ANNUAL RESEARCH REPORT

2019

Research and Innovation within the Sunshine Coast Hospital and Health Service
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The 2019 Annual Research Report is our opportunity to recognise and celebrate the great work of Sunshine Coast Hospital and Health Service researchers and their many research partners and collaborators throughout the year.

As a health service we have a strong commitment to research and the benefits that it can bring to our patients and community. We operate in a demanding clinical and financial environment, yet our research activity and outcomes are impressive and as an organisation we continue to grow and develop strength in research every year.

Our focus in this report is on presenting the research work of our clinical departments and their research collaborators from a wide range of health service and academic institutions. However, we also recognise that there is a strong support element to our research which includes the work of the Research Governance and Development Unit, Clinical Trials Unit, Sunshine Coast Health Institute (SCHI) library and departmental research staff.

We thank and acknowledge the support of our Board and Executive, our Research Clinical Council and Research Operations Group. Each play a key role in supporting and guiding our research activity. Wishlist and the Study Education Research Trust Fund (SERTF) continue to provide much appreciated funding and support to local research and this report highlights the recipients of their joint 2019 research grants round.

We also recognise the important contribution made by our patients and community and thank them for their willingness to participate and support research.

We have included in this report an overview of our research strategy which will guide our efforts in the next 12 months. You will also notice the renewed emphasis on the SCHI partnership, membership and the research ‘clusters’ that will form the basis of our future collaboration. We have highlighted the work taking place in clinical trials and the leading role played by our researchers in fields such as data systems linkage. Our Annual Research Day, in October, was another opportunity to showcase research being conducted by health service staff with collaborating partners.

Planning for the inaugural Sunshine Coast Health Symposium in March 2020 was another focus for 2019 and was a true SCHI ‘joint effort’ with plenty of valuable support and involvement in the planning and program development. Although COVID-19 led to its postponement, plans are underway for a symposium in 2021.

Our future includes a renewed emphasis on supporting staff to continue to develop and embed a strong research culture across our clinical departments. With the move to a national Clinical Trials Governance Framework, we will be expanding roles of Clinical Research Monitor and Research Navigator to assist quality and development in research.

Our 2019 report shows that there is much to celebrate in our health service’s research and lots of valuable research being done. We recognise that there is still much to do and a long journey ahead.

Dr Brad McCall  
Research Clinical Council Chair  
Clinical Director Research  
Sunshine Coast Hospital and Health Service
# Research strategy interim update 2019

<table>
<thead>
<tr>
<th>STRATEGY</th>
<th>Support excellence in research</th>
<th>Developing a strong and sustainable research culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEME</td>
<td><em>Support and develop excellent research across disciplines within the health service</em></td>
<td><em>Develop a strong and vibrant research community culture to retain high performing researchers and attract more to the health service</em></td>
</tr>
<tr>
<td>OBJECTIVES</td>
<td>Build on our existing research strengths and recognise opportunities for alignment with national and regional health research focuses</td>
<td>Recruit and retain the best researchers at all career stages across clinical disciplines</td>
</tr>
<tr>
<td></td>
<td>Increase the quality and volume of research activity across the health service through the effective deployment of resources to support research growth and development</td>
<td>Grow the mentoring and interactions between researchers in a supportive and attractive environment including developing pathways for early career researchers</td>
</tr>
<tr>
<td></td>
<td>Provide guidance and training to all researchers to give them the skills to undertake robust research with the highest possible impacts and outcomes</td>
<td>Support staff in the development of large funding applications in our areas of strength and encourage research income generation through clinical trials</td>
</tr>
<tr>
<td></td>
<td>Ensure that all research staff, and those supporting them, have access to research education and skills training at the core of departmental culture</td>
<td>Support clinicians to develop a strong research and learning culture and recognise the role of research students in promoting research</td>
</tr>
<tr>
<td></td>
<td>Provide effective research governance and development support which prioritises the aims and ambitions of researchers and partners</td>
<td>Celebrate and encourage our local research achievements through regular research symposiums and research showcases</td>
</tr>
</tbody>
</table>

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### Increasing the translation of research into clinical practice

- **Develop a stronger framework where translation of the impact and outcomes from research are prioritised and communicated**
- **Seek to ensure that research has impact beyond academic recognition through the engagement of people within organisations to effect policy and practice**
- **Promote activities that communicate our research strengths, achievements and successes through greater engagement across the health service and with the wider public**
- **Support the scaling of research activities that are focused on delivering evidence-based approaches to improve healthcare delivery, service improvement and promote best practice through continuous learning**
- **Ensure our quality improvement activities clearly identify key deliverables and service outcome impacts and monitor their translation into practice**
- **Provide support for experienced, novice and emerging researchers to nominate translational research projects within their disciplines**

### Growing existing and building new partnerships

- **Build on existing strong partnerships with key institutions and facilitate the development of new partnerships**
- **Build strong links at the health service and researcher level with other researchers, academics, institutions and industry to nurture productive and sustainable partnerships**
- **Develop partnerships at regional, national and international levels that support our research ambitions and development of long-term sustainable relationships**
- **Build a strong and transparent framework for partnership engagement and the development and sharing of successful research programs**
- **Work closely with SCHI and our partner institutions to grow the health service’s visiting researcher program and encourage high quality applications from other leading institutions**
- **Increase the visibility of the health service as a quality research and partnering institution through our online presence and interactions with SCHI**
In 2019 there were 260 research projects with approval to be conducted in the health service.

These projects included clinical trials, investigator-led clinical research and all novice, early career and experienced researcher, local and collaborative studies, across our organisation.

Our oncology department (including haematology, medical and radiation oncology) had the greatest number of active projects at 36. Other highly active departments included intensive care, renal and stroke and geriatrics. See figure 1 adjacent.

In 2019 there were 59 new studies (figure 2) authorised by the governance team, of which eight specifically mentioned the research of one or more research higher degree students. A full list can be found in the ‘2019 Site-Specific Assessment (SSA) Approvals List’ later in this report.
New research projects in 2019

Our top five external research partners in 2019 (parties to collaborative research agreements) were local and inter-state academic institutions:

- University of the Sunshine Coast: 33
- The University of Queensland: 29
- Queensland University of Technology: 13
- Monash University: 11
- University of Sydney: 8

Research revenue from external sources received directly by the health service (excluding Department of Health funding), from Jan-Dec 2019 was $1.44 million. This reflected an increase in research grant funding (+11 per cent), other non-commercially funded collaborative research (+5 per cent) and commercially sponsored clinical trials (+14 per cent) for the same period in 2018. This result was the highest revenue recorded across recent years and one we hope to see continuing to grow in the future.
## New research project approvals in 2019

<table>
<thead>
<tr>
<th>SSA Approval Date</th>
<th>Project Title</th>
<th>Short Title</th>
<th>Investigators</th>
<th>Service Group Conducting Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>18/01/2019</td>
<td>A descriptive correlational study using virtual stimulation to examine the clinical decision-making of hospital nurses caring for older patients.</td>
<td>VSIM Nambour</td>
<td>External + Frederick Graham</td>
<td>Medical Services</td>
</tr>
<tr>
<td>26/02/2019</td>
<td>Assessment of health outcomes and pilot testing other assessment tools for children with fetal alcohol spectrum disorder.</td>
<td>Assessment of Health Outcomes</td>
<td>External + Karen Moritz</td>
<td>Women’s and Families</td>
</tr>
<tr>
<td>26/06/2019</td>
<td>The Leg Scan Study: Skeletal muscle as a potential marker of myocardial microvascular function in coronary artery disease with and without type II diabetes. [SERTF]</td>
<td>Leg Scan Study</td>
<td>Kim Greaves Tony Stanton Grace Young</td>
<td>Medical Services</td>
</tr>
<tr>
<td>8/08/2019</td>
<td>Citrate metabolism in critically ill patients receiving continuous renal replacement therapy using regional citrate anticoagulation: the CiMet Study.</td>
<td>CiMet Study</td>
<td>Chris Anstey</td>
<td>Surgical Services</td>
</tr>
<tr>
<td>8/08/2019</td>
<td>Evaluating iEMR’s effect on peri-operative prescribing errors.</td>
<td>iEMR Peri-Op Prescribing</td>
<td>Helen Flannery</td>
<td>Medical Services</td>
</tr>
<tr>
<td>28/08/2019</td>
<td>Quality of Life for Palliative Patients and their families. The role of Acceptance and Commitment therapy. [RHD]</td>
<td>Palliative Care and ACT Therapy</td>
<td>Chris Martin</td>
<td>Community Integrated and Sub Acute Services</td>
</tr>
<tr>
<td>30/09/2019</td>
<td>Models of care for airway clearance services in Australia for adults with chronic lung conditions: a descriptive survey.</td>
<td>Airway Clearance Service</td>
<td>Laura Cooper</td>
<td>Allied Health</td>
</tr>
<tr>
<td>4/12/2019</td>
<td>A pilot study of practice and outcomes of ESCHAPPM organisms at a tertiary care hospital.</td>
<td>ESCHAPPM Organisms Study</td>
<td>Emily Jackson Kathryn Wilks</td>
<td>Allied Health</td>
</tr>
</tbody>
</table>

