MESSAGE FROM THE HEALTH SERVICE CHIEF EXECUTIVE

MESSAGE FROM THE DIRECTOR CLINICAL RESEARCH

MESSAGE FROM TRESA UNIT MANAGER & RESEARCH GOVERNANCE OFFICER

MESSAGE FROM HUMAN RESEARCH ETHICS COMMITTEE CHAIR

TROPICAL AUSTRALIAN ACADEMIC HEALTH CENTRE (TAAHC)

TOWNSVILLE HEALTH RESEARCH SHOWCASE

2017 STUDY EDUCATION RESEARCH TRUST ACCOUNT GRANTS

RESEARCH ACTIVITY

HEALTH & WELLBEING SERVICE GROUP

Dr Yoga Kandasamy

Dr Venkatesh Aithal

Research Grants

Publications

RGO Approved Research

MEDICAL SERVICE GROUP

Emergency Medicine Research

Dr Usman Malabu

Professor Damon Eisen

Dr Sabe Sabesan

Publications

Research Grants

RGO Approved Research

SURGICAL SERVICE GROUP

Collaboration with Orthopaedic Research Institute of Queensland (ORIQL)

Sonja Brennan

Dr Jonathan Golledge

Publications

RGO Approved Research

OTHER TOWNSVILLE HOSPITAL AND HEALTH SERVICE RESEARCH

Research Grants

Publications

RGO Approved Research

TOWNSVILLE HEALTH LIBRARY
Message from the Health Service Chief Executive

The Townsville Hospital and Health Service has a long and proud track record of fostering, encouraging and funding local health research.

This research has led to breakthrough changes in the way we care for our community and has also contributed in attracting world-class clinicians and researchers to our region.

In the past 12 months we have continued that proud research tradition and have celebrated key milestones that will continue to position us as the tertiary health and knowledge hub of Northern Australia.

The $5 million Townsville Institute of Clinical Research is now operational and provides a modern, state-of-the-art facility where researchers can study and conduct cutting edge health research.

We also signed a memorandum of understanding with James Cook University which commits our two organisations to collaborate to develop a co-located North Queensland Academic Health Hub Alliance.

The North Queensland Academic Health Hub Alliance would work to further enhance the co-located university and hospital at Douglas as a world class teaching and learning centre with a focus on research and innovation as well as expanding the availability of tertiary and secondary public health services to the community.

Our Study Education Research Trust Account (SERTA) program has provided funding for education and research in the Townsville HHS for more than 20 years.

In the latest round of funding includes research that explores the barriers stroke survivors have in maintaining rehab in their homes, research to identify and respond better to sepsis in children and research exploring how exercise can benefit patients at risk of dementia.

We know that demand for health services is increasing year on year and a strong research focus is important to find new and innovative ways to meet the challenge of increased demand.

Kieran Keyes
Health Service Chief Executive
Townsville Hospital and Health Service
Nurturing research enquiry takes time and considerable energy but there are plenty of rewards. The contribution of Townsville HHS clinical researchers to increasing healthcare knowledge is growing year upon year.

Our shared aim is to provide high-quality care to our patients knowing that the evidence for it is firm and it is cost effective. Pursuing and applying the results of clinical trials is cost-saving and therefore a crucial priority for healthcare. That’s what research contributes to.

The Townsville HHS Board is funding a clear research agenda that benefits our regions health. The grants provided by the Study, Education and Research Trust Account are being used to complete high quality research. When these grants are awarded they go to researchers who prove that their projects are scientifically robust and line up with the organisation’s strategic priorities. This is growing the expertise in numerous forms of research that is making the health service a better place to work. New research begets new researchers and these people are going to want to stay in a hospital like ours to build an exciting career for themselves. It’s a great cycle that injects energy and delivers rewards that enthuses more health scientists with new ideas all testing what they don’t know.

Wernher von Braun the father of rocket science said that ‘research is what I’m doing when I don’t know what I’m doing’. This Townsville HHS Research Report for 2017 goes a long way to show how much more we do know at the end of another exciting year’s discoveries.

Professor Damon Eisen
Professor of Medicine, James Cook University and Director Clinical Research, Townsville Hospital and Health Service
Prizes were awarded to:

- Maria Shilova for the presentation Angiosomes of the foot and their anatomical variation
- Sonja Brennan for the presentation A non-invasive method to detect glomerulomegaly in premature infants
- Stephen Perks for the presentation Extended Duration Infusion Temperatures in the Tropics: 2 (EDITT2)
- Lisan Yip for the presentation Physical activity and physical performance in patients with peripheral artery disease.

Researchers are now looking forward to the move to the dedicated research space at Townsville Hospital in mid-2018. As well as providing a dedicated clinical trials area the bringing together of researchers in one space will enhance collaboration across disciplines and provide a more conducive environment for conducting research.

**Sue Jenkins-March**
Manager, Townsville Research Education, Support & Administration and Research Governance Officer Townsville HHS
Message from the Human Research Ethics Committee Chair

The ethical justification for undertaking research is that the efforts of participants, who may be exposed to risk and burdens, will not be in vain. The efforts of research participants should contribute in some way for the greater good. Usually this occurs when the outcomes of research are made available, for example, via publications and presentations, so that practices can be adapted in response to the new evidence.

During 2017, in the health setting, the national and international focus has been on making sure that outcomes of research studies are made available so that the knowledge can contribute to improve the health care provided to patients, or can contribute to improve some other aspect of health service delivery such as staff satisfaction or maximizing the effectiveness of processes.

The Human Research Ethics Committee at Townsville Hospital and Health Service expects that outcomes will be shared—and in recent times the Committee has been very pleased to read about all of the publications and presentations of research that the Committee has approved.

Congratulations to the Townsville Hospital and Health Service, and all of the researchers whose projects we have been involved in. We’re excited to see and hear about the changes at a local level when outcomes influence practice, and contribute to better outcomes for patients, staff, and the hospital and health service in general.

Associate Professor Nikola Stepanov
Chair, Townsville HHS Human Research Ethics Committee
The Tropical Australian Academic Health Centre is a partnership between James Cook University (JCU), the Australian Institute of Tropical Health and Medicine (AITHM), the Northern Queensland Primary Healthcare Network (NQPHN) and the five Health and Hospital Systems (HHSs) from Mackay north – Mackay, Townsville, Cairns and Hinterland, North West, and Torres and Cape.

The partnership aims to foster research with four main priorities, all key to improving the health of tropical North Queensland populations:

- Service delivery to rural, remote, and indigenous populations for both chronic and emergency care
- Innovative health workforce models
- Chronic disease with high regional prevalence
- Infectious diseases and biosecurity.

Late in 2016, Townsville HHS on behalf of the partnership submitted a bid to the National Health and Medical Research Council (NHMRC) for national recognition as one of its newly-designated Centres for Innovation in Regional Health (CIRH). Although not successful in that first round, the submission was shortlisted and the partnership encouraged to resubmit in the next round (at the end of 2018) when its structure and activities were more established.

Throughout 2017, TAAHC undertook to formalize its legal and governance arrangements, and to finalise those arrangements in 2018. The institutional partners decided that TAAHC would be structured as a company with a constitution and procedures aimed at fostering collaborative research projects between the partners, developing and improving research capacity in the health system throughout the region, and providing opportunities for staff to enhance their research skills and activity.

Townsville HHS research already includes significant collaboration with other TAAHC partners, to the benefit of both the research and the participating researchers. The Townsville Hospital researchers, research managers and leaders continue to be key contributors to the development of TAAHC.

Emeritus Professor Rhondda Jones

Director of Research Development, Division of Tropical Health & Medicine James Cook University
Townsville Hospital and Health Service and James Cook University were proud to join again to host the 2017 Townsville Research Health Showcase.

The annual showcase is a unique opportunity to demonstrate health research taking place across the Health Service and Academic campus with an emphasis on collaborative research which harnesses the collective power of both institutions. It provides an excellent opportunity for staff who may have the beginning of an idea for research to meet people who can help turn their dream into a reality.

Workshops on research methodology, statistics, writing for publication and health economics for research were conducting in the mornings, followed by plenary speeches from special guests and abstract presentations in the afternoons. Sessions were well attended, and the Research Networking Dinner was a sold-out affair.

