

2022 LINC SHOWCASE

Clinical dilemma/research opportunities

Leading Innovations through
New Collaborations



Metro South
Health



Queensland
Government



Children's Health Queensland
Hospital and Health Service



Queensland
Government

Speaker & project details



Dr Camille Guillerey

ARC DECRA Fellow, Mater Research
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Project: *Understanding the multifaceted roles of NK cell populations in Cancer*

We are looking for clinical collaborators working on any cancer type. Clinical collaborator would help shaping the proposal to decide which stages, sample types and clinical correlates to focus on. Ideally, we would need access to an annotated biobank with samples that can be analysed by flow cytometry (blood, ascites fluids, bone marrow aspirates).



Dr Greg Keir

Respiratory Physician, Department of Respiratory & Sleep Medicine, Princess Alexandra Hospital
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Project: *Predictive Biomarkers in Connective Tissue Disease associated Interstitial Lung Disease*

We would like collaborators with expertise in performing ELISA immunoassays and direct chemiluminometric technology. Candidate biomarkers proposed for analysis in this study reflect various pathways considered to be important in CTD-ILD pathogenesis. These include markers of alveolar epithelial injury (including KL-6, SP-A, SP-D, MMP-7, CA19.9, CA125) markers of extracellular matrix remodelling (MMP-7, MMP-12) and markers of immune dysregulation. We propose to perform the first biomarker analysis when baseline, 6- and 12-month serum has been collected from study participants.



Dr Arutha Kulasinghe

Senior Research Fellow and Group Leader, UQ Diamantina Institute
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Project: *Understanding resistance to immunotherapy: a multiomic approach*

Identifying predictive biomarkers of response to immunotherapy remains a current unmet clinical need. We are looking for clinical collaborators to take part in clinical cohort studies, providing: retrospective tissue samples from patients that had response/resistance to immunotherapy, pathology annotations, and clinicopathological findings.



Prof Derek Richard

Scientific Director of the Cancer & Ageing Research Program, QUT
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Project: *Identifying mechanism and new therapies to treat anaemia of inflammation in Inflammatory Bowel Disease*

We seek to collaborate with research-orientated clinicians and allied health professionals who have an interest in addressing critical clinical problems in our ageing population. We are focused, as a group, on diseases caused by DNA damage and genetic mutations as mentioned previously. We are looking for clinicians who specialize in diseases, where age is a major risk factor and that are driven by genetic mutation, genetic instability or genetic stress factors.



Dr Taylan Gurgenci

Research Fellow, Mater
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Project: *Do either genetics or the severity of cancer-induced inflammation predict symptom response to medical cannabis in adults with advanced cancer?*

For our study, we are looking for research collaborators in two areas:

1. Inflammation:

- **Skills:** Ability to measure CRP, TNF-a, IL-1B, IFN- δ , IL2, NF- κ B.
- **Expertise:** Interpretation of cytokine measurement results.
- **Role:** To independently measure and interpret cytokine results, to assist in co-authoring papers based on the results.

2. Pharmacogenomics

- **Skills:** From patient blood samples, identify/characterise polymorphisms in selected candidate genes
- **Expertise:** Technical aspects of polymorphism identification.
- **Role:** To independently identify the presence/absence of polymorphisms in the above candidate genes, with the potential for other gene measurement based on a literature review, and assist in co-authoring academic papers based on these results.



Dr Anne-Sophie Bergot

Research Fellow, UQ Diamantina Institute
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Project: *Microbial sequencing in liquid biopsy for early diagnosis of spondyloarthropathies*

To initiate this project, I need to collaborate with a clinician(s) who has access to Psoriatic Arthritis patients at both early stage and advanced disease. I need access to skin biopsy, gut biopsy, joint biopsy and blood. Ideally, matched samples from the same patient are ideal, but these may be rare. Multiple, independent samples will still allow us to profile a map of "good" and "bad" bacteria associated with the disease for each organ. In addition, I am looking for collaborators to be involved with human ethics and governance applications, and genomic, metagenomic and statistical analysis.