### Other new research studies (51 Projects)

<table>
<thead>
<tr>
<th>SSA Approval Date</th>
<th>Project Title</th>
<th>Short Title</th>
<th>Investigators</th>
<th>Service Group Conducting Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>18/01/2019</td>
<td>A Phase 1/2, Randomised, Placebo-Controlled Study to Evaluate the Safety, Tolerability, Pharmacokinetics, and Antiviral Activity of VIR-2218.</td>
<td>VIR-2218</td>
<td>James O’Beirne Jonathon Mitchell</td>
<td>Medical Services</td>
</tr>
<tr>
<td>18/01/2019</td>
<td>Observational phase IV clinical registry of the use of perampanel for the treatment of focal and generalised epilepsy.</td>
<td>Observational Use of Perampanel</td>
<td>Benjamin Tsang</td>
<td>Medical Services</td>
</tr>
<tr>
<td>30/01/2019</td>
<td>DiAmOND / BCT 1703: An investigator-initiated, non-randomised, phase II study of combination TCLA-4 and PD-L1 blockade in combination with HER2 blockade in advanced HER2 positive breast cancers that have progressed on prior trastuzumab-based therapy. [ANZ Breast Cancer Trials Group]</td>
<td>DiAmOND</td>
<td>Michelle Morris</td>
<td>Medical Services</td>
</tr>
<tr>
<td>30/01/2019</td>
<td>The Impact of Ethnicity on RRT outcomes within Australia.</td>
<td>ERRT</td>
<td>Tahira Scott</td>
<td>Medical Services</td>
</tr>
<tr>
<td>Date</td>
<td>Title</td>
<td>Researcher/Team/Graduate</td>
<td>Department/Ministry</td>
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<td>22/02/19</td>
<td>A phase 3, randomised, double blind, active controlled study to compare the efficacy and safety of ridinilazole (200mg) for 10 days with vancomycin (125mg) for 10 days in the treatment of Clostridium difficile infection. [INC Research Australia]</td>
<td>RiCodify David Sowden</td>
<td>Medical Services</td>
<td></td>
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<tr>
<td>27/02/19</td>
<td>Effect of oral nicotinamide on non-melanoma skin cancer incidence and actinic keratoses in renal, hepatic, heart and lung transplant recipients: a randomised controlled trial.</td>
<td>ONTRANS Leith Banney</td>
<td>Medical Services</td>
<td></td>
</tr>
<tr>
<td>17/01/19</td>
<td>Gestational Diabetes screening in future pregnancies after a negative OGTT; a retrospective cohort study.</td>
<td>OGTT Rachel Nugent Anders Faber-Swensson</td>
<td>Women's and Families</td>
<td></td>
</tr>
<tr>
<td>22/05/19</td>
<td>Stopping haemorrhage with Tranexamic acid for hyperacute Onset Presentation including Mobile Stroke Units. [Collab FLORY Institute]</td>
<td>Stop MSU Rohan Grimley Arash Kahrom</td>
<td>Medical Services</td>
<td></td>
</tr>
<tr>
<td>4/04/19</td>
<td>An observational cross-sectional study exploring the provision of mid-meals to adult inpatients' receiving Self-Selected mid-meal service.</td>
<td>Self Select Meals External + Gal Moriz</td>
<td>Medical Services</td>
<td></td>
</tr>
<tr>
<td>14/03/19</td>
<td>Strength with Immersion Model (SwIM): Newly qualified midwives employed within Continuity of Care Models. [SERTF; OCNMO]</td>
<td>SWIM Lauren Kearney Lisa Davenport Deyna Hopkinson</td>
<td>Women's and Families</td>
<td></td>
</tr>
<tr>
<td>14/03/19</td>
<td>Does guideline-based dosing of beta lactam antibiotics and vancomycin achieve target drug concentrations more than therapeutic drug monitoring-based dosing in critically ill patients?</td>
<td>GUIDE Trial Paul Williams Gareth Beall Kathryn Wilks Chris Anstey</td>
<td>Medical Services</td>
<td></td>
</tr>
<tr>
<td>5/04/19</td>
<td>Child Health Nurses' perceptions of Family C.A.R.E.</td>
<td>Family Care David Grieve Troy Stapleton Gabrielle Savage</td>
<td>Women's and Families</td>
<td></td>
</tr>
<tr>
<td>5/04/19</td>
<td>The association of major injuries in trauma patients with CT diagnosed acute rib fractures.</td>
<td>Trauma patients with rib fractures David Grieve Troy Stapleton Gabrielle Savage</td>
<td>Surgical Services</td>
<td></td>
</tr>
<tr>
<td>14/03/19</td>
<td>Hepatology Partnership Project.</td>
<td>Hepatology Partnership James O’Beirne Kerrin Param Sarah Higgins</td>
<td>Medical Services</td>
<td></td>
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<tr>
<td>14/03/19</td>
<td>Nasal High Flow Therapy for Infants with Bronchiolitis—Translating new knowledge into practice.</td>
<td>Bronchiolitis KT Laxmi Camadodoo</td>
<td>Women's and Families</td>
<td></td>
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<tr>
<td>14/03/19</td>
<td>Nourish: Early Childhood Education-Phase One: engagement with Stakeholders.</td>
<td>Nourish: Early Childhood Education External</td>
<td>Women's and Families</td>
<td></td>
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<tr>
<td>22/03/19</td>
<td>extend-ia-tnk: Extending the time for Thrombolysis in Emergency Neurological Deficits - Intra-Arterial using intravenous Tenecteplase—a randomised controlled trial of tenecteplase versus alteplase before intra-arterial reperfections therapy within 4.5 hours of stroke onset. [FLORY Institute]</td>
<td>EXTEND-IA-TNK Rohan Grimley</td>
<td>Medical Services</td>
<td></td>
</tr>
<tr>
<td>24/06/19</td>
<td>Do patients over the age of 65 in an inpatient rehabilitation unit meet the recommendations on physical activity prior to admission? A cross-sectional study.</td>
<td>Minimum Exercise Guidelines Tim Buston</td>
<td>Medical Services</td>
<td></td>
</tr>
<tr>
<td>24/06/19</td>
<td>Point Prevalance Program.</td>
<td>PPP ANZICS Peter Garrett</td>
<td>Surgical Services</td>
<td></td>
</tr>
<tr>
<td>26/06/19</td>
<td>Pilot study to investigate the use of a smartphone based interactive blood glucose management system in women with gestational diabetes mellitus.</td>
<td>BGM in GDM Sophie Poulter</td>
<td>Medical Services</td>
<td></td>
</tr>
<tr>
<td>9/07/19</td>
<td>Early detection of infants at risk or with cerebral palsy: Queensland clinical network.</td>
<td>QEDIN-CP Lizzie Weber Rebecca Caesar</td>
<td>Women's and Families</td>
<td></td>
</tr>
<tr>
<td>9/07/19</td>
<td>Erector spinae nerve block for the management of rib fractures.</td>
<td>ES Nerve Block Leigh White Andrew Mitchell</td>
<td>Surgical Services</td>
<td></td>
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<tr>
<td>10/07/19</td>
<td>Hospital CEO perceptions about managing institutional racism.</td>
<td>Managing Racism External + Chris Bourke</td>
<td>Executive</td>
<td></td>
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<tr>
<td>Date</td>
<td>Title</td>
<td>Authors</td>
<td>Categories</td>
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<td>15/07/2019</td>
<td>A randomised phase 2 study of bortezomb, cyclophosphamide and dexamethasone induction (VCD) compared with VCD and daratumumab induction followed by daratumumab maintenance (VCDD) for the initial treatment of transplant ineligible patients with multiple myeloma. [AMARC]</td>
<td>Helen Weston</td>
<td>Medical Services</td>
<td></td>
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<tr>
<td>24/07/2019</td>
<td>Health-e Mind Participatory and personalised mhealth platform to encourage and support healthy living behaviours for people with mental illness. [CSIRO PHN]</td>
<td>Stuart Polkinghorne Lisa Gwillim Fiona Jarrett Melanie Cavanagh Rachael Usai</td>
<td>Mental Health</td>
<td></td>
</tr>
<tr>
<td>1/08/2019</td>
<td>Concurrent Carbogen and Nicotinamide with Radiotherapy in Muscle Invasive Bladder Cancer: A Report on Feasibility in the Australian setting.</td>
<td>Dharman Vignarajah Myo Min Nicole Buddle Marcel Knesl</td>
<td>Medical Services</td>
<td></td>
</tr>
<tr>
<td>6/08/2019</td>
<td>Sarcopenia and outcomes in Intensive Care.</td>
<td>Patrick Joyce Ryan O'Dempsey</td>
<td>Surgical Services</td>
<td></td>
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<tr>
<td>12/08/2019</td>
<td>Randomised prospective trial comparing contract force and non-contract force guided catheter ablation for cavotropicid dependent atrial flutter.</td>
<td>Matthew Tung</td>
<td>Medical Services</td>
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<tr>
<td>15/08/2019</td>
<td>Targeted Education Approach to Improve Peritoneal Dialysis Outcomes—Cluster Randomised Controlled Trial. [UQ]</td>
<td>Melissa Nataaymadja Rithika Krishnasamy</td>
<td>Medical Services</td>
<td></td>
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<tr>
<td>11/09/2019</td>
<td>A Phase III, multicentre, randomised, open-label trial to evaluate efficacy and safety of ribociclib with endocrine therapy as an adjuvant treatment in patients with hormone receptor-positive HER2-negative, early breast cancer. [Novartis]</td>
<td>Michelle Morris Jeremy Long Mary Acer Kathleen Houston</td>
<td>Medical Services</td>
<td></td>
</tr>
<tr>
<td>18/09/2019</td>
<td>Navigating an uncertain antimicrobial future: A sociological study.</td>
<td>Jennifer Broom</td>
<td>Medical Services</td>
<td></td>
</tr>
<tr>
<td>16/09/2019</td>
<td>Economic and health value of final year dental student placements in Queensland.</td>
<td>Kelly McGowan</td>
<td>Allied Health</td>
<td></td>
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<tr>
<td>13/09/2019</td>
<td>A cluster-randomised crossover trial of buffered salt solution versus 0.9% sodium chloride as fluid therapy for patients presenting with diabetic ketoacidosis.</td>
<td>Peter Garrett</td>
<td>Surgical Services</td>
<td></td>
</tr>
<tr>
<td>23/09/2019</td>
<td>Evaluation of systematic therapies used in cancer patients at selected Queensland Public Hospitals.</td>
<td>Julie Hasker</td>
<td>Medical Services</td>
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</tr>
<tr>
<td>30/09/2019</td>
<td>Health literacy, nutrition knowledge and wellbeing in caregivers of patients with chronic kidney disease.</td>
<td>Nick Gray</td>
<td>Medical Services</td>
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</tr>
<tr>
<td>7/10/2019</td>
<td>Listen Carefully: exploring best practice in implementing children’s and young people’s rights to be heard in healthcare: The Listen Carefully Project. [Starlight Children’s Foundation]</td>
<td>Graham Reeks Laxmi Camadoo</td>
<td>Women’s and Families</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Title</td>
<td>Authors</td>
<td>Department</td>
<td></td>
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<tr>
<td>7/10/2019</td>
<td>Pragmatic randomised trial of High Or Standard PHosphAte Targets in End-stage kidney disease—PHOSPHATE trial. [NHMRC]</td>
<td>Rathika Krishnasamy, Melissa Nataatmadja, Nick Gray, Evan Noble, Peter Hollett, Kumar Mahaderan, Jane Waugh</td>
<td>Medical Services</td>
<td></td>
</tr>
<tr>
<td>24/10/2019</td>
<td>Elacestrant Monotherapy vs Standard of Care for the Treatment of Patients with ER+/HER2- Advanced Breast Cancer Following CDK4/6 inhibitor Therapy: A Phase 3 Randomised, Open-Label, Active Controlled, Multicentre Trial (EMERALD).</td>
<td>Michelle Morris, Kathleen Houston, Mary Azer</td>
<td>Medical Services</td>
<td></td>
</tr>
<tr>
<td>5/11/2019</td>
<td>Statewide evaluation of the establishment of Primary Contact Hand Therapy Clinics for the management of patients with trigger finger.</td>
<td>Annette Heriot, Sarah King, Zoe Hutchinson, Judith Cameron, Georgina Lockwood, Samantha Robertson, Julie Bujold</td>
<td>Allied Health</td>
<td></td>
</tr>
<tr>
<td>29/11/2019</td>
<td>A Randomised, Multicentre, Phase 3 study of Nivolumab in Combination with Ipilimumab compared to Sorafenib or Lenvatinib as First Line Treatment in Participants with Advanced Hepatocellular Carcinoma: CA2099DW.</td>
<td>Paula Lister, Kayla Doyle</td>
<td>Surgical Services</td>
<td></td>
</tr>
<tr>
<td>20/12/2019</td>
<td>Paediatric Sepsis Breakthrough Collaborative: Improving Outcomes for Children with Sepsis in Queensland—an observational study to measure the quality improvement within the collaborative.</td>
<td>Anna Pietzsch, Rochelle Ryan</td>
<td>Surgical Services</td>
<td></td>
</tr>
<tr>
<td>6/12/2019</td>
<td>Health Professionals knowledge and attitudes on alcohol consumption during pregnancy and the Fetal Alcohol Spectrum Disorder.</td>
<td>Samantha Williams, Heidi Webster</td>
<td>Medical Services</td>
<td></td>
</tr>
<tr>
<td>9/12/2019</td>
<td>A retrospective, observational study of intra-operative hypotension in elderly patients in Queensland.</td>
<td>Anna Pietzsch, Rochelle Ryan</td>
<td>Surgical Services</td>
<td></td>
</tr>
<tr>
<td>16/12/2019</td>
<td>Nocardiosis in Queensland: Epidemiology, Microbiology, Treatment and Outcomes.</td>
<td>Keat Choong, Nadine Abov Eisha</td>
<td>Medical Services</td>
<td></td>
</tr>
<tr>
<td>17/12/2019</td>
<td>Laparoscopic appendectomy versus antibiotics for radiologically confirmed acute uncomplicated appendicitis: a multi-centre pilot trial.</td>
<td>Louise Waterhouse, David Grieve</td>
<td>Surgical Services</td>
<td></td>
</tr>
<tr>
<td>20/12/2019</td>
<td>A Phase 3, Multi arm, Multi stage, Covariate-Adjusted, Response-Adaptive Randomised Trial to Determine Optimal Early Mobility Training after Stroke (AVERT DOSE).</td>
<td>Ingrid Rosbergen, Rohan Grimley</td>
<td>Allied Health</td>
<td></td>
</tr>
<tr>
<td>26/12/2019</td>
<td>Penicillin allergy de-labelling at the front door—pharmacist-led implementation at Sunshine Coast University Hospital.</td>
<td>Kate Bennett, Kathryn Wilks, Patricia Kilfoyle, Sarah Kingscote, Sharon Young</td>
<td>Allied Health</td>
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</table>
The ATHENA Project seeks to address two major unmet needs of healthcare.

Principal investigator; Prof Kim Greaves Cardiology Unit. Affiliations: GU, UQ, ANU, USC.

1. Healthcare data linkage

Integrated care is emerging as a cornerstone for strategic planning for health services and population health research. The development of a means of information sharing between primary and secondary care providers is fundamental to achieving this goal.