49 Abstracts presented

31 Posters submitted

100 Attendees at Research Networking Dinner
Indigenous Health Service Group
Understanding unique communication vital in Indigenous Research
The 2017 Townsville Health Research Showcase was an opportunity to enhance researchers understanding of communication with people who are Aboriginal or Torres Strait Islander in relation to research projects.

Townsville Hospital and Health Service cultural practice coordinator Trevor Prior led a team initiative to present on the topic of effective communication for Aboriginal and Torres Strait Islander people and said Indigenous people had their own unique form of communication and understanding “This is really important for researchers to understand when researching Indigenous health as well as involving Indigenous people in their research.” The session highlighted the importance of building relationships and making a connection with patients before approaching them about research studies.

The Indigenous Health Service Group also presented on Developing a Health Profile on Palm Island, Preventable Hospital Admissions, and Research Protocols involving Aboriginal and Torres Strait Islanders.

Plenary Speakers
Professor David McGiffin Director of Cardiothoracic Surgery and Transplantation at the Alfred Hospital research interests are primarily outcomes analysis in cardiac surgery and transplantation. Other areas of interest include homograft aortic valves and research into biomechanics and myocardial oxidative stress associated with chronic mitral regurgitation.

Dr Rosalie Boyce PhD - a recognised authority on the management and organisation of the allied health professions. Rosalie’s research career spans two decades investigating how professions and organisations are reshaping themselves in the face of significant health workforce reform agendas.

Professor Cate Nagle – A recent arrival at Townsville HHS, Cate’s past program of research encompassed acute and public health with a particular focus on safety and quality of care, understanding and enhancing the patient’s experience of care and workforce development.

Research Networking Dinner
The 2017 Research Networking Dinner was a sold-out event at the C-Bar Restaurant on the Strand. The dinner serves as a rare opportunity for multi-disciplinary researchers and research support staff from all areas of the health service and university to get together in a social setting. The guest speaker for the dinner was Dr Nikola Stepanov – Integrity Commissioner for Queensland Parliament who is a leading figure in the Australian Health Ethics.
2017 Study Education Research Trust Account Grants (SERTA)

The Study, Education, Research Trust Account (SERTA) is the source of funding for research at Townsville Hospital and Health Service. This trust account is maintained by private practice income from specialist Senior and Visiting Medical Officers.

SERTA funds are used for research grants and opportunities for staff development.

Research grant funding is decided since assessment of research merit, by an external review panel and the degree of organisational objective alignment, which is assessed by the Townsville HHS Research Trust Fund Advisory Committee (RTFAC). The decision regarding successful research grant funding is made by the Townsville Health Service Chief Executive, on the recommendation of the RTFAC. Applications for funding for professional development activities are assessed by the Chair of the RTFAC. A very generous amount of SERTA grant funding is awarded each year. In 2017, the amount for research grant funding was $320,000 and professional development funding was $29,708.

The recent renovation of the Townsville Institute for Clinical Research Centre has been funded by SERTA resources.

High quality research could not be undertaken at Townsville HHS without SERTA. Use of SERTA funds is making Townsville HHS a more interesting workplace and helping to attract high-quality clinical staff.
<table>
<thead>
<tr>
<th>Investigators</th>
<th>Collaborating Institutes</th>
<th>Project Title</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Tejas Pratap Singh</td>
<td>James Cook University</td>
<td>Presentation and outcomes of Indigenous Australians with peripheral artery disease.</td>
<td>$40,000</td>
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<tr>
<td>Amy Brown</td>
<td>James Cook University</td>
<td>Health Technology Assessment of the Clirity Autoscan system: Motion correction and margin reduction in the radiation therapy treatment of prostate cancer</td>
<td>$11,290</td>
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<td>Julia Peters</td>
<td>Emergency Medicine Research Children’s Emergency Department, Starship Children’s Hospital, Auckland, New Zealand; Royal Children’s Hospital, Melbourne; Murdoch Childrens Research Institute</td>
<td>Knowledge Translation in Australasian Paediatric Acute Care Settings: A multi-centred, cluster-randomised controlled trial comparing a tailored, theory informed Knowledge Translation intervention versus passive dissemination of a bronchiolitis guideline (PREDICT KT study)</td>
<td>$18,323</td>
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<tr>
<td>Damon Eisen</td>
<td>Orthopaedic Research Institute of Queensland; Burns Trauma and Critical Care Research Centre, University of Queensland</td>
<td>Measuring aspirin penetration into synovial fluid to assess its potential for prevention of prosthetic joint infection</td>
<td>$39,450</td>
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<td>Matt Bryant</td>
<td>James Cook University</td>
<td>What are the barriers to Referral to a Pain Management Clinic for Indigenous People? (Qualitative Phase)</td>
<td>$4,000</td>
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<tr>
<td>Kaushik Hazratwala</td>
<td>Orthopaedic Research Institute of Queensland; College of Medicine &amp; Dentistry at James Cook University</td>
<td>The effect of a novel front-line drug therapy (ALM) on reducing adhesions following joint arthroplasty in a rat model of arthrofibrosis</td>
<td>$19,870</td>
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<td>Debra Phillips</td>
<td>Lady Cilento Children’s Hospital BurnsNQ</td>
<td>Evaluation of an OT-led paediatric burns telehealth review clinic</td>
<td>$47,153</td>
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<td>Andrew Cartwright</td>
<td>James Cook University</td>
<td>Evaluation of the benefits of incorporating a trained assistant in Computed Tomography (CT)</td>
<td>$29,768</td>
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<tr>
<td>Yoga Kandasamy</td>
<td>James Cook University</td>
<td>Discovering the Faecal Microbiome Associated with Pre-Term Birth</td>
<td>$27,584</td>
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<tr>
<td>Guan Koh</td>
<td>James Cook University - Singapore; KK Women’s and Children’s Hospital, Singapore; Duke-NUS University, Singapore</td>
<td>Bowel Sounds Sensor (BoSS) Project Phase 1 in term newborn babies</td>
<td>$43,598</td>
</tr>
</tbody>
</table>
Total Publications - Total 159

- Health & Wellbeing Service Group: 22
- Medical Service Group: 47
- Surgical Service Group: 82
- Pathology Queensland: 5
- Corporate Services: 3

Data as at 31 December 2017

RGO Approved Studies - Total 104

- Health & Wellbeing Service Group: 23
- Medical Service Group: 46
- Surgical Service Group: 15
- Pathology Queensland: 2
- Mental Health Service Group: 4
- Indigenous Health Service Group: 1
- Corporate Services: 11
- Rural Hospitals Service Group: 2

Data as at 31 December 2017
Reported Funding - **Total $1,121,158**

- **Surgical Service Group**: $609,219
- **Health & Wellbeing Service Group**: $59,986
- **Medical Service Group**: $451,953

Data as at 31 December 2017

Externally Funded Authorised Studies - **Total 29**

- **Health & Wellbeing Service Group**: 1
- **Medical Service Group**: 22
- **Surgical Service Group**: 5
- **Mental Health Service Group**: 1

Data as at 31 December 2017
Health & Wellbeing Service Group
Vicki Carson, Service Group Director

2017 was a big year for the Health and Wellbeing Service group, with over 20 separate research publications and more than 20 research projects approved. The service group prides itself on delivering and supporting services that are best practice and continues to encourage clinicians to undertake activities and projects to further expand the depth of research in their fields.

Health and Wellbeing Service Group continues to collaborate with our research partners James Cook University and we wish to acknowledge the significant contribution that Allied Health research has made to the Townsville HHS – through organisational change, a new Allied Health Services Division has been established which will enable Allied Health professions to continue to flourish.
Dr Kandasamy works as a Senior Neonatal Paediatrician.

He graduated with a medical degree from University of Malaya, Malaysia in 1995. He obtained a Masters degree in Clinical Epidemiology and a PhD from the University of Newcastle, NSW. In 2014, Dr Kandasamy received a National Health and Medical Research Council New Investigator Project grant to carry out research into the effects of prematurity and low birth weight on retinal and renal development. Dr Kandasamy’s area of research is in neonatal medicine, specifically effects of prematurity on development of the kidney and retina, and neonatal health in Indigenous babies.

**Publications:**


Venkatesh Aithal is a consultant clinical audiologist and head of Audiology Department, The Townsville HHS, Queensland.

