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Metro South Health Research Report 2016
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T1 – T4 Translation definitions

- T1: Innovation driven by clinical questions
- T2: Clinical Study
- T3: Clinical Trial
- T4: Clinical Practice
- T5: International adoption and assessment

https://www.tri.edu.au/translational-pathway

Centres for Health Research

The Centres for Health Research is the coordinating body for research at the Princess Alexandra Hospital (PAH). It also serves the rest of Metro South Health through the Metro South Health Human Research Ethics Committee (HREC).

We foster all forms of research across the PAH campus—from basic biomedical to translational, clinical, health service and population health research.

www.metrosouth.health.qld.gov.au

Acknowledgement of the traditional owners

Metro South Health acknowledges and pays respects to Aboriginal and Torres Strait Islander Elders, people, consumers and staff, past and present, on whose land we provide health services to all Queenslanders. We sincerely thank them for their ongoing generosity and willingness to work with and support our staff.
Welcome to the 2016 Princess Alexandra Hospital (PAH) Centres for Health Research Annual Research (CHR) Report, a celebration of achievement and progress in the quest to translate research advances into tangible patient benefits both locally and around the world.

The CHR encompasses more than 50 groups, engaged in leading research across the PAH campus and helping drive the evolution of healthcare globally.

Under the stewardship of Metro South Health and its Chairman, Mr Terry White AO, PAH has long been recognised as a leader in translational research, with a strong culture of collaboration between clinicians, scientists, university partners and industry.

That collaboration was on display at the 56th annual PAH Health Symposium, featuring an expanded program and increased attendance that began with the opening by Queensland Governor, the Hon. Paul De Jersey and Minister for Health and Ambulance Services the Hon. Cameron Dick, and was closed with a special session chaired by Dame Quentin Bryce.

Themed Healthcare in the Digital Age, the Symposium focused on current and future digital innovations benefitting research and clinical outcomes. The University of Washington’s Dr Thomas Payne shared his digital journey in his delivery of the Kurt Aaron Oration on the electronic medical record being a catalyst for quality improvement in patient care.

The theme was especially appropriate, given PAH’s status as the first large-scale digital hospital in Australia and many presenters utilised the learnings from the early months of the digital journey to inform their content.

PAH-based researchers continued their track record of success in securing National Health and Medical Research Council (NHMRC) and other competitive grants throughout 2016. These grants helped to drive innovation across a broad range of research areas, including orthopaedics, dermatology, cardiology and more.

Our partnerships with the Translational Research Institute (TRI) and Brisbane Diamantina Health Partners, both located on the PAH campus, are born from a shared desire to innovate. This collaborative approach to healthcare is critical for the CHR to continue to develop into a global exemplar of medical innovation, both now and in the future.

Dr Stephen Ayre
Executive Director
PAH-QEII Health Network
Message from Chair Research

Princess Alexandra Hospital (PAH) Centres for Health Research (CHR) continued to build on the foundations established in previous years, strengthening ongoing partnerships and expanding the portfolio of research projects.

During 2016, the Centres for Health Research was able to implement a number of significant initiatives that enhance research capacity and capability within Metro South Health (MSH), with direction from Executive and support from the MSH Study Education and Research Trust Account (SERTA) Committee, including:

- Transition of the Leukaemia and Lymphoma Tissue Bank from Pathology Queensland to MSH—an initiative that will not only sustain a valued resource for researchers but also position the PAH for future developments in personalised and precision medicine.

- Extension of Biostatistical Support from a half-time service to full-time—increasing the availability of this important service to researchers.

I would also like to acknowledge notable achievements made by researchers across the PAH and MSH community in 2016, including:

**National Health and Medical Research Council (NHMRC) grant recipients:**

- A/Prof Tarl Prow, four-year NHMRC Project Grant commencing in 2016 – Micromedial device development, NHMRC Career Development Fellowship.

- Dr Helen Benham, Implementation of a treat-to-target remission strategy for rheumatoid arthritis in Australian public and private rheumatology clinics, NHMRC Translating Research into Practice Fellowship.