The linkage of healthcare data between primary and secondary care is essential for effective healthcare delivery and provides the ‘right service for patients at the right time’. Such healthcare data linkage would:

- facilitate health service planning and improve the patient journey
- highlight areas of need or inequality within patient populations or across geographic regions
- allow targeted interventions
- enable health services to take pre-emptive actions (rather than reactive) such as preventing unnecessary hospitalisations and recurrent emergency department presentations
- monitor and detect barriers to uptake of best practice patterns of care by healthcare providers
- enrich population health knowledge.

2. Efficient patient identification for participation in clinical trials

The clinical trials market is projected to be $69 billion by 2026. Australia is ranked third globally behind the USA and UK for clinical trial density. The Department of Health (Commonwealth) has made it a priority to improve the quantity and quality of clinical trials in Australia.

Presently, the extended time and substantial expense incurred recruiting participants for clinical trials is significant (30 per cent of the total cost of a trial), and is becoming an ongoing barrier to the expansion of clinical trials in Australia by both researchers and pharmaceutical sponsors. A means by which we could have rapid access to suitable numbers of participants would allow clinical trials to flourish in Australia.

The unique position of Queensland Health

We are in a unique position nationally and globally to achieve both these goals. Queensland Health (QH) has recently implemented GP Smart Referrals (GPSR—a state-wide system that allows GPs to electronically refer patients to public hospitals) and the integrated electronic Medical Record (ieMR); therefore, the IT infrastructure is in place to allow state-wide data linkage between primary and secondary care. This is not available anywhere else in Australia, and in very few places internationally.

Proof-of-concept study

The ‘Primary and Secondary Care Data Linkage and Integration and Routine Dynamic Consent for Rapid Clinical Trials Access in a General Practice Population proof-of-concept project’ (short title: GP Data Linkage and ReDy Consent Project) was undertaken at the health service, funded by Queensland Health, Central Queensland, Wide Bay and Sunshine Coast Primary Health Network, and the
health service. The proof-of-concept project began in 2017 and was completed in June 2019.

**Proof-of-concept study outcomes (2019)**

- Eighty-one per cent of participants gave consent for the release of their identifiable health data from general practice, and linkage to secondary care data and storage within Queensland Health.
- Seventy-eight per cent gave consent for re-contact to discuss potential participation in health-related research.
- The project was able to safely and securely extract and transfer data from primary to secondary care, into a Queensland Health-Sunshine Coast Hospital and Health Service database.
- Successfully tested the recruitment utility of the database for clinical trial recruitment.

**Next Steps**

The next phase of the study involves a multi-faceted recruitment approach for participant recruitment including:

- development and utilisation of a Dynamic Consent Platform for participant recruitment from within both general practices and health service hospitals
- consent from participants attending either their GP or a health service facility to allow with consent, linkage of their identifiable primary health data with secondary care data, and additional permission for re-contact for potential participation in clinical trials
- engagement of an extended number of participant GP practices within the health service’s geographical area.

For more information watch Kim’s interview with Shanny Dyer from ARCS (Sept 19) on Youtube click here
Sunshine Coast Health Institute (SCHI)

Sunshine Coast Health Institute (SCHI) is a joint venture collaborative partnership between the health service, University of the Sunshine Coast (USC), TAFE Queensland (TAFE) and Griffith University (GU).

SCHI is a dedicated education, training, and research facility, contributing to the health service’s vision of ‘Health and wellbeing through exceptional care’. SCHI plays a vital role in training the next generation of staff, fostering innovation, and maintaining a culture of ongoing clinical audit, redesign, and clinical practice improvement to support excellence in the delivery of care. In 2020, SCHI will increase it’s offering to researchers through the delivery of a monthly researcher seminar series. Details of speakers and topics can be found on the SCHI website or through the Research Office (SC-Research-Support@health.qld.gov.au).

www.schealthinstitute.com.au

SCHI’s strategic goals are:

- Innovation and excellence in professional, inter-professional, and inter-sectoral education, training and workforce development.
- Excellence in health and educational research that addresses the challenges and opportunities of the region and beyond.
- Provide leadership in innovative models of evidence-based health care and population health.
- Invest in authentic stakeholder engagement.
**SCHI research facilities**

The state-of-the-art SCHI research spaces are flexible spaces available to members for health-related research activities. They include a suite of Physical Containment Level 2 (PC2) laboratories and a clinical trials office space.

**Laboratories**

Located on the first floor of the Lakeside Building, there are three research laboratories, accredited to PC2, intended for medium to long-term research projects. With dedicated tissue culture, cold storage and sample preparation space, the research laboratories have been designed and fitted out to meet the community’s current and future research needs. Necessary infrastructure and equipment are supplied by the institute and is centrally maintained. For all enquiries relating to the research laboratories at SCHI please email: SC-SCUH-SCHI-Research-Laboratory-Manager@health.qld.gov.au

**SCHI clusters of research excellence**

SCHI researchers have aligned into five clusters of research excellence, each led by a designated USC member:

- practice education in health
- infectious diseases and antimicrobial resistance
- healthy ageing: primary and secondary prevention
- maternal and child health
- optimising health service delivery and management.
Infectious Diseases and Antimicrobial Resistance

2019 Lead: Assoc Prof Erin Price

The Infectious Diseases and Antimicrobial Resistance cluster at SCHI is focused on biomedical research into all aspects of human infectious diseases. The cluster has several broad themes that represent our research strengths:

Better understand the presence, origin, and transmission of infectious diseases and their antimicrobial resistance
Enhancement of antimicrobial stewardship measures
Characterisation of chronic infectious diseases
Optimise pharmacodynamics for combating antimicrobial resistance infections.

Healthy Ageing; Primary and Secondary Prevention

2019 Lead: Dr Chris Askew

Healthy Ageing is the process of developing and maintaining the functional ability that enables well-being in older age. The vision of the SCHI Healthy Ageing Research Cluster is to enhance function and wellbeing through innovative research that leads to better detection, prevention, and management of chronic and age-related conditions.

We place a strong emphasis on multidisciplinary approaches that are solutions-focused and that advance all aspects of human function, namely biological function (including organ function), physical function, cognitive function, and social function.

Maternal and child health research is currently focused on two key areas:

• optimal peri-partum care
• the first 1000 days.

The primary aim being to improve health outcomes for newborn infants, young children and their families. Our translation objectives are:
This research theme recognises that quality education for clinical and non-clinical practice roles is the foundation for the provision of optimal health care for patients/clients/families and communities. Practice education in health research can shape health systems and is advanced by three enquiry sub-themes:

- interprofessional education and collaborative practice
- workforce and career development pathways
- education technology.

The vision of this research cluster is to improve the health of communities by undertaking good quality collaborative research that will inform the optimising of efficient health services, through:

- reviewing current key research activities, including staff capacities
- building research collaboration capacity
- enabling and enhancing research quality.

There are currently four key areas of collaborations identified:

- end of life shared decision making
- state-wide evaluation Geriatric Emergency Department Intervention (GEDI) program
- building and supporting a productive collaborative health research culture
- incorporating Telehealth to support healthcare deliveries.

1. the promotion of healthy pregnancy and normal birth
2. early identification of infants, children, and families with identifiable risk factors who receive timely, effective care to facilitate optimal outcomes.

*Lauren Kearney and Rachel Nugent are now leading this cluster in 2020.*
**SCHI membership**

In addition to the interactions and benefits that stem from being part of an active local research community, the key benefits for SCHI member researchers are access to SCHI facilities—including PC2 laboratories, clinical trials space and office areas and access to internal grant schemes.

Membership is granted through an application process which requires demonstration of an active research track record and engagement status with one of the four SCHI partner institutions. Further information about the application process is available by contacting SC-SCUH-SCHI-Research-Laboratory-Manager@health.qld.gov.au

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**Get to know some of our SCHI researchers**

**Professor Robert Harvey**  
*Chair in Pathophysiology and Discipline Lead, Biomedical Science School of Health and Science, University of the Sunshine Coast.*

Professor Robert Harvey specialises in cell biology, neuroscience and molecular genetics. His research career has focused on the biological roles of synaptic receptors, transporters, and accessory proteins in health and disease using animal and cellular models, genetics, next-generation DNA sequencing, and molecular modelling. His work on the biological and therapeutic roles of glycine receptors has revealed key roles for different receptor subtypes in movement disorders, cortical neuronal migration, inflammatory pain sensitisation, and rhythmic breathing. At SCHI, he aims to investigate the molecular pathology of defects in inhibitory and excitatory synapses in individuals with autism, intellectual disability and epilepsy (funded by the NHMRC). Prof Harvey aims to translate basic science discoveries into clinical applications, such as improved genetic diagnostics, patient care, and novel pharmacotherapies.

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**Associate Professor Erin Price**  
*Advance Queensland Senior Research Fellow, University of the Sunshine Coast*

Associate Professor Erin Price is a microbiologist, molecular geneticist and co-lead of the Pathogen-Omics lab team at USC. A/Prof Price is also the Infectious Diseases and Antimicrobial Resistance Cluster leader at SCHI. The Pathogen-Omics lab investigates the transmission, antibiotic resistance potential, prevalence, and evolution of microbial pathogens affecting humans, with a focus on pathogens associated with chronic respiratory diseases. A/Prof Price has a keen interest in applying microbial genomics and transcriptomics to better understand, diagnose, and treat infectious diseases. She has extensive experience using comparative genomics to develop inexpensive, sensitive, and accurate real-time PCR diagnostic assays to target important microbes and their antimicrobial resistance potential. Her current studies include using metagenomics and metatranscriptomics to characterise the airway microbiome of people with chronic obstructive pulmonary disease, with a view to improving the diagnosis and treatment of infections that drive disease, and identifying the causes of secondary bacterial/fungal pneumonia and immune dysregulation in COVID-19 patients (the CoViBac study) in collaboration with clinical partners at Sunshine Coast University Hospital. A/Prof Price has previously held post-doctoral research positions in Arizona and Darwin investigating the population biology, antimicrobial resistance, and evolution of high-threat bacterial pathogens.
Clinical trials

There were more than 60 commercially sponsored or collaborative group clinical trials forming part of the 260 research projects active across the health service in 2019. Our oncology department led the way with 25 of those trials benefiting our local cancer patients.

Why clinical trials are important

Participation in clinical trials by health service clinicians has benefits for our patients, researchers and the health service:

**Patient benefits** Our patients can benefit by being participants in the short term from the intervention being trialled, and in the long term, they and the entire community benefit from the knowledge they help to generate.

**Researcher benefits** Our participation in trials helps provide the level of evidence needed by researchers to reliably inform clinical practice and/or healthcare policy and makes a substantial contribution to global knowledge. Our clinicians and patients also provide valuable feedback and insights to researchers about the practicalities of clinical and other service provision experiences involved with a particular course of treatment.

**Health service benefits** Our health service benefits both from the direct cost avoidance of therapeutic products provided free by commercial sponsors, which can amount to thousands of dollars for a single participant depending on the trial intervention, and the enhanced status of the service in the local community through its ability to offer patients access to cutting edge therapies and interventions that could further optimise their care or provide treatment options when all conventional therapies have been exhausted.

Commercially sponsored clinical activity

Commercially sponsored trials are funded by the pharmaceutical companies that own the novel treatments or therapies that are being tested against our usual care options. In 2019, there were 25 approved commercially sponsored clinical trials that were active across the health service. Eight of these were newly authorised trials.

Commercial sponsors include well-known global industry names such as Bayer, Bristol Myers Squibb, Roche, Novartis, Janessen-Cilag (owned by Johnson and Johnson) and Pfizer in addition to a range of other research entities at the forefront of medical research.

### Table: Health Service Department vs. Commercially Sponsored Clinical Trial

<table>
<thead>
<tr>
<th>Health Service Department</th>
<th>Commerically Sponsored Clinical Trial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oncology</td>
<td>13</td>
</tr>
<tr>
<td>Renal</td>
<td>6</td>
</tr>
<tr>
<td>Cardiology</td>
<td>2</td>
</tr>
<tr>
<td>Hepatology</td>
<td>2</td>
</tr>
<tr>
<td>Allied Health</td>
<td>1</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>25</strong></td>
</tr>
</tbody>
</table>

The World Health Organisation’s definition of a clinical trial is ‘any research study that prospectively assigns human participants or groups of humans to one or more health-related interventions to evaluate the effects on health outcomes’.
Collaborative clinical trial activity

Collaborative clinical trial groups (also known as clinical trials networks) are formed by large communities of clinical researchers with a common interest in advancing the evidence base for a particular area of clinical practice. In 2019, health service clinicians were representing our health service and providing our patients with access to new treatments in 37 different collaborative clinical trials, including five trials through the ANZ Breast Cancer Trials Group and two each through the Australasian Gastro-Intestinal Trials Group and George Institute for Global Health. Other collaborative trial leads included Monash University, University of Sydney, The University of Queensland, Mater Research, the Trans-Tasman Radiation Oncology Group and the Australasian Leukaemia and Lymphoma Group.