Venkatesh is an active researcher and has led the audiology service at The Townsville Hospital (TTH) and Community Health, Kirwan for 14 years. He has successfully obtained various research grants with a total in excess of $550,000 in the last 10 years. His team recently received a grant ($215,000) from the New Technology Funding and Evaluation Program on wideband absorbance for 2014-16. He has actively collaborated with the Hearing Research Unit, School of Health and Rehabilitation Sciences, University of Queensland for the last 8 years. Venkatesh recently completed his PhD on identification of middle ear pathology in infants using an innovative technology called sweep frequency impedance (SFI) technique for the first time in Australia.

**Publications:**


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**Dr Venkatesh Aithal**

*Audiology*

**Research Team:**

Dr Sreedevi Aithal - Principal Investigator
Associate Prof Joseph Kei – Investigator
Associate Prof Carlie Driscoll – Investigator
Dr Shane Anderson – Investigator
Katrina Robert - Investigator
Joshua Myers - Investigator
Melissa Forrester - Investigator

**Research Collaborations:**

School of Health and Rehabilitation Sciences (SHRS), University of Queensland
Department of Ears Nose and Throat, Townsville Hospital
Health and Wellbeing Service group

**Research Grants:**

**Grant Name:** Tele-audiology project
**Grant Application Title:** Townsville HHS Tele-audiology pilot project
**Grant Amount:** $19,986
Health & Wellbeing Service Group Research Grants

<table>
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<tr>
<th>Investigators</th>
<th>Grant Title</th>
<th>Grant body/scheme</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Tim McNabb</td>
<td>Improving outpatient patient experience and reducing operational costs through the use of Internet of things (IOT) technology</td>
<td>Study Education Research Trust Account</td>
<td>$40,000</td>
</tr>
</tbody>
</table>

Health & Wellbeing Service Group Research Publications


8. AITHAL, V., KEI, J., DRISCOLL, C., MURAKOSHI, M., WADA, H., 2017. Predictive accuracy of sweep frequency impedance technology in identifying conductive...
conditions in newborns. *Journal of the American Academy of Audiology*. 106-117


**Biggest obstacles overcome in your research journey?**

More of a challenge than an obstacle, it can be challenging to balance full-time clinical work with research. The hospital is kind to my research and the support is there, I have been fortunate to get funding.

- Dr Yoga Kandasamy
# Health & Wellbeing Service Group RGO Approved Research

<table>
<thead>
<tr>
<th>Investigators</th>
<th>Department</th>
<th>Grant Title</th>
<th>Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Donna Rudd</td>
<td>Neonatal ICU</td>
<td>Neonatal Microbiome Project</td>
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<tr>
<td>Dr Meegan Kilcullen</td>
<td>Neonatology</td>
<td>The role of telemedicine in providing Family Centred Care for premature babies and their families from regional remote Queensland</td>
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<tr>
<td>Prof Guan Koh</td>
<td>Neonatology (recruitment from various departments)</td>
<td>A randomised controlled trial comparing prophylactic oral dextrose gel with placebo in newborn babies at risk of neonatal hypoglycemia.</td>
<td>Health Research Council of New Zealand</td>
</tr>
<tr>
<td>Dr Jessica Little</td>
<td>Obstetrics &amp; Gynaecology</td>
<td>Bishop’s Score as A Predictor of Successful Induction of Labour In Obese Women: A Retrospective Cohort Study</td>
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</tr>
<tr>
<td>Dr David Watson</td>
<td>Obstetrics &amp; Gynaecology</td>
<td>Closing the gap in the stillbirth rate: understanding the issues and challenges in gaining permission for autopsy</td>
<td></td>
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<tr>
<td>Ingrid Nylander</td>
<td>Obstetrics &amp; Gynaecology</td>
<td>A staff survey in regard to Occupational Health and Safety issues while caring for overweight ladies during their pregnancy journey</td>
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<tr>
<td>Prof Ajay Rane</td>
<td>Obstetrics &amp; Gynaecology</td>
<td>Evaluating ease of use and acceptability of a perineal measuring device (Episiometer) in ensuring correct angle and length of mediolateral episiotomy</td>
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<tr>
<td>Helen Buschel</td>
<td>Paediatric Surgery – Paediatric Outreach</td>
<td>The Epidemiology and Short-Term Outcomes of Paediatric Burns in the North Queensland Population During 2016: A Retrospective Study</td>
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<tr>
<td>Dr Anne Miller</td>
<td>Paediatrics</td>
<td>Rates of overweight and obesity in kids accessing care at The Townsville Hospital</td>
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<tr>
<td>Shreyansi Sharma</td>
<td>Paediatrics - Obstetrics &amp; Gynaecology</td>
<td>Female genital mutilation: knowledge, attitudes and perceptions of medical professionals in a regional setting</td>
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<td>Mrs Nina Meloncelli</td>
<td>Obstetrics &amp; Gynaecology</td>
<td>Examining the management of gestational diabetes mellitus</td>
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<tr>
<td>Miss Audrey Heng</td>
<td>Townsville Sexual Health Service</td>
<td>Clinician and patient perspectives regarding transgender health care: A North Queensland focus</td>
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<tr>
<td>Investigators</td>
<td>Department</td>
<td>Grant Title</td>
<td>Funding Source</td>
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<tr>
<td>Janelle McAlpine</td>
<td>Obstetrics &amp; Gynaecology</td>
<td>Development, validation and application of a cross cultural digital data collection tool to identify nutrition profiles, their determinants and associations with reproductive outcomes in women</td>
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<tr>
<td>Miss Diane Quach</td>
<td>Women &amp; Children's Clinic Townsville Hospital and Health Service</td>
<td>Women's decision-making around epidurals in labour: a Townsville perspective</td>
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<tr>
<td>Ms Kerry Marnane</td>
<td>Acute Stroke Unit, Rehabilitation Unit, Physiotherapy Department, Allied Health Department, Medical Service Group, Health Information Management Services</td>
<td>Building efficient and equitable pathways to and through rehabilitation in stroke: A qualitative exploration</td>
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<tr>
<td>Prof Lisa Nissen</td>
<td>Allied Health</td>
<td>Allied Health Prescribing Evaluation Project-Appropriateness of Podiatric Prescribing</td>
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<td>Katharine Clifford</td>
<td>North Ward Dialysis Unit</td>
<td>Let's get active at North Ward Dialysis Unit</td>
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<tr>
<td>Dr Adrienne Young</td>
<td>Nutrition and Dietetics</td>
<td>Introducing a Systematized, Interdisciplinary Malnutrition Program Implementation and Evaluation – The SIMPLE Approach to managing inpatient malnutrition</td>
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<tr>
<td>Ms Debra Phillips</td>
<td>Occupational Therapy</td>
<td>Evaluation of an Occupational Therapy led Paediatric Burns Telehealth Review Clinic: exploring the experience of family/carers and clinicians</td>
<td></td>
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<td>Mrs Sarah Jackson</td>
<td>Occupational Therapy - Performance and Reporting Unit</td>
<td>Stroke survivors’ perspective on their recovery journey: the rural and remote northwest Queensland experience</td>
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<td>Ms Joanna Hargreaves</td>
<td>Physiotherapy</td>
<td>Development of a clinical educator survey tool for determining clinical placement quality - validity and reliability testing of the CPQS-E tool (Clinical Placement Quality Survey - Educator)</td>
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<tr>
<td>Susan Stoikov</td>
<td>Physiotherapy</td>
<td>Perceptions of physiotherapists on the contribution of physiotherapy students to the delivery of health services and the transition from student to new graduate.</td>
<td></td>
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<tr>
<td>Frances Cochrane</td>
<td>Speech Pathology</td>
<td>Speech pathology services for Aboriginal and Torres Strait Islander adults with acquired neurogenic communication disorders - Study 1 (retrospective chart audit)</td>
<td></td>
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</tbody>
</table>
Grant funding to support research had been received from many bodies including Townsville HHS SERTA, the Emergency Medicine Foundation, JCU amongst others. Again, the commitment to apply for and secure funding is acknowledged and recognised.

In summary, the Medical Service Group continues to support the profile of research and the involvement of staff in undertaking research, recognising its critical role in improving patient outcomes and experience.

During 2017, the staff across the Medical Service Group continued their involvement in clinical research which has been well established for several years. This research initiative is growing and includes original research, involvement in multi-centre clinical trials and large multi-centre drug therapy trials.