Dr Debottam Sinha

Research Fellow, UQ Diamantina Institute
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Project: *Deciphering the functional role of MYC in driving resistance to therapies among HPV-driven malignancies*

I'm looking for in a clinical collaborator who has access to Human papillomavirus (HPV)-associated tumour patient biopsies. Additionally, case studies for these patients would be highly useful in helping us to understand the type of tumour resistance to the individualised therapies formulated for these patients.

Speaker & project details



Associate Professor Ross Francis

Department of Nephrology, Princess Alexandra Hospital
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Project: *Magnetic resonance spectroscopy to predict progression in chronic kidney disease patients*

We are seeking a range of collaborators:

- clinicians with experience in kidney disease
- experts in advanced imaging techniques and magnetic resonance (MR)
- scientists with expertise in Chronic kidney disease and kidney fibrosis.

This project will generate large and complex datasets and would also benefit from input from statisticians and/or researchers with experience in big data biostatistics and machine learning.



Dr Sugandha Bhatia

Post-doctoral Researcher, Duijf lab, QUT
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Project: *Targeting aneuploidies in cancers*

Our goal is to develop a new type of targeted cancer therapies, specifically targeting large genetic defects, or aneuploidies. Our next step is to test our treatment strategy on cancer cells and tissues directly derived from patients. We are looking for clinical collaborators, who have any of the following:

- Clinical expertise in cancer pathology or the treatment of cancer, preferably melanoma, breast, lung or ovarian cancer
- An understanding of pre-clinical research
- Interest in collaborative and translational research
- Ability to facilitate acquisition of patient-derived cancer cells or tissues for research purposes
- Experience in initiating a clinical trial



Dr Gishan Ratnayake

Radiation Oncologist, Princess Alexandra Hospital
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Project: *Development of Novel Radiation-Drug Combinations*

We are looking for collaborators with:

- The expertise and access to drugs that can enhance the effects of radiation therapy, either through radiosensitisation or immune modulation. E.g.: DNA damage repair inhibitors, immune checkpoint inhibitors, nanoparticles, antibody drug conjugates.
- The skills and ability to evaluate the efficacy of the drug-radiation combination with both in vitro work and in an appropriate animal model. Familiarity with radiobiology methods such as clonogenic survival assays, DNA damage assays, apoptosis assays would be favourable.

We will provide support in developing a clinically relevant experimental design and assist in planning and delivering the radiation using the new SARRP platform.



Dr Marcus Gray

Senior Fellow, Princess Alexandra Hospital and The University of Queensland
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Project: *Social Reward Learning in Schizophrenia: Computational modeling with Variational Bayes*

We are looking for the following in potential collaborators:

- Strong record in clinical psychiatry
- Active clinical program with regular patient contact, and regular recruitment of new psychiatric patients
- Demonstrated record of delivering clinical therapy (psychiatric intervention) in our patient group (people with Schizophrenia).
- A clinical research team with demonstrated real world experience in recruiting, psychometric testing, and interacting professionally with psychiatric patients.
- Researchers with expertise in computational neuropsychiatric methods – this involves the fitting of complex computational models to behaviour to identify sub-components in cognition and/or affective processing.
- Researchers with expertise in Variational Bayesian methods for neuroscience and computational psychiatry.



Chamikara Liyanage

PhD Candidate (with A/Prof Jyotsna Batra), QUT
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Project: *The long and short of long non-coding RNAs in ovarian cancer*

We are interested in collaborating with clinicians with expertise in ovarian cancer pathology, aiming to interpret and add value to our findings based on clinical concepts and therapy. We further seek for collaborators with access to well-annotated ovarian cancer clinical specimens and expertise in developing ovarian cancer pre-clinical models to investigate the biological role of micropeptides in tumour growth *in-vivo*.



Dr Carina Walpole

Research Officer, Mater Research
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Project: *Humanised mouse models, from research to clinic a solution to bridging the translational gap*

We are looking for collaborators who:

- Have established mouse model-like tumour models in immunocompromised mouse strains that could be adapted to a humanised mouse model system.
- Have in vitro tested immune based drug therapies that they would like to test in vivo in context of a functioning human immune system.

**LINC grant applications open 29 August
Get yours in soon!**