J. Hall**
Institute for Molecular Bioscience, University of Queensland
Studying the structures of proteins that control cellular transport using X-ray crystallography

110 **Raji Baidya**
Institute for Molecular Bioscience, University of Queensland
TRIF- RIPK3-MLKL mediated necroptosis contributes to ischaemia induced cell death in steatotic hepatocytes

111 **Weidong Gao**
Institute of Health and Biomedical Innovation, Queensland University of Technology
The enhancement of therapeutic protein-drug production by 3D printed carrier in bioreactor culture system

112 **Colin (Qiang) Cheng**
StickyCell Pty Ltd
A novel companion blood test to personalize Natalizumab treatment regime

113 **Mitchell Robinson**
UQ Diamantina Institute, University of Queensland
The use of reflectance confocal microscopy in clinical practice to diagnose basal cell carcinomas: A cost benefit analysis"

POSTER PRESENTATIONS

114 **Jackie Creagh**
Immunity, Infection and Inflammation Program, Mater Research Institute
The Yin-Yang model of IL-23p19/IL-23Δ9: A potential therapeutic target for Inflammatory Bowel Disease

115 **Erin Kelly**
Princess Alexandra Hospital
Improving services for patients with Disorders of Consciousness (DOC): Implementation of family and staff education packages in a Neurosciences Unit

116 **Md Saiful Islam Roney**
Immunity, Infection and Inflammation Program, Mater Research Institute
Novel autoantibody profiling in the discovery of colorectal cancer biomarkers

117 **Rainbow Lai**
Princess Alexandra Hospital
A Stroke Nutrition and Hydration Pathway Enhances Enteral Nutrition Outcomes

118 **Md. Moniruzzaman**
Faculty of Medicine, University of Queensland, Brisbane
Divergent roles of interleukin-20 family cytokines in controlling intestinal inflammation

119 **Emma Morton**
Faculty of Medicine, University of Queensland, Brisbane
Outcomes for Patients Presenting to the Princess Alexandra Hospital (PAH) Emergency Department (ED) Following Out of Hospital Cardiac Arrest (OHCA).

120 **James Dight**
UQ Diamantina Institute, The University of Queensland
Endovascular progenitors initiate and drive de novo vascularisation in melanoma

121 **Aihua (Nicole) Wu**
Faculty of Medicine, University of Queensland
Effects of acute Na+ loading on NCC abundance and phosphorylation in urinary exosomes from hypertensives with a raised aldosterone to renin ratio (ARR)

122 **Mandy Nielsen**
ABI TRS, Division Of Rehabilitaiton, Princess Alexandra Hospital
Early Action Appraised: Stakeholders' perspectives on early pilot ABI transitional rehabilitation

123 **Bing Sun**
Australian Institute of Bioengineering and Nanotechnology, University of Queensland
Development of Nanoparticle Platforms for Targeted Delivery and Immune Enhancement of Nucleic Acid Vaccines

124 **Amelia Katherine Fotheringham**
Glycation and Diabetes Complications Group, University of Queensland
Using the geometric framework for nutrition to understand the influence of macronutrient intake on the kidney

125 **Amy Johnston**
Dept Emergency Medicine, Princess Alexandra Hospital And School Of Nursing,
Better simulation by design: A best-practice in simulation framework

126 **Nicola Bray**
Metro South Addiction And Mental Health
Functional gastrointestinal disorders (FGIDS) patients benefit from a 12-week multidisciplinary integrated treatment approach to reduce anxiety and depressive symptoms

127 **Yuao Wu**
Princess Alexandra Hospital
Novel nanotechnology approach for diagnosis and treatment of cardiovascular disease

128 **Shayna Sharma**
Exosome Biology Laboratory, University of Queensland Centre for Clinical Research
Utilisation of Exosomal miRNAs and Proteins for Identification of Early Stage Epithelial Ovarian Cancer

129 **Sharene Chong**
Princess Alexandra Hospital
Melanoma patient survival: Prognostic value of pSTAT5 as a biomarker

130 **Mitchell Robinson**
The Princess Alexandra Hospital
Reflectance Confocal Microscopy: Non-invasive diagnosis of skin cancer at the Princess Alexandra Hospital

131 **Khawla Jaber**
Queen Elizabeth II Jubilee Hospital
Introducing flashing lights in laser theatre

132 **Huynh Nguyen**
Queensland Tissue Bank
Low Dose of Gamma Irradiation Does Not Affect Mechanical Properties of Tendon Allograft

POSTER PRESENTATIONS

133 **Sumia Essid**

University of Queensland

Proinsulin C-Peptide Enhances Cell Survival and Protects against Simvastatin-Induced Myotoxicity in L6 Rat Myoblasts

134 **Urmita Jhaveri**

Logan Hospital

Integration of contemporary CT Coronary Angiography in care of patients suspected to have Takotsubo Cardiomyopathy