<table>
<thead>
<tr>
<th>SCHHS Department</th>
<th>Collaborative Clinical Trial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oncology</td>
<td>12</td>
</tr>
<tr>
<td>Renal</td>
<td>4</td>
</tr>
<tr>
<td>Stroke/geriatrics</td>
<td>4</td>
</tr>
<tr>
<td>Intensive care</td>
<td>3</td>
</tr>
<tr>
<td>Surgical</td>
<td>3</td>
</tr>
<tr>
<td>Cardiology</td>
<td>2</td>
</tr>
<tr>
<td>Gastroenterology</td>
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</tr>
<tr>
<td>Hepatology</td>
<td>2</td>
</tr>
<tr>
<td>Dermatology</td>
<td>1</td>
</tr>
<tr>
<td>Endocrinology and diabetes</td>
<td>1</td>
</tr>
<tr>
<td>Neurology</td>
<td>1</td>
</tr>
<tr>
<td>Paediatric</td>
<td>1</td>
</tr>
<tr>
<td>Respiratory</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>37</td>
</tr>
</tbody>
</table>
Attracting clinical trials to the health service

Clinical trial sponsors (commercial or collaborative groups) select the health service to take part in their specific trial protocols based on our ability to provide the professional execution of rigorous trial protocols and effectively manage the additional workload associated with participant identification, screening, recruitment, treatment, monitoring and follow up in compliance with the extensive National standards and procedures governing the participation of humans in clinical trials. The support of our clinical trials pharmacist, the team in Medical Imaging and access to the great research facilities offered by the SCHI laboratory space allocated to the health service for use by our clinical research nurses to prepare participant samples all make our participation in clinical trials possible. We should be especially proud of our clinicians and their support teams (clinical research coordinators, nurses and administration support) for meeting the required performance and governance standards and being able to offer some of the latest advanced treatment options to our Sunshine Coast and Gympie population.

Celebrating our clinical trial principal investigators

Clinical trials would not be possible without the additional workload undertaken by our trial principal investigators and their support teams. Principal investigators take responsibility for the delivery of clinical trials at the health service and we wanted to take this opportunity on behalf of our patients, Sunshine Coast residents and the greater research community to thank them for all their efforts.

<table>
<thead>
<tr>
<th>Health service department</th>
<th>60 Trials</th>
<th>Commercial or collaborative clinical trial principal investigator</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oncology</td>
<td>25</td>
<td>Michelle Morris, Jeremy Long, Alessandra Francesconi, Marcel Knesl, Anthony Powell, Bryan Chan, Helen Weston, Kathleen Houston, Kathryn Jackson, Manjunath Narayana, Mary Azer</td>
<td>8</td>
</tr>
<tr>
<td>Renal</td>
<td>10</td>
<td>Nicholas Gray, Melissa Nataatmadja</td>
<td>9</td>
</tr>
<tr>
<td>Cardiology</td>
<td>4</td>
<td>Kim Greaves/Tony Stanton, Matthew Marrinan, Naresh Dayananda, Rohan Poulter</td>
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</tr>
<tr>
<td>Hepatology</td>
<td>4</td>
<td>James O’Beirne</td>
<td>4</td>
</tr>
<tr>
<td>Stroke/geriatrics</td>
<td>4</td>
<td>Rohan Grimley</td>
<td>4</td>
</tr>
<tr>
<td>Intensive care</td>
<td>2</td>
<td>Kate McCleary, Paul Williams, Vikram Masurkar</td>
<td>1</td>
</tr>
<tr>
<td>Surgical</td>
<td>2</td>
<td>Michael Donovan</td>
<td>3</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>2</td>
<td>Lauren White</td>
<td>2</td>
</tr>
<tr>
<td>Allied health</td>
<td>1</td>
<td>Ingrid Rosbergen</td>
<td>1</td>
</tr>
<tr>
<td>Dermatology</td>
<td>1</td>
<td>Leith Banney</td>
<td>1</td>
</tr>
<tr>
<td>Endocrinology and diabetes</td>
<td>1</td>
<td>Sophie Poulter</td>
<td>1</td>
</tr>
<tr>
<td>Infectious diseases</td>
<td>1</td>
<td>David Sowden</td>
<td>1</td>
</tr>
<tr>
<td>Neurology</td>
<td>1</td>
<td>Benjamin Tsang</td>
<td>1</td>
</tr>
<tr>
<td>Paediatric</td>
<td>1</td>
<td>Lizelle Weber</td>
<td>1</td>
</tr>
<tr>
<td>Respiratory</td>
<td>1</td>
<td>Michael Bint</td>
<td>1</td>
</tr>
</tbody>
</table>
Celebrating our clinical trial support resources

There are a number of dedicated clinical trials resources throughout our clinical service divisions. One such group is based within the Clinical Research Unit, located on level 2A at Sunshine Coast University Hospital opposite Dental Reception with access restricted to designated clinical research staff. The unit comprises of consultation rooms that have been laid out especially with clinical trial visits in mind. If required, Principal Investigators can use the space to make participants comfortable in their own room in preparation for their appointment with the trial clinician in a quiet, private area where they can have all their trial-related procedures completed.

The Clinical Research Unit is staffed by a group of experienced nurses and support staff who are skilled in clinical trials and are all trained in Good Clinical Practice (GCP), a required certification for all clinical trial researchers. The team are experienced in managing clinical trials across various medical disciplines and are available to provide advice and support to all new and existing researchers contemplating the participation of their patients in a clinical trial. Each trial is assigned a Lead Coordinator that works closely with the Principal Investigator to fulfil the requirements of the trial. The capabilities of the Clinical Research team include full management of the logistics of the clinical trial, liaison with external sponsors or collaborative network representatives, negotiation of contracts, budget completion, clinical care of participants, the booking of participant appointments and arranging parking reimbursement, trial-related document management and security, data entry, laboratory specimen handling and the hosting of site feasibility inspections, and all external monitoring and auditing visits.

Clinical trials are not restricted to Sunshine Coast University Hospital. Trials are also being managed at Caloundra Health Service, Gympie Hospital and Nambour General Hospital. If you are considering an offer to be the health service principal investigator for a trial that would be suitable for any of our sites, please talk to our Clinical Research Nurse Unit Manager, Helen Rodgers, about what support may be available for you and your department.

If you require Good Clinical Practice certification, contact the Clinical Research Unit for help in locating an appropriate training option.

The clinical research team is easily identified by their dark blue clinical research shirts and clinical research branding.

Participant clinical research rooms in 2A at Sunshine Coast University Hospital contain a bed/trolley, recliner, calibrated certified diagnostic equipment, ensuite bathroom and a networked desktop including a workstation on wheels and can be booked by contacting the Clinical Research Nurse Unit Manager on: 07 5202 3059.
Walk in my Shoes Program 2020

In 2020, the Clinical Research Unit will offer health service nursing staff the opportunity to experience a day in the life of a trials nurse via a professional development and learning program called “Walk in My Shoes”.

This program is designed to give nursing staff interested in branching out into supporting clinical research or clinical trials a taste of what is involved.

The program covers key stakeholders, ethics, governance, GCP certification and the role of the study coordinator. Sessions are conducted each month with up to two nurses at a time by the Clinical Research NUM. If you are interested in learning more about the program, please contact SC-Clinicaltrials@health.qld.gov.au
The annual Research Day was held on 7 November 2019 in the SCHI auditorium. A total of 159 staff and students from health service and SCHI partners attended the Research Day enjoying a diverse range of research topics across 34 presentations.

This year was highlighted with a discussion from panel members and the audience with the theme: “Our vision for research: Reaching for the SCHI”. The panel consisted of Professor Allan Cripps and Professor Nigel McMillan from Griffith University, Professor Vicki Sara, Chair SCHI Executive, Professor Rob Harvey, Professor Marion Gray and Professor Marianne Wallis from the University of the Sunshine Coast (USC), and health service experienced researchers Associate Professor Nicholas Gray and Associate Professor Jennifer Broom. The discussion was positive and demonstrated strong support from our SCHI partners towards research and researchers within our community. Researchers in the audience interacted with the panel and several important issues were raised for discussion including: The challenges of balancing the practicalities of research in practice, securing research time, budgets, and the need to drive innovation and generate new ideas.

The day consisted of a variety of presentations from our most experienced researchers, emerging researchers, novice researchers and junior doctor nominees for the Coverdale Anstey Young Investigator Prize (CAYIP). The lunchtime session highlighted a newly formed group, Research Higher Degree (RHD) student forum, who presented their thesis in three minutes. The RHD student forum aims to provide support, mentorship, collaboration and network opportunities for researchers in the health service and SCHI community. Researchers from USC also took part in three-minute thesis presentations on some of their current research projects.

The Sunshine Coast Health foundation, Wishlist Chief Executive Officer Lisa Rowe and Adjunct Professor Deborah Bailey, Acting Executive Director Medical Services and Chair of the Study Education Research Trust Fund (SERTF), demonstrated their ongoing support for research by presenting the 2019 Wishlist-SERTF Collaborative Research grants to 12 outstanding researchers (more detail can be found in our Wishlist report).

Dr Lorraine Ferguson AM, Sunshine Coast Hospital and Health Board Chair, presented the award for Best Oral presentation, which was sponsored by QSuper and BUPA and open to novice and emerging research presenters only. Congratulations to Nina Meloncelli, the winner of this award.
Nina presented in the emerging researcher session on, “How has changing the diagnostic criteria for gestational diabetes impacted perinatal outcomes in Queensland?” The Coverdale-Anstey Young Investigator Prize (CAYIP), sponsored by the Sunshine Coast Junior Doctors Society (SCJDS), was awarded to Dr Nathan Hearn on “Improving outcomes in locally advanced rectal cancer patients with intensified neoadjuvant radiotherapy”. Dr Hearn received this award at Grand Rounds on 11 November 2019 (for more detail see CAYIP report).

The Research Day evaluation survey (response rate 26 per cent) indicated that attendees considered the quality and variety of presentations to be of an excellent standard. Many respondents commented on a preference for sessions to be consolidated to avoid large breaks in the day and for more regular question opportunities. Positive feedback related to the benefits of understanding the SCHI research community, the services available and the research projects currently happening within the health service.

Overall, the 2019 Research Day was a key event showcasing the quality research activities being undertaken by our staff and SCHI partners. The event reflects our developing relationships with SCHI partners and demonstrates our combined commitment to building a strong research culture, sustainable research communities and ultimately obtaining better health outcomes for our community.
Supporting research: Wishlist and SERTF in 2019

Wishlist

In addition to the many activities as part of Wishlist’s $1 million commitment to Sunshine Coast health services, Wishlist specifically supports research by offering an annual research grant round open to all health service staff and their collaborators. Since 2009, $1.76 million has been directed by Wishlist to local research projects.

In 2019, we saw the first Wishlist-SERTF Collaborative Research Grant Round which resulted in $363,355 being directed to 13 health service projects, including experienced, early career and novice researcher support categories. The Wishlist team would like to make special mention of their Research Committee panellist Professor Emeritus Alan Mackay-Sim of Griffith University, and Committee Chair Dr Claudia Giurgiuman from Wesley Research Institute for the time dedicated to reviewing the 2019 applications.

In 2019 Wishlist engaged with corporate and community supporters to fundraise for research, something previously not attempted by the not-for-profit organisation, and with truly impressive results. Hundreds of locals invested in these grants and were excited about the potential outcomes of the new Wishlist Research Grant Round.

“As the local hospital foundation, it is our intention to grow our research investment in the future,” Wishlist Chief Executive Officer Lisa Rowe said.

“We strongly believe that it is our role to help foster and develop the research culture of the Sunshine Coast Hospital and Health Service, and we have invested significantly in doing so.”