- Distinguished Professor Judith Clements, Defining the potential of the kallikrein proteases as therapeutic targets in prostate and ovarian cancer, NHMRC Research Fellowship.

- Prof H. Peter Soyer, Centre of Research Excellence for the Study of Naevi, NHMRC Centres of Research Excellence.

- A/Prof Dan Siskind, Cardiometabolic Health of People with Severe and Persistent Mental Illness, NHMRC Early Career Fellowship.

- Prof Colleen Nelson, Targeting a master regulator of tumour cell plasticity as a new adjuvant therapy for prostate cancer, NHMRC Project Grant.

- Dr Tavis Read, Evaluation of current loco-regional therapies, implementation of novel immunotherapies and rationalization of treatment strategies to improve the outcomes of patients with in transit melanoma, Junior Doctor Research Fellowship.

**Australian Research Council Grants:**

- Dr Michelle Hill, Cell Biology: This project aims to improve our understanding of cell-to-cell communication.

- Dr Michelle Hill, Microbiology: This project aims to develop methods to detect and characterise bioactive molecules released by skin microbes, and a novel microspectroscopy method for rapid taxonomic identification.

- Prof Dietmar W Hutmacher, Biomedical: ARC Training Centre in Additive Biomanufacturing.

On behalf of the CHR, I am delighted to present this 19th Annual Research Report. We continue to go from strength to strength and we look forward to continuing that journey in partnership with our academic, research and healthcare partners.

**Professor Ken Ho**
Chair
Centres for Health Research
SECTION 1
Key Achievements
PAH research generates evidence-based public policy

This year, research conducted by clinician-researchers from Princess Alexandra Hospital (PAH) resulted in the Queensland Government lowering the Emergency Access Target from 90 per cent to a target of greater than 80 per cent.

The large-scale retrospective observational study covered four years’ worth of data from 59 Australian hospitals and 12.5 million emergency admissions to explore the relationship between the National Emergency Access Target (NEAT) and important patient outcomes.

The researchers found that there was a highly significant, inverse relationship between in-hospital mortality and the total NEAT compliance rate. However, this relationship was lost once the total NEAT compliance rate rose above 80 to 85 per cent.

As a result of the findings, from 1 July 2016 the Queensland Government lowered the target from 90 per cent to a target of greater than 80 per cent.

Co-author of the research and PAH Deputy Director Emergency Medicine, Dr Andrew Staib, said it was significant for the government to use scientific research to create evidence-based public policy.

“The research we conducted and the resulting change to public policy has put a greater focus on the quality of patient care and patient outcomes, over purely just those process measures about speed,” Dr Staib said.

“It has helped us bring the patient back to the centre of the whole process as opposed to just meeting targets.”

During the study, PAH also undertook a clinical redesign and introduced a number of measures to monitor patient flow and patient outcomes in a bid to monitor and meet the target also known as the ‘four-hour rule’ and improve patient care.

The study has informed target changes in other jurisdictions and is in the process of being replicated internationally.
PAH professor receives first HSRAANZ Impact Award

In 2016, Associate Professor Dr Ian Scott, Director of the Department of Internal Medicine and Clinical Epidemiology at Princess Alexandra Hospital (PAH), became the first person to receive the Health Services Research Association of Australia and New Zealand (HSRAANZ) Impact Award.

The new award was given in recognition of health services research that had a significant impact on health and healthcare and to promote examples of outstanding research that had been successfully translated into health policy, management, or clinical practice.

A/Prof Scott was the lead clinician and investigator for several major programs aimed at maximising the value of healthcare, including implementing a reform program which raised NEAT four-hour compliance rates from 32 per cent to 62 per cent over nine months.

His department at PAH also designed and implemented an integrated end-of-life care program, which incorporated advanced care planning for patients with limited prognosis and involved all hospitals, residential aged care facilities, and general practices in Metro South Hospital and Health Service (MSHHS).