135 **Xuan Huang**

Institute of Health and Biomedical Innovation, Queensland University of Technology

Syndecan expression levels in high vs low mammographically dense human breast tissue

136 **Michelle Edmonds**

Princess Alexandra Hospital

The phosphate debate: intravenous vs Oral

137 **Ritu Shrestha**

Liver Cancer Unit, Gallipoli Medical Research Institute, Greenslopes Private Hospital

TNF-α promotes epithelial-to-mesenchymal transition and expression of immune checkpoint molecules in hepatocellular carcinoma

138 **Ashley Meakin**

Mater Medical Research Institute, University of Queensland

Altered placental androgen signalling contributes to growth restricted outcomes

139 **Zachariah Schuurs**

Institute of Health and Biomedical Innovation, Queensland University of Technology

Elucidating functional relationships through electrostatic characterisation of proteins with an oligosaccharide/ oligonucleotide

140 **Cameron Haigh**

Queensland Health

Musical Attention Control Training in adult mental health rehabilitation

141 **M. Madusha Nuwanthi Perera**

Institute of Health and Biomedical Innovation, Queensland University of Technology

Antimicrobial effects of an Australian native plant against common wound-colonising bacteria

142 **Ying Zhou**

Pharmacy Australia Centre of Excellence, University of Queensland

LPA receptor mediated TGFBR1 transactivation stimulates the expression of GAG synthesizing genes

143 **Amy Johnston**

Department Emergency Medicine, Pah And School Of Nursing, University Of Queensland

Evidence of the effectiveness of multidisciplinary simulation training in disaster management; a case study

144 **Abirami Ratnasingham**

University of Queensland

Infant body composition predicts childhood obesity

POSTER PRESENTATIONS

145 **Jilai Zhao**
UQ Diamantina Institute, University of Queensland
EndoVascular Progenitor function in atherosclerosis

146 **Eamonn McKenna**
Institute of Health and Biomedical Innovation, Queensland University of Technology
Integration of an ultra-strong biodegradable knitted mesh into a biodegradable porous structure for dermal tissue engineering

147 **Johan Medina Benavente**
Department of Cytokine Receptor Signaling, University of Queensland - Diamantina Institute
H2-Bl/HLA-G as a regulator of the inflammatory process following partial hepatectomy

148 **Amy Johnston**
Dept Emergency Medicine, Pah And School Of Nursing
Making our EDs 'sharps safe'; Understanding staff attitudes and current use of sharp safety devices

149 **Aparna Arjunan**
Centre for Health Services Research, University of Queensland
Predicting adverse outcomes in geriatric rehabilitation

150 **Melanie Caruso**
Mater Research, University of Queensland
Analysis of the impact of Colony Stimulating Factor (CSF1) administration in adult rats using a novel Csf1r-mApple reporter gene

151 **Kaylyn Tousignant**
Australian Prostate Cancer Research Centre - Queensland, Queensland University of Technology
Extensive lipid remodelling fuelled by lipid uptake is an early mechanism of resistance to androgen receptor-targeted therapies in prostate cancer

152 **Sai Praneeth Narla**
UQ Diamantina Institute, University of Queensland
Effect of Human Rhinovirus on Immune checkpoint expression

153 **Saeid Alinezhad**
Princess Alexandra Hospital
Precision medicine in the management of men with early biochemically recurrent prostate cancer using a novel in vitro approach

154 **Ramez Barsoum**
Princess Alexandra Hospital (Metro South)
Surgical Outcomes in Hidradenitis Suppurativa: A Novel Multidisciplinary Approach

155 **Patricia Carreira**
Mater Research Institute- University of Queensland
Role of Jumping Genes in Carcinomas

156 **Estelle Jensen**
Princess Alexandra Hospital
Patient Flow at PAH Improved by Transit Care Hub Pharmacist

POSTER PRESENTATIONS

157 **Jessica Rankine**
Princess Alexandra Hospital
Rituximab- minimal dose for Minimal Change

158 **Mandy Nielsen**
Princess Alexandra Hospital
Interdisciplinary goal planning in early rehabilitation: Exploring three different techniques

159 **Nicola Warren**
Princess Alexandra Hospital
Challenges and solutions for the development of online, interactive psychiatric education

160 **Xiaoling Hu (Presented by Sal Lee Goh)**
University of Queensland Diamantina Institute
Increasing perfluorooctane sulfonate renal elimination using transporter inhibitors

161 **Ingrid Hickman (On behalf of Heidi Johnston)**
Princess Alexandra Hospital
The feasibility and acceptabiliy of sarcopenia assessments of liver transplant candidates