The objectives of the Wishlist Research Grants are to enhance health outcomes by financially supporting research, encourage novice and early career researchers in developing a research career, support experienced researchers to become active leaders in research in their field, promote a positive research culture that translates into improvements in health care and promote innovative health care through identifying and implementing evidence-based practices and developing an ongoing culture of learning.

Other Wishlist funding opportunities:

Wishlist additionally offers Project and Equipment Funding to support capital projects, new and upgraded medical equipment, service development and support projects. Health service staff can also apply to Wishlist for staff scholarships offered quarterly for educational objectives. This includes relevant professional conferences, seminars and workshops and one academic round each for post and under-graduate studies.

For more information or to apply visit wishlist.org.au

Research within Wishlist Solace Centre:

Wishlist is embarking on a new era of research within the Wishlist Solace Centre due for completion by December 2022. The multi-million dollar project opposite the Sunshine Coast University Hospital will offer hospital accommodation, a health support hub and research component. Wishlist Solace Centre will underpin the vibrant and expanding health research community.

Thanks to a $12 million Australian Government Community Health and Hospital Program grant, work is to commence on the Wishlist Solace Centre in 2021.

SERTF

The Sunshine Coast Hospital and Health Service Study, Education, Research Trust Fund (SERTF) scheme is a long-standing initiative that exists to provide support for health service staff to engage in study, education and research for the purposes of professional development above and beyond mandatory and requisite training requirements, in alignment with the strategic priorities of the organisation.
The scheme is administered through the SERTF Committee which assess the applications and approve the allocation of funds. SERTF contributes to realising the health service’s strategic purpose: “Provide high quality health care in collaboration with our communities and partners, enhanced through education and research” and an organisational culture of learning driven by a commitment to a person-centred education and training model as per the health service’s Education and Training Strategy 2019-2023.

SERTF supports the development of knowledge through research, to contribute to regional, national and international improvements in evidence-based practice and the mentoring and education of the next generations of staff that fosters local research capability, as per the health service’s Research Strategic Plan 2016-2021.

The SERTF scheme aims to achieve the following objectives:

- To support individual study, enable education, and fund research, to deliver better health outcomes for the community.
- Contribute to balancing out access to professional development across streams within the organisation and maximising the amount of quality professional development in the health service especially for those who do not receive any dedicated financial allowance for this purpose;
- Invest in ‘our people’ by supporting employees to undertake study, education or research, inspiring a workplace where staff thrive and know they are valued, leading to an increase in staff and knowledge base retention.
- Grow research and education capability through contributing to an organisational culture of continuous learning and promoting sustainability in these areas.

Combined Wishlist/SERTF Research Project Funding

In 2019, for the first time, Wishlist and SERTF combined their research project application rounds and worked together to assess and approve the funding of suitable research projects from health service staff. The table on the following page gives a summary of the 2019 successful applicants, many of whom were available on Research Day to celebrate together the receipt of their funding. The combined Wishlist-SERTF research project funding round will continue in 2020.

2019 Wishlist/SERTF research grant recipients with Lisa Rowe, Clinical Lead and Adjunct Professor Deborah Bailey, Acting Executive Director Medical Services.
## 2019 Wishlist-SERTF Grant Recipients:

<table>
<thead>
<tr>
<th>Applicant/Department</th>
<th>Project title</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experienced</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A/Prof Nicholas Gray Renal</td>
<td>Social justice and antimicrobial resistance: A sociological study of vulnerability</td>
<td>$50,000</td>
</tr>
<tr>
<td>Dr Rohan Grimley Stroke</td>
<td>An epidemiological study of emergency department presentation for falls by older people in a regional hospital</td>
<td>$12,597</td>
</tr>
<tr>
<td>Dr Paula Lister Paediatric Critical Care</td>
<td>Early Resuscitation in Paediatric Sepsis Using Inotropes and Metabolic Support — a randomised controlled pilot study Platform.</td>
<td>$44,075</td>
</tr>
<tr>
<td>Dr Paula Lister Paediatric Critical Care</td>
<td>PIMS Study: An investigation of the utility of MICROSAMPLING VERSUS TRADITIONAL BLOOD SAMPLING FOR ANTIBIOTIC PHARMACOKINETICS in Children</td>
<td>$39,824</td>
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<tr>
<td>Prof Tony Stanton Cardiology</td>
<td>Coronary Artery calcium score: Use to Guide management of Hereditary Coronary Artery Disease – (CAUGHT-CAD)</td>
<td>$47,900</td>
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<tr>
<td><strong>Early Career</strong></td>
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<td></td>
</tr>
<tr>
<td>Dr Timothy Baird Respiratory</td>
<td>Using metagenomics to improve diagnosis of chronic obstructive pulmonary disease (COPD) pulmonary infections</td>
<td>$20,000</td>
</tr>
<tr>
<td>Dr Michelle Davison Emergency Medicine</td>
<td>BUCKLED: Bedside Ultrasound Conducted in Kids with distal upper Limb fractures in the Emergency Department. A randomised controlled trial.</td>
<td>$19,992</td>
</tr>
<tr>
<td>Dr Jessica Hambly Pharmacy</td>
<td>Therapeutic Drug Monitoring of 24-hour beta-lactam antimicrobial infusions in elastomeric pump devices</td>
<td>$20,000</td>
</tr>
<tr>
<td>Dr Lauren Kearney Womens and Family</td>
<td>Promoting and facilitating spontaneous vaginal birth in nulliparous women at full term: systematic review, predictive cohort study and development of an evidence-based bundle of care.</td>
<td>$49,881</td>
</tr>
<tr>
<td>Dr Ingrid Rosbergen Stroke</td>
<td>The efficacy of home-based telerehabilitation compared with centre-based community rehabilitation on time spent physically active in people with stroke: a pilot randomised controlled trial</td>
<td>$19,538</td>
</tr>
<tr>
<td>Dr Clare Thomas Paediatrics</td>
<td>Paediatric education and assessment for non-urgent transfers (PEANUT): Evaluation of the PEANUT project</td>
<td>$19,724</td>
</tr>
<tr>
<td><strong>Early Career</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ms Amber Jenkins Maternity</td>
<td>Mindfulness-Based Group interventions for mental health concerns in the antenatal period: A mixed methods study</td>
<td>$9,823</td>
</tr>
<tr>
<td>Dr Rochelle Ryan Anaesthetics</td>
<td>Does cefazolin and metronidazole prophylaxis during elective colorectal surgery achieve therapeutic concentrations in plasma and adipose tissue?</td>
<td>$10,000</td>
</tr>
</tbody>
</table>
Coverdale-Anstey Young Investigator Prize

In 2019, the Sunshine Coast Junior Doctor Society (SCJDS) was excited to offer the third annual Coverdale-Anstey Young Investigator Prize to Dr Nathan Hearn. This award is the only annual award available to support novice researchers within the health service and is a way to recognise the critical role of research in the training and development of junior medical officers.

As part of the 2019 Research Day, Dr Hearn presented his research on improving outcomes in locally advanced rectal cancer patients with intensified neoadjuvant radiotherapy. This work included a systematic review and meta-analysis, which informed the development of a prospective study protocol. Alongside working in radiation oncology at Sunshine Coast University Hospital, Dr Hearn is currently completing his PhD at the Thompson Institute (USC), evaluating novel applications of magnetic resonance imaging in radiation oncology. He has previously undertaken research of neurodegenerative conditions at the Queensland Brain Institute and CSIRO, and is more broadly interested in quantitative applications of medical imaging data to improve healthcare outcomes. The Coverdale-Anstey Young Investigator Prize money will go towards supporting his ongoing PhD work.

Dr Nathan Hearn with Dr Chris Anstey after receiving the 2019 Award.

The monetary prize of $1000 is open to all medical students, interns, junior doctors, registrars and fellows who are currently employed within the health service or are in a current clinical placement within the region. Please contact the SCJDS for information regarding the 2020 Coverdale-Anstey Young Investigator award round.
The Surgical Services Group has been proactive and generated significant research activity, demonstrating appreciable growth during 2019. Throughout this time, 70 studies were active, in follow-up, or undergoing preparation for site specific approval throughout the year.

The service group contributes to multiple state, national and international clinical registries, which in turn support local research and collaborative research. These registries include the:

- Bi-National Colorectal Cancer Audit (BCCA)
- Australia Spleen Registry
- Queensland Audit of Surgical Mortality (QASM)
- Australian Trauma Registry
- ANZTADC Anaesthetic Incident Reporting System (WebAIRS)
- Queensland Anaesthetic Benchmarking System – Obstetrics
- Electronic Persistent Pain Outcomes Collaboration (ePPOC)
- Australia and New Zealand Hip Fracture Registry (ANZHFR)
- Australian Orthopaedic Association National Joint Replacement Registry
- (AOANJRR) Patient Reported Outcomes (PROMs) Project
- ANZICS CORE data.

Some of the research activity that has been generated is included below.

Dr Guy Godsall developed the Queensland Anaesthetic Benchmarking System which continues to be implemented across Queensland. This is a data collection tool aiming to achieve clinical practice improvement by monitoring and measuring performance against agreed standards to identify process deficiencies and reduce clinical risk.

New collaborations were formed with academic partners, including between the Department of General Surgery and the University of Newcastle Colorectal Surgical Group; and the Department of Vascular Surgery and the James Cook University’s Queensland Research Centre for Peripheral Vascular Disease. Collaboration continues between the Department of Anaesthesia and Perioperative Medicine and the Centre of Research Excellence in Redefining Antimicrobial Use to Reduce Resistance, The University of Queensland.

Surgical Services Group engaged in research development and operations more broadly across the health service through representation at the:

- Research Committee
- Research Operations Group
- Research Governance Development Working Group
- General Surgery Junior Doctors Group
- Surgical Services Group Clinical Advisory Group
- Surgical Services Group Safe Care committee
- Research and Clinical Trials Nursing Group (ReaCT).

During 2019, Surgical Services researchers undertook collaborations with, or provided research activity support to other service groups and departments, including:

- Dermatology
- Endocrinology
- Infectious Diseases and Antimicrobial Stewardship
- Gastroenterology
- Hepatitis Services
- Gerontology
- Palliative care
- Patient Safety and Quality
- Radiology
- Women’s and Families Services.
2019 marks 10 consecutive years of the Department of General Surgery’s success for submission of abstracts to the Royal Australasian College of Surgeons (RACS) Annual Scientific Congress, this year held in Bangkok.

The Vascular Surgery team in 2019 (Jill O’Donnell, Rebecca Magee, Pankaj Jha and Daniel McGlade) forms part of the VasoActive research group, which brings together clinicians, academics and researchers in cardiac and vascular health from across the health service, SCHI, USC, and other external partners. Their work relies heavily on the contributions of university partners (A/Professor Chris Askew and A/Professor Fraser Russell) and postgraduate research students. Over the past year, there have been eight PhD students directly involved in studies across the areas of cardiac and vascular health.

Dr Rochelle Ryan presented her research findings in the Gilbert Brown Prize Session at the Australian and New Zealand College of Anaesthetists (ANZCA) Annual Scientific Meeting and was awarded a Wishlist and Study Education Research Trust Fund Collaborative Research Grant. Dr Anna Pietzsch presented at the ANZCA Combined Special Interest Group Meeting. Dr Nicola Beauchamp achieved the recruitment target for the multicentre ‘Perioperative Administration of Dexamethasone and Infection’ (PADDI) trial. Dr Alex Grosso published ‘Ultrasound-guided erector spinae plane block’ in Australasian Anaesthesia.

Four Surgical Services perioperative nurses successfully submitted abstracts and presented at the 2019 ACORN Queensland Biennial Conference in Townsville in May.

There was a significant increase in enquiries from nursing and allied health staff and junior medical officers interested in furthering their research skills and developing research proposals for academic coursework, with rewarding results.

There are four new or continuing PhD students across Surgical Services in 2019:

- Chris Anstey
- Rochelle Ryan
- Suzanne Ryan
- Paul Williams.