The list of publications is long and varied and includes publications in major clinical journals. These reflect the dedication and commitment to improving health care provision and are a testament to the significant work undertaken by the teams involved.
In 2010, a group of senior ED clinicians and researchers made a successful bid for a Queensland Emergency Medicine Research Fund (QEMRF) Research Capacity Building Grant.

This was matched by the Private Practice Trust Fund (PPTF) and in total delivered $420,000 in research funding to the ED. The Capacity Building Grant was championed by Dr Peter Aitken, an eminent staff specialist with a widely recognised body of work in emergency medicine, clinical education, disaster health and aeromedical retrievals. Dr Aitken worked with a keen group of clinicians with developing track records in research, including the ED’s Director of Research, Dr Jeremy Furyk. Collectively their interests include: paediatric emergency medicine, diving and hyperbaric medicine and clinical trials.

In 2012, TTH Emergency Department (ED) was admitted to the Paediatric Research in Emergency Department International Collaborative (PREDICT) Network which is an intentional group consisting of selected tertiary children’s hospital EDs. PREDICT aims to provide leadership; infrastructure for multi-centre research; and facilitate collaboration between institutions, health care providers, and researchers in Paediatric Emergency Medicine. In 2014 the PREDICT Network was awarded a National Health and Medical Research Council Centre for Research Excellence grant. TTH ED has supported numerous PREDICT studies in paediatric emergency medicine. Several trials have also been locally developed and implemented throughout Australia and New Zealand.

Emergency Medicine Research

Research Team:
Hannah Makrides, Investigator
Luke Lawton, Investigator
Karthik Velusamy, Investigator
Leonie Jones, Clinical Research Co-ordinator
Nicoie Chapman, Clinical Research Co-ordinator
Vinay Gangathimaiah, Director of Emergency Medicine Research

Research Collaborations:
Gold Coast Hospital and Health Service Emergency Department
Cairns and Hinterland Hospital and Health Service Emergency Department
Mackay Hospital and Health Service Emergency Department
Mount Isa Hospital Emergency Department North West Hospital and Health Service
James Cook University Townsville
Retrieval Services Queensland
Royal Brisbane and Women’s Hospital Emergency Department, Metro North Hospital and Health Service
University of Queensland
PREDICT: Paediatric Research in Emergency Departments International Collaborative
PERN: Paediatric Emergency Research Networks (USA Collaboration)
EMF: Emergency Medicine Foundation The HALT-IT trial: Tranexamic Acid for the Treatment of Gastrointestinal Bleeding, an International Trial
Associate Professor Usman Malabu is a foundation member of Translational Research in Endocrinology and Diabetes (TREAD) at the College of Medicine and Dentistry, James Cook University.

Associate Professor Malabu joined James Cook University in 2007 and established the TREAD with the aim of carrying out research intended to be translated into improved management of diabetes and endocrine diseases. Trained as endocrinologist, Associate Professor Malabu spent 2 years of his specialist training to obtain experience in experimental and laboratory research techniques in endocrinology and diabetes at the University of Liverpool and Royal Liverpool Hospital, UK. Dr Malabu’s current roles include that of Head of James Cook University’s TREAD, Head of JCU/ AITHM PNG Diabetes and Tuberculosis Projects in New Ireland Province.

Dr Malabu has developed several Telehealth models to address access issues faced by undeserved populations in Australia’s Indigenous Communities and PNG’s Pacific Islanders in areas of communicable and non-communicable diseases notably diabetes and tuberculosis. These include the Townsville Tele-diabetes and Tele-endocrinology Models based in Australia and m-health interactive voice recognition model in PNG’s Kavieng that have attracted national and international recognition with active participation of AITHM, BUPA Health Foundation, Australian Diabetes Society, Queensland Government and World Diabetes Foundation.

His main research theme has been the evaluation of diagnostic, therapeutic and access to care of diabetic foot complications using innovative models that suit rural/remote communities. Novel diagnostic tests for diabetic foot infections in remote areas have been published by TREAD under his leadership while new modes of therapy has been evaluated.
Research Collaborations:
Professor John D. Piette University of Michigan
USA Ann Arbor Center for Clinical Management
Research -TeleDiabetes Projects
Professor Yogesan Kanagasingam, Australian
e-Health Research Centre, Harvard University USA
–TeleDiabetes in Rural Areas
Mr Daisuke Yajima, Nomura Research Institute,
Japan –Telerobotic for Infection Control at TTH
Professor Patrick Kyamanywa, Kampala
International University Uganda- Telediabetes
Professor Chidum Ezenwaka -University of
West Indies St Augustine, Trinidad and Tobago
-Diabetes in Tropical/Rural Areas
Distinguished Professor Jonathan Golledge,
Queensland Centre of Excellence for Vascular
diseases, JCU Townsville
Professor Sabe Sabesan –TeleDiabetes in North
Queensland
Professor Emma McBryde, AITHM/JCU —-Diabetes
and Tuberculosis in PNG
Professor Robyn McDermott, Centre for Chronic
Disease Prevention JCU Cairns –Telehealth
Professor Yvonne Cadet-James Head, Indigenous
Studies -JCU Indigenous Health

Research Grants:
Grant: Queensland Health Telehealth Seed
Funding
Investigator: Usman Malabu
Grant Title: Integrated 3-D Camera Assisted
Telehealth: Connecting Diabetic Eye and Foot
Care in Rural/Remote NQ

Grant: Townsville HHS SERTA Fund
Investigator: Oliver Hayes
Grant Title: Use of Procalcitonin in Diagnosing
and Monitoring Diabetic Foot Cellulitis and
Osteomyelitis at The Townsville Hospital–A Pilot
Study

Grant: Rotary Club
Investigator: Robyn Chadwick
Grant Title: Teleophthalmology for diabetes care
at the Townsville Hospital

Grant: Queensland Government Community
Grant
Investigator: Usman Malabu
Grant Title: Townsville Multicultural Youth
Soccer Tournament

Grant: Queensland Government Community
Grant
Investigator: Usman Malabu
Grant Title: Townsville Multicultural Food for
Unity

Publications:
Mann JFE, Ørsted DD, Brown-Frandsen K, Marso SP,
Poulter NR, Rasmussen S, Tornøe K, Zinman B, Buse
JB; LEADER Steering Committee and Investigators.
Liraglutide and Renal Outcomes in Type 2 Diabetes.

What first sparked your interest in research?
I was an editor for the Australasian Sonography Association
Journal which led to an interest in evidence. The concept of
answering questions was both challenging and exciting.
- Sonia Brennan, Consultant Sonographer, Medical Imaging
Department
Professor Damon Eisen
Infectious Diseases

Research Team:
Dr Peter Mulvey - Post doctoral fellow - Australian Institute of Tropical Health and Medicine (AITHM)
Eva Duck - Research Assistant - Australian Institute of Tropical Health and Medicine (AITHM)
Sebastian Primrose - Research Assistant - Australian Institute of Tropical Health and Medicine (AITHM)
Elizabeth Heyer - Clinical Trials Coordinator - Townsville Hospital and Health Service
Dr Beth Hamilton - JHO Clinical Researcher - Townsville Hospital and Health Service
Dr Brett Travers - JHO Clinical Researcher - Townsville Hospital and Health Service
Harmann Jitt - MBBS Clinical Researcher - Townsville Hospital and Health Service

Research Collaborations:
Monash University; Department of Epidemiology and Preventive Medicine
Queensland Institute of Medical Research – Berghoffer; Scabies Unit
Northumbria Health Trust; Orthopaedic Clinical Research Unit
University of Queensland; Centre for Translational Pharmacodynamics

Professor Eisen has designed and commenced work on a group of research trials involving severe and recurrent infections.

These include a randomised controlled trial - The Aspirin To Inhibit SEPSIS (ANTI SEPSIS) trial; an ASPREE Substudy to measure the benefit of low dose aspirin in the prevention of severe sepsis. This uses a large primary prevention randomised controlled trial comparing low-dose aspirin with placebo. Professor Eisen will determine whether 100 mg aspirin / day is effective in preventing death due to severe infection in the 17,000 elderly patients who were included in the trial and followed for a minimum of 5 years.

Publications:


Publications continued:

Management of Tuberculosis; A guide for clinicians. TB Forum 2017.