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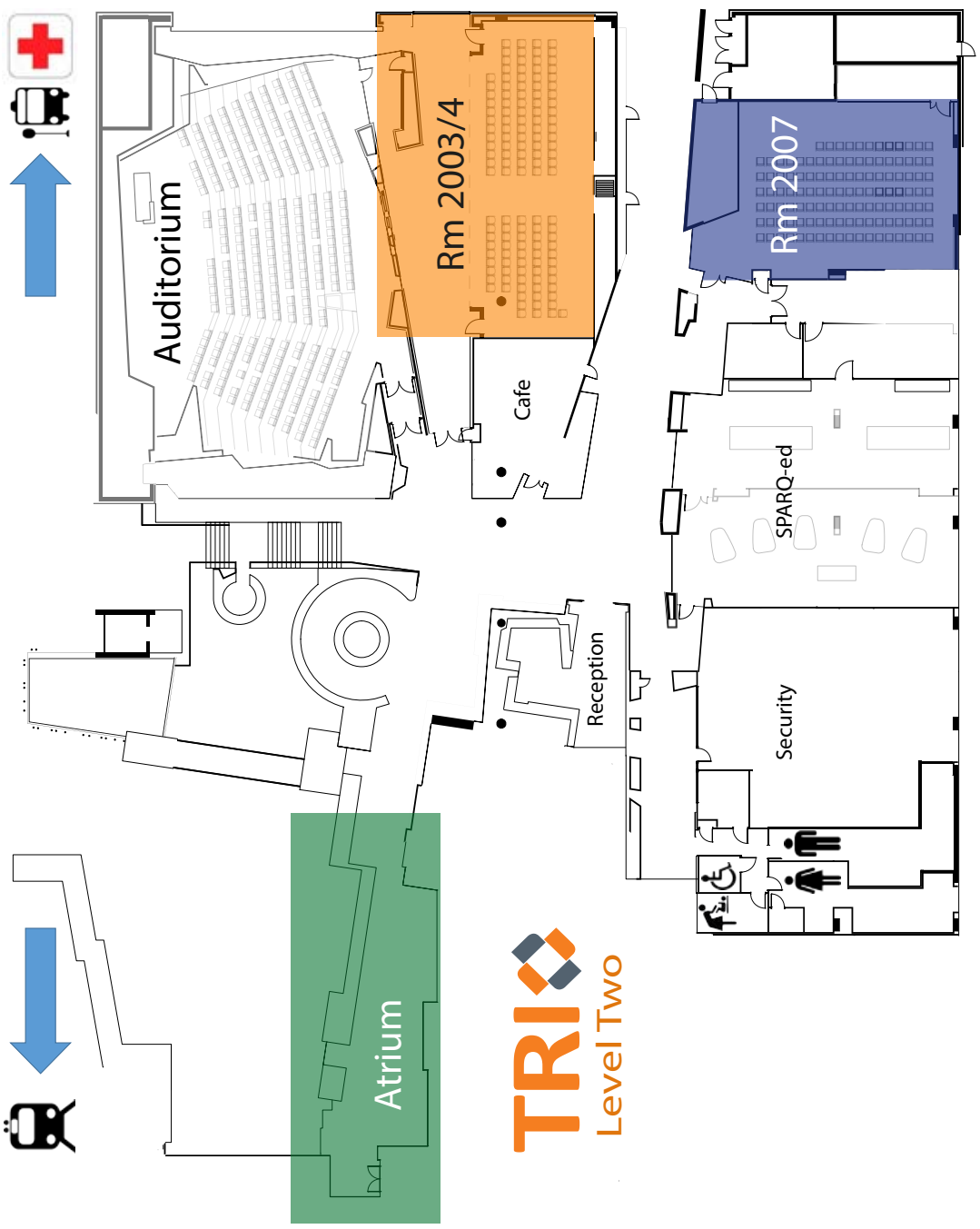
Partnerships in Science

EVENT MAP

Translational Research Symposium 2019

Talk Science to Me



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ABOUT THE EVENT: Science communication is always a great challenge for research scientists, we work diligently to find cures and solutions that directly benefit the general public. Media, the information outlet connecting scientists to the general public, often misinterpret science. Communication is a two-way process and it is essential that scientists translate science in a way to avoid misinterpretation. TRS 2019 aims to improve science communication and hence the participants will explain their work to 10-12 year olds and will be judged by them. Forty children were invited to be the judge of science for the TRS 2019 and they are from Indooroopilly State School.

Indooroopilly State School

To express our gratitude to these children we will provide them with a day working in a real PC2 lab. They will extract DNA from strawberry and run the extracted DNA in an electrophoresis gel.

ORAL PRESENTATIONS:	**AUDITORIUM**
POSTER PRESENTATIONS:	**ROOMS 2003/2004, 2007**
CATERING:	**ATRIUM**
COFFEE CART:	**ROOM 2003/2004**
REGISTRATION:	**OUTSIDE AUDITORIUM**
BATHROOMS:	**DOWN HALLWAY PAST RECEPTION/SECURITY**

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