Dr Rochelle Ryan, Dr Chris Anstey and Paul Williams were pivotal in the development of the health service’s Research Higher Degree Student Committee which aims to support and encourage research students within our health service.
Cardiology

Research contact:
Prof Kim Greaves
kim.greaves@health.qld.gov.au

Active research staff
7

Publications
8

Conference presentations
N/A

External research funding involvement
$7m

Wishlist-SERTF research grants
$188k

Research interests

Stanton
Ongoing recruitment for two multi-site investigator led clinical trials:
1. CAUGHT-CAD—investigating the use of CT calcium scoring for CVS risk assessment.
2. SYNERGY II—investigating the use pre and post-biotics on myocardial function in chronic kidney disease.

Greaves
1. Dynamic Consent platform development for Queensland Heath: two communication between researchers and patients for consent.
2. ATHENA COVID-19: looking at the predictors of outcomes in patients who have had COVID19 in Queensland.
3. ATHENA: linkage of primary and secondary care data with registry data across Queensland.
4. Primary Prevention of Cardiovascular Disease.
5. Factors affecting myocardial blood flow.

Future research plans/interests

- Continue to complete current projects as listed above.
- Obtain funding for pilot study for ATHENA to test on Sunshine Coast region.
- Develop expertise, expand collaborations and increase profile in area of CVD prevention and population health including new surveillance systems, risk profiling, including calcium scoring and genomics.
- Support local investigators especially in their access to health service patients for research.

Research Higher Degree students

- Grace Young (PhD) with Chris Askew
- Kim Greaves (Masters)

Internal research grants

SERTF ($50,000): Primary and Secondary Care Data Linkage and Integration Project and the Routine Dynamic Consent for Rapid Clinical Trials Access Project; Kim Greaves

Wishlist ($47,900): Coronary Artery calcium score: Use to Guide management of Hereditary Coronary Artery Disease (CAUGHT-CAD); Tony Stanton

Wishlist ($50,000): Synergy II; Tony Stanton

SERTF ($40,000): Symbiotics: Erasing renal failure by improving gut microbiology II (Synergy II); Tony Stanton

Digital Innovation Hub ($150,000): Development of a Dynamic Consent Platform for Queensland Health; Kim Greaves

NHMRC APP1169888 ($449,368): Improving Communication about Heart disease risk Assessment using Translational research strategies in General Practice (CHAT-GP): A project to implement evidence-based guidelines and shared decision-making tools for CVD prevention; Kim Greaves

National Heart Foundation of Australia Vanguard Grant ($75,000): Making better use of a GP software system to prevent cardiovascular disease: evaluation of a potential surveillance system, and a pilot study to recall-and-treat high risk patients; Kim Greaves, Tony Stanton

Department of Health Commonwealth Government, Canberra ($2.4m) Cardiovascular Disease for Aboriginal and Torres Strait Islander people; Kim Greaves

Healthcare Improvement Unit, Dept of Health, Queensland ($0.5M): Primary and Secondary Care Data Linkage and Integration Project and the Routine Dynamic Consent for Rapid Clinical Trials Access Project; Kim Greaves

Primary Healthcare Network ($20,000): Primary and Secondary Care Data Linkage and Integration Project and the Routine Dynamic Consent for Rapid Clinical Trials Access Project; Kim Greaves

Princess Alexandra Research Foundation ($74,428); Tony Stanton
West Moreton Hospital and Health Service Grant (25,000); Tony Stanton

NHMRC 1080582 (2.65m); Tony Stanton

Research interests

Top research publications in 2019


2019 full publication list


Use of simulation to improve time to successful nasal intubation for anaesthetic registrars.

Prophylactic antibiotic concentrations in elective colorectal surgery.

Site for the Australian and New Zealand College of Anaesthetists Clinical Trials Network multicentre study: Perioperative Administration of Dexamethasone and Infection (PADDI) Trial.

Site for the Queensland Anaesthetic Registrars Research Collaborative iHype study.

Research Higher Degree students

- Rochelle Ryan (PhD)

Internal research grants

Wishlist/SERTF ($10,000): Does cefazolin and metronidazole prophylaxis during elective colorectal surgery achieve therapeutic concentrations in plasma and adipose tissue; Rochelle Ryan

Future research plans will focus on quality improvement research to improve the anaesthetic care given to our patients.

2019 full publication list

Articles


Conference Abstracts/Speaker Contributions

Pietzsch, A. Free Poster Session. Pregnancy and return to work for trainees. ANZCA Combined Special Interest Group Meeting, 2019.


Emergency Medicine

Research contact:
Dr Ogilvie Thom
SCHHSEDResearch@health.qld.gov.au

- geriatric emergency department care
- paediatric care in ED
- drowning—management of patients in ED
- geriatric transfusion
- mental health models of care in ED.

- Dr Ogilvie Thom (PhD)
- Dr Elizabeth Marsden (PhD)
- Andrea Taylor (PhD)
- Melanie Brown (PhD)
- Kym Roberts (Masters)

**External research grants**

- **Emergency Medicine Foundation ($96,676):** An evaluative study of a collaborative ED mental health program; Barrie Field
- **Emergency Medicine Foundation ($37,500):** Mixed methods study of the Geriatric Emergency Department Initiative (GEDI); Elizabeth Marsden
- **Emergency Medicine Foundation ($100,000):** Evaluation of the Geriatric Emergency Department Initiative implementation; Elizabeth Marsden
- **Emergency Medicine Foundation ($19,976):** Is there a link between clinical incidents and emergency nursing shift patterns?; Ogilvie Thom

**Internal research grants**

- **Wishlist/SERTF ($10,000):** Is there a link between clinical incidents and emergency nursing shift patterns?; Kym Roberts

**Future research plans/interests**

- The ED is developing several themes of research. Dr Marsden and team are continuing their successful investigation looking at Geriatric Emergency Department Care. The Paediatric Emergency Medicine team is starting to cement collaborative research links with state-wide and international (PREDICT) research networks. The groundwork has been laid for a large project looking at the care of the drowning patient, a surprisingly neglected research topic. Finally, smaller teams are investigating Geriatric transfusion requirements, challenging some accepted norms with their findings, and models of care for mental health patients in the ED.
- An ongoing priority in ED research is establishing an active research culture amongst nursing and allied health staff. To this end there are multiple nursing led publications listed in this report, and there are several completed projects with nursing led manuscripts in progress. Excitingly there are several more allied health and nursing led projects currently under development.


2019 full publication list

Articles


Conference Abstracts/Speaker Contributions
Thom O., K. Roberts, P. Leggat, S. Devine and R. Franklin. The role of non-invasive ventilation in reversal of hypoxia in drowning patients. Presented at World Conference on Drowning Prevention, Durban, Oct 2019
Research contact:
Assoc Prof Helmut Schaider
Helmut.Schaider@health.qld.gov.au

Collaboration with Dermatology Research Centre at The University of Queensland’s Diamantina Institute into naevus research and melanoma prevention.

3D body photography and dermoscopy for high risk melanoma patients.

Teledermatology.

Skin cancer.

Clinical trials.

Australian Cancer Research Foundation (ACRF) Grant ($10m)
$10 million grant to revolutionise the early detection of melanoma with the installation of 15 3D whole body imaging machines across Queensland, New South Wales and Victoria (1 at Sunshine Coast Hospital and Health Service).

ACRF Australian Centre of Excellence in Melanoma Imaging and Diagnosis – a collaboration between The University of Queensland, the University of Sydney and Monash University, together with state-based research and health system partners including the health service, The University of Queensland’s Diamantina Institute is leading this collaboration.

Complete ONTRANS (Effect of oral nicotinamide on non-melanoma skin cancer incidence and actinic keratoses in renal, hepatic, heart and lung transplant recipients) trial in 2020.

Complete teledermatology project with data to confirm non urgent dermatology cases can be seen as store and forward teledermatology, with the majority not needing face-to-face consultation.

Research protocol in progress for a trial comparing patient acceptability and efficacy of topical 5 fluorouracil combined with calcipotriol for actinic keratoses.
Articles


Conference Abstracts/Speaker Contributions


SCUH Exceptional People Award 2019 – “Bright Ideas and Research” Dr Alex Tedman for teledermatology
Research contact:
Dr Bree Stephensen
Bree.Stephensen@health.qld.gov.au

Research contact:
Dr David (Sandy) Grieve
Sandy.Grieve@health.qld.gov.au

SUNRISE Trial: trainee-led, international multicentre randomised controlled trial of single-use negative pressures dressings for the prevention of surgical site infection after emergency laparotomy.

COVIDSurg Study: international multicentre observational study of outcomes for patients with COVID-19 requiring surgery.

Optimisation of surgical waiting list management.

The effect of the COVID-19 pandemic on acute surgical admissions.

Mikaela Seymour (Masters)
Suzanne Ryan (PhD)

Medical Research Future Fund (MRFF) ($782,256):
Single Use Negative pRessure dressing for Reduction In Surgical site infection following Emergency laparotomy (SUNRISE) Trial (SCHHS is a participating site); Bree Stephensen

SERTF ($85,000): OpLIST Study; Ratna Aseervatham and David (Sandy) Grieve

DAMASCUS Study: international multicentre observational study of management and outcomes of acute diverticulitis.

Queensland CRC Audit: state-wide audit assessing regional variation in provision of services and outcomes in management of colorectal cancer across Queensland.

Stephensen B., F. Reid, S. Shaikh, R. Carroll, S.R. Smith and P. Pockney. The PREDICT Study: a prospective observational study to validate the utility of C-reactive protein trajectory as a predictor of anastomotic leak in patients with a bowel anastomosis. ANZ Journal of Surgery (IF 1.158) 2019; 89(S1): 56-87. Podium Presentation. (Additional authors from research collaborative from SCHHS: Copertino N, Grieve DA, Ryan S)

Articles


Conference Abstracts/Speaker Contributions
Seymour M. Non-specific abdominal pain: can patient requiring admission be predicted? Poster presentation for completion of MSC Surgical Services, March 2019, University of Edinburgh, Scotland.
Hepatology

Research contact:
Prof James O’Beirne
James.Obeirne@health.qld.gov.au

- non-alcoholic fatty liver disease
- viral hepatitis
- hepatocellular carcinoma.

NH&MRC MRFF ($974,000 – over 3 years): LOCal Assessment and Triage Evaluation of Non-Alcoholic Fatty Liver Disease (LoCATE-NAFLD); James O’Beirne

1. further development of clinical trial portfolio
2. NHMRC grant application for Vancomycin to treat primary sclerosing cholangitis (PSC)
3. NHMRC grant application to study cirrhosis care in disadvantaged Australians.

Top research publications in 2019

Top research publications in 2019 cont


2019 full publication list

Articles


Letters


Conference Abstracts/Speaker Contributions


Infectious diseases service

Research contact:

Dr Keat Choong
Keat.Choong@health.qld.gov.au

- social influences on antimicrobial use
- implementation science
- cultural change in healthcare institutions
- research translation
- diabetic foot infection
- HIV
- antimicrobial resistance.

Research Higher Degree students

- Sofia Etchechoury (Masters)
- Junel Padigos (PhD)

External research grants

Advance Queensland Senior Research Fellowship 2017-2020 ($600,000—including $300,000 administering organisation contribution - and additional $283,000 in-kind contributions from partner organisations. Total grant value $883,000): Novel antimicrobial stewardship innovations to preserve antibiotics for the future; Jennifer Broom

ARC linkage Grant 2018-2021 ($418,473—including partner contributions): Navigating an uncertain antimicrobial future: A sociological study; Jennifer Broom

Internal research grants

Wishlist/SERTF 2019 ($20,000): Stability of Beta-Lactam Antimicrobials During Home Intravenous Antimicrobial Therapy; Jessica Hambly, Keat Choong, Shradha Subedi


Future research plans/interests

1. Continued expansion on current research projects.
2. Translation of research findings into clinical interventions to optimise antimicrobial use will continue.
3. Research will continue to be prioritised across different levels of training and professional streams.
4. A prioritisation on research as a mechanism for health systems and infection management improvement will be continued.


Stewart, A., D. Sowden, M. Caffery, M. Bint and J. Broom, Rhodococcus equi infection: A diverse spectrum of disease. IDCases (IF 0.790), 2019. 15 600487 (Case Report).