Research Grants:
Grant Name: Study, Education, Research Trust Account (SERTA)
Grant Application Title: Measuring aspirin and its biometabolites penetration into synovial fluid to assess its potential for prevention of prosthetic joint infection using in vitro and experimental animal models. 2017 Principal Investigator Professor Damon Eisen
Grant Amount: $39,450

Grant Name: James Cook University New Professor Grant
Grant Application Title: Testing the impact of aspirin on biofilm formation of uropathogens and nasopharyngeal Staphylococcus aureus; leveraging a clinical trial to understand phenotypic and genotypic change in bacteria that frequently cause infection
Grant Amount: $25,000

Research goals for the future?
I look forward to Townsville HHS developing a national and international profile for conducting nursing and midwifery research that transforms clinical care, optimises clinical outcomes and improves patients’ experience of healthcare.
- Professor Cate Nagle, Professor of Nursing and Midwifery
Professor Sabe Sabesan, BMBS, PhD, FRACP is the Clinical Dean of the Northern Clinical Training Network-Townsville, a joint training venture between James Cook University and the Townsville Hospital and Health Services and the Director of the Department of Medical Oncology at the Townsville Cancer Centre, Townsville Hospital.

He is a nationally and internationally recognised expert in the area of teleoncology and developed and evaluated various teleoncology models of care to deliver rural cancer care closer to home including the Queensland Remote Chemotherapy Supervision (QReCS) model which is adopted by the Queensland Health and Australasian Teletrial Model and national guide on behalf of the Clinical Oncology Society of Australia (COSA). He is the program lead for the Tropical Centre for Telehealth Practice and Research, a joint initiative between The Townsville Hospital and the AITHM.

His research collaborations include the Menzies School of Health Research, various Australian clinical trial groups and clinicians and academics within Queensland Health and James Cook University in the areas of telehealth, rural and Indigenous health. Internationally, he collaborates with clinicians from Sri Lanka and India in the area of telehealth. To date, he has received more than $7 million in grants from National Health and Medical Research Council, Cancer Institute of NSW and Queensland Health Innovation funds. Dr Sabesan has contributed to the development of ANZ melanoma and prostate cancer guidelines, clinical practice guidelines for teleoncology and RACP telehealth and tele supervision guidelines. As a member of the oncology education committee, he co-edited the web book “Clinical Oncology for medical students” in collaboration with all 20 medical schools in Australia and New Zealand on behalf of the Cancer Council of Australia.

Publications continued:

Medical Service Group Publications


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**Medical Service Group Research Grants**