In 2015, he published a sentinel paper in Australian Health Review that detailed 10 clinician-led strategies for maximising value in healthcare, with particular focus on hospital care. This featured prominently in a Productivity Commission report later that year and was endorsed by the Australian Medical Association.

In accepting this award, A/Prof Scott acknowledged the many far-sighted and committed teams that he had worked with across MSHHS in advancing these initiatives in improving care.

“This work is of increasing importance, in ensuring our healthcare system continues to deliver high-quality care within an increasingly constrained budgetary environment,” he said.
SECTION 2
Research Performance 2016
While the Princess Alexandra Hospital (PAH) has been recognised in key areas of research and clinical services over a period of decades, research endeavours over the past five years have shown a substantial development. In 2016:

- Research publications attributed to PAH increased to 604 – a 287 per cent increase in publications over five years;
- Authorised research projects increased to 332 – an increase of more than 340 per cent since 2012;
- Direct research expenditure was in excess of $18 million, excluding in-kind and other indirect expenditure support for research.

### Research publications

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<th>Year</th>
<th>Publications</th>
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<td>2012</td>
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<tr>
<td>2015</td>
<td>504</td>
</tr>
<tr>
<td>2016</td>
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### Number of research studies authorised

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<th>Year</th>
<th>Number of Projects</th>
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<td>214</td>
</tr>
<tr>
<td>2015</td>
<td>345</td>
</tr>
<tr>
<td>2016</td>
<td>332</td>
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Research expenditure 2016

- Joint business/government organisations (e.g. CRCs) $101,395
- Other Australian locations $69,391
- Other Qld Government department $136,100
- Overseas locations $1,326,171
- Private non-profit organisation $707,117
- Universities $913,686
- Capital (Government bodies and statutory authorities) $412,819
- Government bodies and statutory authorities $7,127,040
- Department $143,005
- Business $5,078,399
- Australian Government $291,912
SECTION 3

Committee Reports
PAH Research Council 2016

The Princess Alexandra Hospital (PAH) Research Council was established in 2015 as the peak body that provides strategic advice and makes recommendations to the Executive Director in placing research as an integral part of healthcare planning and delivery. The Research Committee continues to function operationally to oversee the administration of peer review grant support. The Council ensures that congruence is achieved between clinical, corporate and research governance to achieve the **Strategic Vision** that *the integration of research into delivery of clinical services is a key driver of the PAH’s leadership in healthcare.* The core objectives of the Research Council are to identify and prioritise strategic research goals and develop policies that bring excellence in healthcare for the organisation.

Working with the Research Committee advising on operational matters, the Research Council’s recommendations to strengthen research capability and capacity has seen some significant achievements including:

- establishment of a Research Support Coordinator position
- expansion of the Biostatistical Support Service
- development of plans for a one-stop shop for supporting clinical translation research
- consolidation of grant funding through the PA Research Support Scheme for career development and projects
- initiation of plans to streamline and manage the conduct of clinical trials
- development of a governance and operational structure for biobanking
- integration of research into electronic health records
- strengthening of partnership with the Translational Research Institute (TRI)
- delivery of the most successful Annual Health Symposium which received an Australia Day Achievement Award.

**Membership:**

Membership is drawn from the PAH clinical divisions, Metro South Health, the Translational Research Institute, PA Research Foundation, affiliated universities and appropriate external advisor(s).

- Professor Ken Ho, Co-Chair
- Dr Michael Cleary, Co-Chair
- Dr Stephen Ayre, Executive Director PAH-QEII Hospital Network
- Alister Whitta, Chief Finance Officer
- Dr Judy Flores, Division of Medicine
- Associate Professor Benedict Panizza, Division of Surgery
- Associate Professor Euan Walpole, Division of Cancer
- Kathy Grudzinskas, Division of Allied Health
- Veronica Casey, Division of Nursing
- Dr Timothy Geraghty, Division of Rehabilitation
- Dr Richard Ashby, Metro South Chief Executive Officer
- Professor Carolyn Mountford, TRI, Executive Director
- Damian Topp, Director, PA Research Foundation
Research Committee Report 2016