Letters


Book Chapter/Therapeutic Guideline


Conference Abstracts/Speaker Contributions

Broom, J. Antimicrobial stewardship; incorporating social influence, clinical context and specialty-specific issues Third NSW Antimicrobial Stewardship Forum, Sydney June 2019


Intensive care services

Research contact:

Dr Peter Garrett  
Peter.Garrett@health.qld.gov.au

Dr Paula Lister  
Paula.Lister@health.qld.gov.au

Research Team  
SCICCR@health.qld.gov.au

• renal dialysis in acute kidney injury and regional citrate anticoagulation
• out of hospital cardiac arrests
• early mobilisation in ICU patients
• paediatric sepsis and outcomes
• critical care guideline based dosing of antibiotics in sepsis.

Research interests

Publications
11

Conference presentations
5

External research funding involvement
$45,956

Wishlist-SERTF research grants
$110,410

Research Higher Degree students

• Paul Williams (PhD)
• Dr Chris Anstey (PhD)

External research grants

Pathology Queensland ($25,956): Does guideline-based dosing of beta lactam antibiotics and vancomycin achieve target drug concentrations more than therapeutic drug monitoring-based dosing in critically ill patients? (GUIDE Trial); Paul Williams

Intensive Care Foundation Grant ($20,000): Plasma free cortisol and aldosterone concentration in critically ill patients with septic shock; John Moore

Internal research grants

Wishlist/SERTF ($44,075): Early Resuscitation in Paediatric Sepsis Using Inotropes and Metabolic Support—A Randomized Controlled Pilot Study Platform; Paula Lister

Wishlist/SERTF ($39,823): PIMS Study: An investigation of the utility of micro-sampling versus traditional blood sampling for antibiotic pharmacokinetics in Children; Paula Lister

Wishlist/SERTF ($19,512): Does guideline-based dosing of beta lactam antibiotics and vancomycin achieve target drug concentrations more than therapeutic drug monitoring-based dosing in critically ill patients? (GUIDE Trial); Paul Williams

Research Report 2019

48
Future research plans/interests

While being involved in collaborative multi-centre research and clinical trials add to our experience and encourage benchmarking with other Australian sites, we see the need now to encourage local projects. An additional focus for 2020 will be involving registrars and other colleagues in achievable investigations such as audits on our practice, case series and literature reviews. We hope to develop local investigator driven research from these, as well as explore links with the affiliation with Griffith University.

Our continued collaborative research themes will include:

- community acquired pneumonia
- renal dialysis and citrate anticoagulation
- out of hospital cardiac arrests
- antibiotic prescribing.

Top research publications in 2019


2019 full publication list

Articles


Sunshine Coast Hospital and Health Service
Medical oncology

Research contact:

Carrie Donohoe
Carrie.Donohoe@health.qld.gov.au

- immunotherapy in HER2 positive breast cancer
- elacestrant in metastatic breast cancer
- adjuvant ribociclib in breast cancer
- immunotherapy in small cell lung cancer
- panitumumab in metastatic colorectal cancer
- niraparib in metastatic prostate cancer
- liquid biopsies to profile metastatic colorectal cancer
- immunotherapy and denosumab in kidney cancer
- avelumab in metastatic urothelial cancer
- avelumab in advanced malignancies
- regorafenib in advanced gastro-oesophageal cancer
- adjuvant immunotherapy in non-small cell lung cancer
- clinical trials.

Top research publications in 2019


2019 full publication list

Articles

Conference Abstracts
Mental health and addiction services

Research contact:
MHAS Research Committee
SC-MHAS-Medicalworkforce@health.qld.gov.au

Current and future research interests
- sexual health and sexuality in people with major mental illness
- health-e-minds participatory and personalised mental health platforms to encourage and support healthy living behaviours for people with mental illness
- suicide prevention
- reflective practice evaluation
- metabolic abnormalities in mental illness.

External research grants

Emergency Medicine Foundation ($96,676): An evaluative study of a collaborative ED mental health program. Barrie Field, Annette Woodhouse and others.

Nurses and Midwives Innovation Fund, Queensland Health ($215,667): Maximising scope of practice Mental Health Nurse Practitioners addressing community clinical complexity and unmet customer need; Rob Leerentveld, Annette Woodhouse

Research Higher Degree students
- Fiona Jarrett (Masters)
- Elnike Brand (PhD)
- Adele Wallis (PhD)

External research funding involvement
$312,343

2019 full publication list

Article:

Conference Abstracts and Contributions:

Woodhouse, A. People, Passion and Process. A sharing of perspectives on integration in mental health nursing from current practice examples to future possibilities.’ Keynote Speaker, 45th International Mental Health Nursing Conference, Sydney, Oct 2019

Publications

1

Conferences presentions

2

Active research Staff

8

Wishlist-SERTF research grants

$-

Research Higher Degree students

Active research Staff: 8
Publications: 1
Conference presentations: 2
External research funding involvement: $312,343
Wishlist-SERTF research grants: $-

Current and future research interests

- sexual health and sexuality in people with major mental illness
- health-e-minds participatory and personalised mental health platforms to encourage and support healthy living behaviours for people with mental illness
- suicide prevention
- reflective practice evaluation
- metabolic abnormalities in mental illness.

External research grants

Emergency Medicine Foundation ($96,676): An evaluative study of a collaborative ED mental health program. Barrie Field, Annette Woodhouse and others.

Nurses and Midwives Innovation Fund, Queensland Health ($215,667): Maximising scope of practice Mental Health Nurse Practitioners addressing community clinical complexity and unmet customer need; Rob Leerentveld, Annette Woodhouse

Research Higher Degree students
- Fiona Jarrett (Masters)
- Elnike Brand (PhD)
- Adele Wallis (PhD)

External research funding involvement
$312,343

2019 full publication list

Article:

Conference Abstracts and Contributions:

Woodhouse, A. People, Passion and Process. A sharing of perspectives on integration in mental health nursing from current practice examples to future possibilities.’ Keynote Speaker, 45th International Mental Health Nursing Conference, Sydney, Oct 2019

2019 full publication list

Article:

Conference Abstracts and Contributions:

Woodhouse, A. People, Passion and Process. A sharing of perspectives on integration in mental health nursing from current practice examples to future possibilities.’ Keynote Speaker, 45th International Mental Health Nursing Conference, Sydney, Oct 2019
Neuroscience and geriatric research

Research contact:
Dr Ingrid Rosbergen
Ingrid.Rosbergen@health.qld.gov.au

Research contact:
Dr Rohan Grimley
Rohan.Grimley@health.qld.gov.au

• Neuroscience and Geriatric Research Collaboration—to build a strong research program within neuroscience department across acute, subacute and community with a focus to translate evidence-based knowledge into clinical practice, improve quality of care and health service delivery.

• Our researchers have advanced experience in data analytics, multidisciplinary care delivery and implementation science, physical activity, cognition and recovery from age–related diseases and impairments.

Research interests

External research grants

Health Practitioner Research Scheme ($155,080): The efficacy of telerehabilitation compared with centre-based community rehabilitation on time spent physically active in people with stroke: a pilot randomized controlled trial; Rosbergen I, Grimley R, Russell T, Brauer S, Tracey C, Greveling N, Endacott J, Comans T.

Internal research grants

Future Research Plans/Interests

- To grow a strong ‘Neuroscience and Geriatric Research Collaborative’ which results in growth of research activities across acute, subacute and community in close collaboration with stakeholders. The collaborative focus will include multidisciplinary care, activity, health service research, and rehabilitation and recovery from age related diseases and impairments.

- Samantha Robertson recently received a PhD scholarship valued at $180,000: She will investigate ‘The impact of a clinically-led innovation of the ieMR for stroke on integrated care, interprofessional practice and real-time data analytics.’ She will commence her PhD in the second half of 2020.

- Continue to contribute to large international, multi-site RCTs

- Initiate in 2020/2021 Co-design and RCT ‘Efficacy of telerehabilitation post stroke’

Top Research Publications in 2019


2019 Full Publication List cont.

Articles


Pharmacy

Research Contact:

Paul Williams
Paul.Williams@health.qld.gov.au

- Antimicrobial agents (PK/PD dosing in the critically ill, elastomeric devices, delabelling antibiotic allergies, sepsis collaborative, antimicrobial stewardship).
- Anticoagulation (fibrinolysis, Enoxaparin dosing and anti-Xa levels).
- Digital platforms (ieMR and automated medication supply).
- Colony stimulating factors to treat febrile neutropenia.

Publications

3

Conference presentations

5

External research funding involvement

$25,956

Wishlist-SERTF research grants

$78,500

Research interests

External research grants

Pathology Queensland ($25,956): Does guideline-based dosing of beta lactam antibiotics and vancomycin achieve target drug concentrations more than therapeutic drug monitoring-based dosing in critically ill patients? (GUIDE Trial); Paul Williams

Internal research grants

Wishlist/SERTF ($20,000): Elastomeric beta-lactam study; Jessica Hambly
Wishlist/SERTF ($39,823): PIMS Study: An investigation of the utility of micro-sampling versus traditional blood sampling for antibiotic pharmacokinetics in Children; Paula Lister, Kayla Doyle
Wishlist/SERTF ($19,512): Does guideline-based dosing of beta lactam antibiotics and vancomycin achieve target drug concentrations more than therapeutic drug monitoring-based dosing in critically ill patients? (GUIDE Trial); Paul Williams

Future research plans/interests

Continue with current interest areas and expand our pharmacy practice research (i.e. benefits of specialist telehealth services, partnered prescribing, deprescribing)

Research Higher Degree students

- Lilian Gauld (PhD)
- Paul Williams (PhD)
**Top research publications in 2019**


**2019 full publication list**

**Articles**


**Conference Abstracts/Speaker Contributions**

Davies A. Know your anticoagulant, Health Round Table Medication Safety Improvement Group, Brisbane, June 2019.


Practice development

Research contact:

Dr Lorraine Thompson
Lorraine.Thompson@health.qld.gov.au

Active research staff 1
Publications 1
Conference presentations 3
External research funding involvement $
Wishlist-SERTF research grants $

Research interests

• clinical coaching
• nursing education.

Research Higher Degree students

Nil

Top research publications in 2019


2019 full publication list

Articles

Conference Abstracts/Speaker Contributions
Radiation oncology

Research contact:
Dr Myo Min
Myo.Min@health.qld.gov.au

Active research staff: 9
Publications: 2
Conference presentations: 2
External research funding involvement: $659,386
Wishlist-SERTF research grants: $118,328

Research interests:
Functional imaging guided radiation therapy.

Research Higher Degree Students:
- Nathan Hearn (PhD) *Winner of 2019 Coverdale Anstey Young Investigator Prize
- Daisy Atwell (PhD)
- Katelyn Cahill (PhD)

External Research Grants:
New Technology Funding and Evaluation Program (NTFEP) Grant ($659,386): Grant for implementation of Radiation Therapy Planning MRI Simulator (Queensland First)

Internal Research Grants:
IQRE Research Grant ($118,328): Support resourcing of dedicated research radiation therapist

Top Research Publications in 2019:

2019 Full Publication List:
Conference Abstracts/Speaker Contributions
Renal

Research contact:
Adj Prof Rathika Krishnasamy
Rathika.Krishnasamy@health.qld.gov.au

• improving outcomes for dialysis patients
• calciphylaxis (calcium accumulation in small blood vessels) in renal disease
• reducing the burden of renal dialysis catheter complications.

Research Higher Degree students
• Dev Jegatheesan (PhD)
• Melissa Nataatmadja (PhD)
• Catherine McFarlane (PhD)
• Heidi Kickbusch (Honours)
• Katelyn Bowden (Honours)

Publications

19

Conference presentations

2

External research funding involvement

$6.6m

Wishlist-SERTF research grants

$65k

External research grants

Medical Research Future Fund ($2.2 million): Better Evidence and Translation for Calciphylaxis (BEAT-Calci); Rathika Krishnasamy
Health Research Council of New Zealand (SNZ 1.26 million): Serum phosphate to improve outcome for dialysis patients: The PHOSPHATE trial; Rathika Krishnasamy
NHMRC Project Grant 1170281($1.7 million): Pragmatic randomised trial of High or Standard Phosphate Targets in End-stage kidney disease: The PHOSPHATE trial; Rathika Krishnasamy
NHMRC Partnership Grant 1103241 ($1.2m): Reducing the burden of dialysis catheter complications: a National approach; Nicholas Gray
Queensland Advancing Clinical Research Fellowship ($300,000); Rathika Krishnasamy
Baxter Investigator Initiated Grant; REMOVAL-HD sub-study ($3000); Rathika Krishnasamy

Internal Research Grants

Wishlist/SERTF 2018 ($15,220): Patient-centred approaches to improving physical function in kidney disease; Rathika Krishnasamy.
Future research plans/interests

1. NHMRC grant submission: A randomised controlled trial to compare impact of arteriovenous fistula vs tunnelled dialysis catheter on hospitalisation in the elderly.
2. The effect of Theranova dialyser and magnesium on cardiovascular outcomes in haemodialysis.
4. Quality of life and burden among caregivers of people with end stage kidney disease managed on a non-dialysis pathway.
5. Global Kidney Patient Trials Network.