<table>
<thead>
<tr>
<th>Investigators</th>
<th>Grant Title</th>
<th>Grant body/scheme</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrie Miles</td>
<td>Update of Cancer Nurses Society of Australia Position Statements on the minimum safety and education requirements for nurse administration of anti-neoplastic drugs</td>
<td>Cancer Nurses Australia Society</td>
<td>$7,500</td>
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<tr>
<td>Denise Blake</td>
<td>First aid oxygen treatment of divers with decompression sickness</td>
<td>Emergency Medicine Foundation</td>
<td>$30,003</td>
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<tr>
<td>Investigators</td>
<td>Department</td>
<td>Grant Title</td>
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</tr>
<tr>
<td>A/Prof Usman Malabu</td>
<td>Department of Endocrinology and Diabetes</td>
<td>Use of Procalcitonin in Diagnosing and Monitoring Diabetic Foot Osteomyelitis at The Townsville Hospital–A Pilot Study</td>
<td></td>
</tr>
<tr>
<td>A/Prof Usman Malabu</td>
<td>Department of Endocrinology and Diabetes</td>
<td>The Impact of Telemedicine in the Management of Diabetes in Rural/Remote North Queensland: A Retrospective Cohort Study</td>
<td></td>
</tr>
<tr>
<td>A/Prof Usman Malabu</td>
<td>Department of Endocrinology and Diabetes</td>
<td>Management of Diabetic Foot Ulcer by Electromagnetic Stimulator Therapy at The Townsville Hospital – A Pilot Study</td>
<td></td>
</tr>
<tr>
<td>Dr Nadia Sugiarto</td>
<td>Department of Endocrinology and Diabetes</td>
<td>A 2-year retrospective cohort study of dapagliflozin’s effect on renal and metabolic parameters in patients diagnosed with Type 2 Diabetes Mellitus at The Townsville Hospital</td>
<td></td>
</tr>
<tr>
<td>Dr Amy Hsieh</td>
<td>Department of Endocrinology and Diabetes</td>
<td>Retrospective audit to determine clinical profile, treatment approach and outcome of Graves’ Disease at The Townsville Hospital: 10-year review</td>
<td></td>
</tr>
<tr>
<td>Dr Paul Miles</td>
<td>Emergency Department</td>
<td>My Health Record</td>
<td></td>
</tr>
<tr>
<td>Mrs Susan Montgomery</td>
<td>Emergency Department</td>
<td>Knowledge Translation in Australasian Paediatric Acute Care Settings: a multi-centred, cluster, randomised controlled trial comparing a tailored, theory informed Knowledge Translation intervention versus passive dissemination of a bronchiolitis guideline</td>
<td>National Health and Medical Research Council – Murdoch Children’s Research Institute</td>
</tr>
<tr>
<td>Dr Jeremy Furyk</td>
<td>Emergency Department</td>
<td>Fibrinogen Concentrate vs Cryoprecipitate in Traumatic Haemorrhage: A Pilot Randomised Controlled Study</td>
<td>Emergency Medicine Foundation and Gold Coast Hospital and Health Service</td>
</tr>
<tr>
<td>Dr Jeremy Furyk</td>
<td>Emergency Department</td>
<td>Evaluating the Impact of Alcohol on emergency department presentations</td>
<td>Health Improvement Unit Queensland Health – Gold Coast Hospital and Health Service</td>
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<tr>
<td>Investigators</td>
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<td>Grant Title</td>
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<tr>
<td>Dr Jeremy Furyk</td>
<td>Emergency Department</td>
<td>Understanding serious quad bike-related injuries in Queensland and Northern Territory: Comparing circumstances, patterns, severity, costs and outcomes</td>
<td></td>
</tr>
<tr>
<td>Dr Karthik Velusamy</td>
<td>Emergency Department</td>
<td>Bell’s Palsy in Children: A Multi-Centre, Randomised Blinded, Placebo Controlled Trial to Determine Whether Prednisolone Improves Time to Recovery At 1 Month</td>
<td>Emergency Medicine Foundation</td>
</tr>
<tr>
<td>Mr Rishabh Verma</td>
<td>Emergency Department</td>
<td>Comparison of administration patterns of antiemetics in the ED and pre-hospital setting</td>
<td></td>
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<tr>
<td>Dr Luke Burman</td>
<td>Emergency Department</td>
<td>Ketamine Intranasal Delivery in the Emergency Room: A multicentre, randomised control trial of IN versus IV/IM ketamine for paediatric sedation in the Emergency Department. Is a totally needle-free approach feasible?</td>
<td></td>
</tr>
<tr>
<td>Dr Kaushik Hazratwala</td>
<td>Orthopaedic Surgery and Emergency Department</td>
<td>A Combined Randomised and Observational Study of Surgery for Fractures In the distal Radius in the Elderly (CROSSFIRE)</td>
<td>Whitlam Orthopaedic Research Centre</td>
</tr>
<tr>
<td>Dr John Masson</td>
<td>Endoscopy</td>
<td>Hookworm Therapy for Coeliac Disease: A phase Ib safety and dose-ranging clinical trial examining sustained gluten consumption in hookworm-naive and hookworm-infected people with coeliac disease.</td>
<td>National Health and Medical Research Council &amp; James Cook University</td>
</tr>
<tr>
<td>Ms Jodie Marsh</td>
<td>Haematology and Bone Marrow Transplantation</td>
<td>The Evaluation of Hyperhydration for High Dose Melphalan in Stem Cell Transplantation: A Pilot Study</td>
<td></td>
</tr>
<tr>
<td>Dr Hock Choong Lai</td>
<td>Haematology Oncology</td>
<td>A Multicenter Randomized Double-blind Placebo-controlled Phase 3 Study of the Bruton’s Tyrosine Kinase (BTK) Inhibitor Ibrutinib in Combination with Rituximab versus Placebo in Combination with Rituximab in Treatment</td>
<td>PPD Australia Pty Ltd</td>
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<tr>
<td>Prof Damon Eisen</td>
<td>Infectious Diseases</td>
<td>Use of High-risk Influenza Stratification Test (HIST) in Patients with Suspected Infection</td>
<td>Neapean Hospital</td>
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<tr>
<td>Prof Damon Eisen</td>
<td>Infectious Diseases</td>
<td>Microbiological testing of aspirin’s effects on bacteria that cause urinary tract infection.</td>
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<tr>
<td>Prof Damon Eisen</td>
<td>Infectious Diseases</td>
<td>Mechanisms of aspirin therapy in sepsis.</td>
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<tr>
<td>Investigators</td>
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<tr>
<td>Dr Candice Holland</td>
<td>Infectious Diseases</td>
<td>Is there an association between the social determinants of health and health care-associated infections?</td>
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<tr>
<td>Dr Suresh Varma</td>
<td>Medical Oncology</td>
<td>A Phase III, Double-Blinded, Randomized, Placebo Controlled Study of Atezolizumab Plus Cobimetinib And Vemurafenib Versus Placebo Plus Cobimetinib And Vemurafenib In Previously Untreated BrafV600 Mutation-Positive Patients with Unresectable Locally Advanced Or Metastatic Melanoma</td>
<td>Roche Products Pty Ltd</td>
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<tr>
<td>Dr Suresh Varma</td>
<td>Medical Oncology</td>
<td>A Phase III, Open-Label, Multicenter, Two-Arm, Randomized Study to Investigate the Efficacy and Safety of Cobimetinib Plus Atezolizumab Versus Pembrolizumab in Patients With Previously Untreated</td>
<td>Roche Products Pty Ltd</td>
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<tr>
<td>Dr Suresh Varma</td>
<td>Medical Oncology</td>
<td>PEARL – A randomised phase 3 trial of Palliative Care Early in Advanced Lung Cancers</td>
<td>University of Sydney</td>
</tr>
<tr>
<td>Dr Abhishek Joshi</td>
<td>Medical Oncology</td>
<td>A Phase II, Open-Labelled, Single Arm Study to Evaluate the Safety and Tolerability of Pembrolizumab in Participants with Recurrent or Metastatic Cutaneous Squamous Cell Carcinoma.</td>
<td>Merck Sharpe Dohme (Australia) Pty Limited</td>
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<tr>
<td>Dr Abhishek Joshi</td>
<td>Medical Oncology</td>
<td>NABNEC: A Randomised Phase II Study Of nab-paclitaxel In Combination with Carboplatin as First Line Treatment Of Gastrointestinal Neuroendocrine Carcinomas</td>
<td>National Health and Medical Research Council &amp; Australasian Gastro-Intestinal Trials Group</td>
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<tr>
<td>Investigators</td>
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<tr>
<td>Dr Abhishek Joshi</td>
<td>Medical Oncology</td>
<td>Phase 2, Open-Label, Randomized Study to Evaluate the Efficacy and Safety of GS-5745 Combined with Nivolumab versus Nivolumab Alone in Subjects with Unresectable or Recurrent Gastric or Gastroesophageal Junction Adenocarcinoma</td>
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<td>A Phase 1 Dose Escalation and Phase 2 Randomized Double-Blind Study of Veliparib in Combination with Carboplatin and Etoposide as a Therapy of Treatment-Naïve Extensive Stage Disease Small Cell Lung Cancer.</td>
<td>Abbvie Pty Ltd</td>
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<tr>
<td>Dr Abhishek Joshi</td>
<td>Medical Oncology</td>
<td>A Phase 2 Study of MM-121 in Combination With Docetaxel versus Docetaxel Alone in Patients with Heregulin Positive, Locally Advanced or Metastatic Non-Small Cell Lung Cancer</td>
<td>Parexel International Pty Ltd</td>
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<tr>
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<td>A Phase 3, Randomized, Double-Blind Study of Pembrolizumab plus Ipilimumab vs Pembrolizumab plus Placebo in Previously Untreated, Stage IV, Metastatic Non-small Cell Lung Cancer Subjects Whose Tumors are PD-L1 Positive (TPS ≥ 50%) (KEYNOTE-598)</td>
<td>Mercke Sharp &amp; Dohme Corp</td>
</tr>
<tr>
<td>Dr Zulfiquer Otty</td>
<td>Medical Oncology</td>
<td>An Open Label, Randomized, Two Arm Phase III Study of Nivolumab in Combination with Ipilimumab versus Extreme Study Regimen (cetuximab + cisplatin/carboplatin + fluorouracil) as First Line Therapy in Recurrent or Metastatic Squamous Cell Carcinoma of the Head and Neck (SCCHN)</td>
<td>Bristol-Myers Squib Australia Pty Ltd</td>
</tr>
<tr>
<td>Dr Georgina Hodges</td>
<td>Medical Oncology</td>
<td>A Multicentre single arm study of carfilzomib-thalidomide-dexamethasone (CarTD) for newly diagnosed transplant-eligible multiple myeloma (MM) patient’s refractory to initial bortezomib-based induction therapy</td>
<td>Australian Leukaemia &amp; Lymphoma Group (ALLG)</td>
</tr>
<tr>
<td>Ms Helen Wright</td>
<td>Medical Oncology</td>
<td>Genomics in oncology nursing practice</td>
<td></td>
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<tr>
<td>Mrs Amy Brown</td>
<td>Radiation Oncology</td>
<td>Health Technology Assessment of the Clarity Autoscan system: Motion correction and margin reduction in the radiation therapy treatment of prostate cancer</td>
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<tr>
<td>Investigators</td>
<td>Department</td>
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<tr>
<td>Ms Kylie Robbie</td>
<td>Radiation Oncology</td>
<td>A randomised comparison of StrataXRT to standard clinical practice in the prevention and treatment of radiation dermatitis</td>
<td>Stratpharma</td>
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<tr>
<td>Alex Ngoo</td>
<td>Radiation Oncology</td>
<td>Human papilloma virus positive squamous cell carcinoma of the Oropharynx: An analysis of Clinical Outcomes following Definitive Radiation +/- Chemotherapy in an Elderly Population</td>
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<tr>
<td>Dr Sean Brennan</td>
<td>Radiation Oncology</td>
<td>A Phase II study of local therapy only (stereotactic radiosurgery and/or surgery) for treatment of up to 5 brain metastases from HER2 positive Breast Cancer</td>
<td>Trans-Tasman Radiation Oncology Group (TROG)</td>
</tr>
<tr>
<td>Dr Catherine Wilkinson</td>
<td>Nephrology</td>
<td>Effect of low dialysate sodium on interdialytic weight gain (IDWG) and hypertension in patients undergoing chronic intermittent haemodialysis – a prospective study in The Townsville Hospital and the North Ward haemodialysis units</td>
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<tr>
<td>Dr Richard White</td>
<td>Neurology</td>
<td>Latitudinal Differences of the Prevalence of Inflammatory Neuropathies in Australia</td>
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<tr>
<td>Dr Valli Manickham</td>
<td>Renal</td>
<td>Reducing the burden of dialysis Catheter Complications: A National approach</td>
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<tr>
<td>A/Prof Muriel Soden</td>
<td>Rheumatology</td>
<td>Retrospective study of prevalence and Type of Infection in Patients with SLE related nephritis and those with non-renal SLE</td>
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<tr>
<td>Dr Matthew Terrill</td>
<td>Rheumatology</td>
<td>Defining the impact of topical non-steroidal anti-inflammatory drugs on renal function, a survey of Australasian Renal and Rheumatology Specialists</td>
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<tr>
<td>Prof Sarah Larkins</td>
<td></td>
<td>Identifying the impact of patient costs on decisions about health care utilisation</td>
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<tr>
<td>Claire Hosie</td>
<td>Pharmacy</td>
<td>On the Dot time-critical medication list</td>
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<tr>
<td>Dr Andrew Gosbell</td>
<td>Rural Hospitals and Emergency Medicine</td>
<td>Rural Regional Emergency Department and Hospital-Based Emergency Care Facility Profile Project</td>
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</tr>
</tbody>
</table>
The surgical service group maintained an excellent research profile in 2017, in both research and publications.

Key researchers within the Service group were Professor Jonathon Gollege, vascular surgeon, and Sonja Brennan, Ultrasonographer both of whom had significant output in terms of both publications and research.

Professor Golledge continues to lead a strong research team in vascular surgery generating multiple publications and driving national and international research collaborations in the area of vascular disease and a proliferation of other areas. Sonja also led a multidisciplinary research team, generating in excess of $40,000 in grants, to evaluate a novel ultrasound measurement to assess fetal renal development.