Top research publications in 2019


Articles


Conference Abstracts/Speaker Contributions


Book Chapter/Therapeutic Guideline

Respiratory and sleep medicine

Research contact:
Dr Michael Bint
Michael.Bint@health.qld.gov.au

Research contact:
Dr Timothy Baird
Timothy.Baird@health.qld.gov.au

Research interests

- lung cancer and genome sequencing
- pulmonary infection next-generation diagnostics, imaging and treatments
- management of malignant pleural effusion
- sleep-related hypoventilation
- detection, treatment and complications of embolism
- clinical trials.

External research grants

Advance Queensland Industry Research Fellowship ($300,000; 2019-2021): Next-generation diagnostics for chronic lung disease infections. Chief Investigator – A/Prof Erin Price (USC), Co-Investigators Michael Bint and Timothy Baird

Internal research grants

Wishlist/SERTF 2019-2021 ($20,000): Using metagenomics to improve diagnostics of chronic obstructive pulmonary disease (COPD) pulmonary infections; Timothy Baird

Future Research Plans/Interests

1. Lung Cancer 18-fluorodeoxyglucose (FDG) PET Study.
2. Lung Cancer Microbiome Study.
3. Next-generation diagnostics in pleural space infection.
4. Australian Bronchiectasis Registry (member site).
5. Australian and New Zealand Pulmonary Hypertension Registry (member site).
Articles:
Stewart, A., D. Sowden, M. Caffery, M. Bint, and J. Broom, Rhodococcus equi infection: A diverse spectrum of disease. IDCases (IF 0.790), 2019, 15 e00487.

Conference Abstracts
Women’s and families

Nurse researcher
Roni Cole
Roni.Cole@

Allied health
Angela Tully
Angela.Tully@

Paediatric
Dr Clare Thomas
Clare.Thomas2@

Obstetrics and gynaecology
Dr Rachel Nugent
Rachel.Nugent@

Neonatal
Dr Lizelle Weber
Lizelle.Weber@

Research interests

- complications of postpartum haemorrhage
- neonatal nutrition
- safe sleeping practices
- health of children in out of home care
- neonatal mental development
- paediatric transfers
- clinical practice, record systems, staff training and support
- early detection and intervention in children at risk of cerebral palsy
- water birthing.

Research Higher Degree students

- Amber Jenkins (PhD)
- Julie Creen (PhD)
- Laura Gabriel (PhD)
- Michelle Elks (PhD)
- Rachael Nugent (PhD)
- Rebecca Caesar (PhD)
- Rebecca Halsall (Masters)
- Bryanna Martin (Masters)
- Denya Hopkinson (Masters)

External research grants

Office of the Chief Nursing and Midwifery Research Grant ($40,000): Newly qualified midwives employed within Continuity of Care models; Lauren Kearney

Internal research grants

Wishlist/SERTF 2019 ($49,881.48): Promoting and facilitating spontaneous vaginal birth in nulliparous women at full term: systematic review, predictive cohort study and development of an evidence-based bundle of care; Kearney, L., Bogossian, F., George, K., Reed, R., Reeves, J. & Triggs, T
Wishlist/SERTF 2019 ($9,822.99): Mindfulness – Based Group Interventions for mental health concerns in the antenatal period: A Mixed Method enquiry into the efficacy, therapeutic mechanism and the interaction between mindfulness and peer support; Jenkins, A., George, K. & Kearney, L.
Wishlist HDR Scholarship ($33,595): Early Prediction of normal and mild neurodevelopmental outcomes for prioritisation of service delivery of very preterm, very low birthweight premature infants; Caesar, R.
Wishlist HDR Scholarship ($29,954): Transdisciplinary Advanced Allied Health Practice: Parental Engagement in Family-centred Consultative Therapy; Creen, J.
Wishlist HDR Scholarship ($65,735): Infant Care and Lifestyle Behaviours related to Sudden Unexpected Death in Infancy: A Queensland prevalence study. [The 2017 I-CARE Qld Study]; Cole, R.
Future research plans/interests

1. paediatric inter-facility transfers
2. IV access and fluid management during labour
3. spontaneous vaginal birth
4. cerebral palsy
5. service delivery for high risk infants.

Top research publications in 2019


Styles C., L. Kearney and K. George, Implementation and upscaling of midwifery continuity of care: the experience of midwives and obstetricians. Women and Birth (IF 1.525), 2019 Epub ahead of print

2019 full publication list


Styles C., L. Kearney and K. George, Implementation and upscaling of midwifery continuity of care: the experience of midwives and obstetricians. Women and Birth (IF 1.525), 2019 Epub ahead of print


Conference Abstracts


Young, J., L. Kearney, C. Rutherford, and J. Hoey, The ESCCaPE trial. Enabling safe and close care in postnatal environments: a pilot...Australian College of Midwives National Conference, 17-19 September
Research contact:
Dr Pankaj Jha
Pankajiha@health.qld.gov.au

Research interests

- cardiac and vascular health
- role of exercise in surgical patients
- erythrocyte fatty acid profiles in small abdominal aortic aneurysm.

Research publications in 2019


Research governance and support

Research Clinical Council

The Research Clinical Council (RCC) meets monthly and provides an opportunity for senior research clinicians to provide strategic advice and input on issues affecting research within the health service. The scope of the RCC’s activities is to provide advice to the Director Research, ensuring that clinician input is gained and included in all strategic research matters.

RCC members in 2019 were:

**Chair**
Adj Prof Brad McCall  
*Clinical Director - Research*

**Members**
Prof James O’Beirne  
*Staff Specialist Hepatology*
Roni Cole  
*Senior Research Fellow, W&F*
Dr Peter Garrett  
*Staff Specialist ICU*
Dr Rohan Grimley  
*SMO, Stroke and Geriatrics*
Adj Prof Nick Gray  
*Director Renal Services*
Dr Ingrid Rosbergen  
*Physiotherapist, Stroke/Rehabilitation*
Adj Prof Tony Stanton  
*SMO, Staff Specialist Cardiology*
Dr Bree Stephenson  
*SMO, Surgical Services*
Gemma Turato  
*Executive Director Allied Health*
Assoc Prof Ted Weaver  
*SMO Obstetrics and Gynaecology, and SC Clinical School Director*
Dr Annette Woodhouse  
*Nursing Director, Mental Health and Addiction Services*

If you would like further information about the RCC, or have a matter that you would like the RCC or ROG to consider, please contact the meeting secretariat via SC-Research-Support@health.qld.gov.au

Research Operations Group

The Research Operations Group (ROG) meets monthly and brings together key research personnel to collectively develop standardised procedures for the operation of research activity within the health service. The ROG is responsible for the identification of issues, proposal of solutions and the making of recommendations to the Director Research.

Some of the key activities of the ROG includes management of the development and maintenance of research standard operating procedures (SOPs), agreed methodologies for: reporting research activity and management of risk; allocation and utilisation of dedicated research desk space; financial management of research projects, including clinical trials; quality monitoring of approved research activity in support of the Research Governance and Development Unit and the identification of educational and professional development requirements for research staff.

ROG members in 2019 were:

**Chair**
Dr Sheree Cross  
*Manager Research*

**Members**
Christine Cocks  
*Nurse Researcher – Oncology Trials*
Lea-Anne Keen  
*A/Coordinator Research Systems*
Lauren Knesl  
*Pharmacist Research*
Anne Mouton  
*Business Advisor Research*
Lauren Murray  
*Clinical Nurse Research ICU*
Helen Rodgers  
*Nurse Manager Clinical Research*
Kym Roberts  
*Clinical Research Nurse – Emergency Department*
Megan Rutter  
*Principal Research Governance Officer*
Suzanne Ryan  
*Nurse Manager Research, Surgical Services*
Karen Watson  
*Research Support Officer*
Research Governance and Development Unit

The unit, led by Manager Research Dr Sheree Cross, has two broad functions within the health service:

1. To ensure all research conducted across our institution complies with required legislation and standards, has been appropriately reviewed and approved and research funds managed in accordance with agreed criteria.

2. To provide support to researchers in the development of new research programs, funding applications, research collaborations and partnerships, navigation of research approval requirements and general research advice.

The team can be found on level 1, Lakeside Building, SCUH (directly above the Wishlist Offices). This year, the team started working with the RCC and ROG to update all health service research-related policies, procedures, guidelines, templates, fact sheets and other support documentation which should be available on QHEPS throughout 2020.

In 2019, the unit developed a toolkit to help guide departments on how to approach the building of increased research capacity and capability within their departments. This step by step guide uses a self-assessment tool to help identify your research priorities and structure them into a research strategy. There are also tips on easily implementable activities that can be adopted to support the process of embedding research into health service departments.

Members of the Research Governance and Development Unit

Back Row (L-R) Dr Sheree Cross (Manager), Alix Stubbs (Grants Development), Carolyn Campbell and Anne Mouton (Business Advisors)

Front Row (L-R) Jennyfer Johnson (Director Support Officer and Administration), Leigh Wilks and Dr Karen Watson (Research Support)

Absent Megan Rutter (Principal Governance Officer)

SCHHS Research Development: Research Capacity and Development Toolkit

Supporting research and translation to patient care across our region

- Ethical and responsible conduct of research
- Research skills education and development support
- Research collaborations and partnerships
- Clinical trials development
- Showcasing research and researchers
- Research funding application support and grant management

Tell us how we can support your research

SCResearchSupport@health.qld.gov.au
Research publications 2019

Bold Text = SCHHS Affiliation;
Underlined = SCHI Partner Affiliation (University of the Sunshine Coast or Griffith University);
IF = Journal Impact Factor (Source: CiteFactor)

ARTICLES


142. Ziklo, N., W.M. Huston, K. Taing, and P. Timms, **High expression of IDO1 and TGF-β1 during recurrence and post infection clearance with Chlamydia trachomatis, are independent of host IFN-γ response.** Medical and Health Sciences 1107 Immunology. BMC Infectious Diseases (IF 2.825), 2019. 19(1).

**BOOK/THERAPEUTIC GUIDELINE**


**LETTERS**


**EDITORIALS**

CONFERENCE ABSTRACTS and POSTERS


42. Pietzsch, A. Free Poster Session. Pregnancy and return to work for trainees. ANZCA Combined Special Interest Group Meeting, 2019.


54. Seymour M. Non-specific abdominal pain: can patient requiring admission be predicted? Poster presentation for completion of MSC Surgical Services, March 2019, University of Edinburgh, Scotland.


61. **Thom O., K. Roberts, P. Leggat, S. Devine and R. Franklin**, *The role of non-invasive ventilation in reversal of hypoxia in drowning patients*. Presented at World Conference on Drowning Prevention, Durban, Oct 2019


63. **Trypis, G.**, *Promoting and supporting the health and wellbeing of medical radiation science students on clinical placement*. Journal of Medical Radiation Sciences (IF 0.574), 2019. 66(S1): p. 44.

64. **Trypis, G.**, *Radiation in space: The final frontier*. Journal of Medical Radiation Sciences (IF 0.574), 2019. 66(S1): p. 54.


67. **Whiteman, K.**, *Do radiographers have a perfect memory?* Journal of Medical Radiation Sciences (IF 0.574), 2019. 66(S1): p. 126.


70. **Willis, D.**, *Development of a virtual 3D linear accelerator model including patient specific geometry to facilitate collision prediction*. Journal of Medical Radiation Sciences (IF 0.574), 2019. 66(S1): p. 59.


INVITED SPEAKER


2. **Davies A.** *Know your anticoagulant*, Health Round Table Medication Safety Improvement Group, Brisbane, June 2019.


AWARDS/PRIZES

SCHI-based PARTNER PUBLICATIONS (No SCHHS Author)

ARTICLES


CONFERENCE ABSTRACTS