In 2017, the service group completed a number of Research Governance Office approved research projects in cardiology, general surgery, intensive care, medical imaging, neurosurgery, pain services, urology and vascular outpatients. It is encouraging to see the commitment of staff to generating new knowledge in their respective fields and fostering external interest in Townsville HHS. In addition, there was significant contribution by staff from a range of specialties to multiple publications.
ORIQL has strong collaborative ties with accomplished local researchers from James Cook University (JCU), Townsville HHS and the wider research community.

ORIQL's THHS collaboration in 2017 included an affiliation with Professor Damon Eisen and also Senior Researchers from the Stem Cell Laboratory, Andrew McCutchin and Natalie Stewart. Far reaching collaborations involve PhD Candidate and Orthopaedic Surgeon Dr Sergio Barrosa-Rosa from Spain, Dr Brent Matthews (Registrar Ortho, Adelaide) and Industry Partners such as DePuy Synthes, Stryker, Lima Orthopaedics and Corin Australia.

As a result of these partnerships, ORIQL possesses the expertise and research capacity in diverse, multi-disciplinary areas with the central goal of improving health outcomes for orthopaedic patients in North Queensland. QRIQL fosters relationships with both the Mater Townsville and Townsville Hospital and Health Services to provide teaching and research opportunities for junior Doctors and to share best practice with fellow clinicians.

Publications:


Collaboration with Orthopaedic Research Institute of QLD (ORIQL)

Orthopaedic Surgery

Research Team:
Research team for 2017 included a surgical fellow
Dr Rohit Kulkarni
Dr Genevive Graw
Dr Jodie Morris
Mrs Andrea Grant
Dr Jason Smith
Dr Tristan Simmonds, Medical student
Yassin Elsiwy
Sonja Brennan
Medical Imaging – Ultrasound Department

Consultant sonographer Sonja Brennan will analyse kidney development in utero to see what effects foetal growth may have on these organs in later life.

Sonia was drawn to the research through her special interest in foetal and neonatal ultrasound and is undertaking her PhD at James Cook University in this field. Her research is being supported by SERTA grants from THHS.

Sonia currently does a lot of work with babies both in utero and with pre-term babies after birth. Her research will look at the effects of both restricted and excessive foetal growth in utero on babies’ kidneys after birth. This will be compared to the kidney development of a baby who has had normal growth in the womb to see where the risks and anomalies are.

Sonja’s research involves around 60 babies and help find ways to minimise the chances of abnormal kidney development.

Abnormal kidney growth can lead to hypertension (high blood pressure) and chronic kidney disease in adulthood. The research she has undertaken will look at kidney development in-utero and aims to will have an impact on lifelong kidney health.

Publications:


Sonja Brennan
Research Team:
A/Prof Yoga Kandasamy - Primary Advisor & Associate Investigator
Dr David Watson - Secondary Advisor & Associate Investigator
Dr Donna Rudd - Secondary Advisor & Associate Investigator
A/Prof Michal Schneider - Secondary Advisor & Associate Investigator

Research Grants:
Grant Name: Australian Society for Ultrasound Medicine Research Grant 2018
Grant Application Title: The renal parenchyma – evaluation of a novel ultrasound measurement to assess fetal renal development
Grant Amount: $20,000

Grant Name: Australian Society for Ultrasound Medicine Research Grant 2018
Grant Application Title: The renal parenchyma – evaluation of a novel ultrasound measurement to assess fetal renal development
Grant Amount: $20,000
Professor Jonathan Golledge is Director of the Queensland Research Centre for Peripheral Vascular Disease (QRCPVD) and its pre-clinical arm The Vascular Biology Unit (VBU) at the College of Medicine and Dentistry, James Cook University and The Townsville Hospital.

His research commitment is illustrated by a large number of presentations at International and National meetings and publications in peer-reviewed journals, including a large number in top specialised journals.

Professor Golledge holds a conjoint position between the College of Medicine and Dentistry and Queensland Health, where he works as a vascular surgeon. In addition to providing a high quality clinical service his principal aspiration is to improve management of peripheral vascular diseases. The research impact of this is evidenced by external grant support from the NIH, National Health and Medical Research Council, Queensland Government, NHF and other bodies. Of note in 2010 Professor Golledge led a successful bid to establish a National Health and Medical Research Council funded centre of research excellence for Peripheral Vascular Disease.

Publications:


GOLLEDGE, J., HANKEY, G. J., ALMEIDA, O. P., FLICKER, L., NORMAN, P. E. & YEAP, B. B. 2017. Plasma free thyroxine in the upper quartile is associated with an increased incidence of major cardiovascular events in older men that do not have thyroid dysfunction according to conventional criteria. *International Journal of Cardiology*.


GOLLEDGE, J., ET AL. 2017. Reference Ranges for Thyroid-Stimulating Hormone and Free Thyroxine in Older Men: Results from the Health in Men Study. The Journals of Gerontology, Series A, *Biological Sciences and Medical Sciences*.


**What brought you to Townsville HHS?**

I started as a pharmacy assistant and was inspired to pursue pharmacy as a career.

- Stephen Perks, Pharmacist, Clinical Educator
Surgical Service Group Publications


24. FLAVELL, C., GORDON, S. & MARSHMAN,


38. SIDDIAH-SUBRAMANYA, M., NYANDOWE, M., ZUBAIR, O. 2017. Self-regulated learning: why is it important compared to traditional learning in medical education? *Advances in Medical Education and Practice*.


42. SIDDIAH-SUBRAMANYA, M., SMITH, S., LONIE, J. 2017. Mastery learning: how is it helpful? An analytical review. *Advances in Medical Education and Practice*.


## Surgical Service Group RGO Approved Research

<table>
<thead>
<tr>
<th>Investigators</th>
<th>Department</th>
<th>Grant Title</th>
<th>Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Ryan Schrale</td>
<td>Cardiology</td>
<td>Evaluating the efficacy and adherence of administration of a PCSK9 inhibitor Alirocumab in Aboriginal Participants with hyperCholesTerolaemia</td>
<td>South Australian Health and Medical Research Institute Limited (SAHMRI)</td>
</tr>
<tr>
<td>Dr Bobby John</td>
<td>Cardiology</td>
<td>Cardiac Resynchronisation therapy (CRT) and AV nodal ablation trial in Atrial Fibrillation</td>
<td>South Australian Health and Medical Research Institute Limited (SAHMRI)</td>
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<tr>
<td>Dr Gary Foo</td>
<td>General Surgery</td>
<td>Is Hyperbilirubinaemia a Useful Marker of Complication in Acute Diverticulitis?</td>
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<tr>
<td>Dr Alex Croese</td>
<td>General Surgery</td>
<td>Prevalence of Low Anterior Resection Syndrome in Patients Treated at The Townsville Hospital</td>
<td></td>
</tr>
<tr>
<td>Dr Soon Yee Teoh</td>
<td>Hyperbaric</td>
<td>Staged protocol to assess repeated hyperbaric exposures and glass ampoule safety</td>
<td></td>
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<tr>
<td>Dr Adam Holyoak</td>
<td>ICU and Pathology Queensland</td>
<td>Determination of Brown snake (Pseudonaja sp.) venom neutralisation following antivenom using ROTEM</td>
<td></td>
</tr>
<tr>
<td>Dr Sutrisno Gunawan</td>
<td>Intensive Care Unit</td>
<td>Diastology in Intensive Care (Diastolic–Diastolic Function in Critically Ill Shocked Patients in Australian ICUs</td>
<td></td>
</tr>
<tr>
<td>Miss Marnie Rawle</td>
<td>Medical Imaging</td>
<td>Do Queensland Health general radiographers use evidence-based practice when modifying current imaging acquisition techniques?</td>
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<tr>
<td>Mr Andrew Cartwright</td>
<td>Medical Imaging</td>
<td>Evaluation of a workforce model incorporating a trained assistant in Computed Tomography (CT)</td>
<td></td>
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<tr>
<td>Annette Cotter</td>
<td>Nuclear Medicine &amp; PET Medical Imaging Department</td>
<td>Diagnostic reference level of PET/CT studies in Australia</td>
<td></td>
</tr>
<tr>
<td>Investigators</td>
<td>Department</td>
<td>Grant Title</td>
<td>Funding Source</td>
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<tr>
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</tr>
<tr>
<td>Dr Maria Hennessy</td>
<td>Neurosurgical Unit and Surgical Ward 3</td>
<td>Improving mental health outcomes following mild to moderate traumatic brain injury</td>
<td></td>
</tr>
<tr>
<td>Mrs Alison Beeden</td>
<td>North Queensland Persistent Pain Management Service</td>
<td>Examining the effectiveness of The Pain Course in a regional hospital pain clinic setting</td>
<td>Allied Health Professions Office of Qld</td>
</tr>
<tr>
<td>Dr Matthew Bryant</td>
<td>North Queensland Persistent Pain Management Service</td>
<td>What are the barriers to Referral to a Pain Management Clinic for Indigenous People?</td>
<td></td>
</tr>
<tr>
<td>Dr Alexander Ngoo</td>
<td>Urology</td>
<td>A Prospective Randomised Trial Comparing the Bard Inlay Optima Stent with the Cook Universa Soft Ureteral Stents Using the Validated Ureteric Stent Symptom Questionnaire</td>
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</tr>
<tr>
<td>Prof Jonathan Golledge</td>
<td>Vascular Outpatients</td>
<td>VAP638-001: A Randomized, Double-Blind, Placebo-Controlled Study to Determine the Analgesic Efficacy, Safety and Tolerability of VPX638 Administered Topically on a Single Study Occasion, to Patients with Painful Wounds</td>
<td>Novotech (Australia) Pty Ltd</td>
</tr>
</tbody>
</table>

Goal for the future:
To be a part of the development of new research at Townsville HHS Emergency Department
- Nicole Chapman, Clinical Nurse - Emergency Department
In addition to our larger Service Groups, Townsville HHS researchers from other Service Groups and entities contribute substantially to our research profile.

Pathology Queensland encouraged a number of pathology staff to embark on novel projects of their own. Damian Juskiw, a medical scientist, is conducting a Haemokinesis trial for assessment of new technologies in blood transfusion testing. Ailie Ross, a senior haematology scientist, secured a $10,000 grant for studying the effects of severe trauma and associated therapies on fibrinolytic proteins. This research could lead to enhanced diagnostic testing for targeted therapies in the setting of trauma and sepsis.

The Mental Health Service Group is developing its research portfolio. Professor Brett McDermott, Professor of Psychiatry, has a joint appointment with JCU, and is tasked with enhancing research and education within the Mental Health Service Group. Professor McDermott’s research interests include mental health systems of care with a specific focus on individuals presenting with depression, PTSD and eating disorders. The Service Group has also shown their commitment to research with the recent appointment of Dr Jenny Kelly as the Senior Research Officer for the Service Group.

Professional Nursing and Midwifery Services and Research lead by Dr Wendy Smyth, until the recent appointment of the Professor of Nursing and Midwifery, Professor Cate Nagle, continues to support nurses and midwives throughout Townsville HHS to undertake research. Dr Smyth and Professor Nagle have a remit to ensure nursing and midwifery research at Townsville HHS is a leader in its field, for the benefit of our North Queensland population.

Research at Townsville HHS is not limited to clinicians with several staff from the Corporate Services undertaking research.
Other Townsville HHS Research Grants

<table>
<thead>
<tr>
<th>Investigators</th>
<th>Grant Title</th>
<th>Grant body/scheme</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ailie Ross</td>
<td>The effects of severe trauma and associated therapies on fibrinolytic proteins Protein C, Activated protein C and Antithrombin III</td>
<td>Study, Education, Research, Trust Account</td>
<td>$10,000</td>
</tr>
<tr>
<td>B McDermott, Z Sarnyai, R Phillips</td>
<td>Reducing suicide and promoting resilience among elite youth Rugby League athletes in North Queensland</td>
<td>Bishop Michael Putney Fellowship Grant</td>
<td>$105,000</td>
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</tbody>
</table>

Other Townsville HHS Publications


### Other Townsville HHS RGO Approved Research

<table>
<thead>
<tr>
<th>Investigators</th>
<th>Department</th>
<th>Grant Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Anna Brischetto</td>
<td>Microbiology</td>
<td>Assessment of the diagnostic utility of the syphilis polymerase chain reaction (PCR) test when compared with serology in primary syphilis</td>
</tr>
<tr>
<td>Dr Phillip Amoabeng</td>
<td>Microbiology</td>
<td>The utility of anaerobic blood cultures.</td>
</tr>
<tr>
<td>Dr Wendy Smyth</td>
<td>Professional Nursing and Midwifery Services and Research</td>
<td>Viewpoints of participants in the Townsville HHS Graduate Nurse/Midwife Program before and after significant changes to the educational content and structure</td>
</tr>
<tr>
<td>Dr Wendy Smyth</td>
<td>Professional Nursing and Midwifery Services and Research</td>
<td>Evaluation of the Clinical Partnership Program</td>
</tr>
<tr>
<td>Investigators</td>
<td>Department</td>
<td>Grant Title</td>
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<tr>
<td>------------------------</td>
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<tr>
<td>Alexandra Edelman</td>
<td>Townsville HHS Executive</td>
<td>The role of academic health centres in building equitable health systems: a multi-centre cross-country comparative case study</td>
</tr>
<tr>
<td>Mr Tim McNabb</td>
<td>Facilities, Infrastructure &amp; Support Services</td>
<td>Improving outpatient patient experience and reducing operational costs through the use of Internet of Things (IOT) technology</td>
</tr>
<tr>
<td>Dr Lynette Knowles</td>
<td>Townsville HHS Executive Medical Administration</td>
<td>Pilot Study: Can exit surveys inform junior doctor workforce trends?</td>
</tr>
<tr>
<td>Dr Peter Bristow</td>
<td>Townsville HHS Chief Executive Officer</td>
<td>PLUS: Patient Level Utilisation Study of a Tertiary Referral Hospital and Health Service</td>
</tr>
<tr>
<td>Dr Carolyn Ehrlich</td>
<td>Townsville HHS Corporate</td>
<td>Evaluation of Health Consumers Queensland Impact on Consumer Engagement</td>
</tr>
<tr>
<td>Mr Alan Taylor</td>
<td>Nursing, Medical and Allied Health</td>
<td>Sustainable Telehealth Services</td>
</tr>
<tr>
<td>Prof Andrew Burton-Jones</td>
<td>Townsville HHS Corporate – Program Management</td>
<td>Using electronic health/medical record systems effectively</td>
</tr>
<tr>
<td>Ms Louise Scanlan</td>
<td>Mental Health</td>
<td>Job satisfaction of mental health workers</td>
</tr>
<tr>
<td>Dr Elisabeth Hoehn</td>
<td>Child and Youth Mental Health Service</td>
<td>Mental Health Promotion and Prevention using SMS technology with fathers at risk of perinatal mental health difficulties and mothers with diagnosed perinatal mental illness - funding source Children’s Health Queensland</td>
</tr>
<tr>
<td>Dr Karen Hallam</td>
<td>Townsville Alcohol, Tobacco and Other Drug Youth Outreach Service</td>
<td>The Victorian and Queensland Youth Needs Census</td>
</tr>
<tr>
<td>Mr Hani Mikhail</td>
<td>Community Child and Youth Mental Health Service (CCYMHS)</td>
<td>Hair cortisol as a novel biomarker for mental illness in children</td>
</tr>
<tr>
<td>Dr Susan Cameron</td>
<td>Townsville Adolescent Inpatient Unit</td>
<td>Audit of metabolic monitoring in an adolescent in-patient population prescribed antipsychotic or mood stabilising medication.</td>
</tr>
</tbody>
</table>

**How did you come to Townsville HHS?**

I came to Townsville HHS because a rare, visionary opportunity was created for a Nurse Manager of Research in 2002.

- Dr Wendy Smyth, Nurse Researcher
Townsville Health Library
Bronia Renison, Library Director

The Townsville Health Library provides a range of services and resources to assist staff conducting or learning about research. Researchers are encouraged to consult with library staff as early as possible in the research design process.

Advice is provided on developing an effective strategy for searching the literature and identifying the best resources to meet individual research needs. Assistance with EndNote reference manager includes downloading citations, automatic in-text referencing and bibliographies, and changing the referencing style.

Library staff also assist researchers by supplying hard-to-find articles, reports and books. Advice is available on using journal impact factors and selecting the best publication outlet.

Library services are available online from work or from home: search for Townsville Health Library or QH libraries.