The Research Committee continued its long-standing efforts to promote research excellence and foster research collaborations, and provided support for Research Council through its focus on the operational elements of research support and development. The establishment in 2016 of the Research Council as the peak strategic and oversight committee for research in Metro South Health (MSH), has enabled the Research Committee to renew its focus on practical research support and development activities. The Committee is represented by clinical and non-clinical divisions of the PAH (medical, nursing and allied health), the Metro South Human Research Ethics Committee, UQ School of Medicine, The University of Queensland Diamantina Institute, and Queensland University of Technology (QUT).

The Research Committee maintained oversight and support of the Metro South Health Research Support Scheme during 2016 and initiated a number of developments to streamline processes for research grant recipients. The Committee formally broadened the scope of the Research Support Scheme, to include all MSH facilities and services, as well as partner organisations. In addition, the Committee endorsed a new reporting framework, which reinforces existing compliance frameworks and reduces double-reporting for grant recipients. The Committee’s work enabled the allocation of almost $2 million in research grants (provided by the MSH Study, Education and Research Trust Account (SERTA); and the PA Research Foundation).

The Committee also built on its previous work in support of research. Following consideration and endorsement by the Committee, PAH Executive approved the establishment of a permanent position to coordinate research support and grants administration functions. This position will enable further development of the functions previously undertaken by the temporary grants administration officer (funded by the Private Practice Trust Fund / SERTA).

Research Committee Members 2016:
- Dr Nigel Brown
- Dr Michael Cleary
- Mr Paul Dall’Alba
- A/Prof Carmel Hawley
- Dr Ingrid Hickman
- Prof Ken Ho
- Prof Gerald Holtmann
- Prof Sandro Porceddu
- A/Prof Richard Roylance
- Prof Michael Schuetz
- Prof H. Peter Soyer
- Prof Michael Stowasser
- Mr Damian Topp
- Dr Ian Vela
- Dr Rachel Walker
- A/Prof Euan Walpole
- Prof Elizabeth Ward
Human Research Ethics Committee Report 2016

The Metro South Human Research Ethics Committee (MS HREC), established and administered within the PAH Centres for Health Research (CHR), reviews the ethical and scientific validity of proposed research protocols for compliance with endorsed national standards and guidelines across Metro South Health (MSH). The MS HREC continues to participate in the national approach for the single ethical review of multicentre studies with Queensland, New South Wales, South Australia and Victoria.

In 2016, the Committee saw an increase of 17 per cent in applications from the previous year, with 444 applications received. Increased volume of applications was consistent across the three levels of ethical review, namely exemption, low-risk and standard-risk application.

After several years of consultation and design, the NHMRC released their new version of the Human Research Ethics Application (HREA) form in November 2016. The HREA, which has replaced the National Ethics Application form (NEAF), will serve as a concise application to facilitate effective ethics review for research involving humans.

Committee members and Ethics Secretariat staff maintained a commitment to ongoing professional development and attended a range of training and education forums including: Monash Intensive Ethics Course; and the bi-annual AEN Conference.

The HREC Secretariat also coordinated two large-scale training activities in 2016. The first event ‘Lifecycle of a Research Application’ was held in February 2016. A full agenda comprising presentations from both the Chair and Deputy Chair and Centres for Health research staff attracted over a hundred participants. Various elements of the ethical review and research governance processes were covered; the intention being to provide researchers with a holistic overview of the functions. A further training activity, effectively mirroring February’s event, was held in July 2016. Again, it was well-received with over 40 participants attending.
### List of HREC Membership

- **A/Prof Richard Roylance**, HREC Chair
- **A/Prof Scott Campbell**, Chair of Low Risk Review Panel, HREC Deputy Chair
- **Dr Liz McCaffrey**, HREC Deputy Chair

**Lay Members:**
- Mr John Buswell
- Dr Paul Spurling
- Mrs Beverley Kurkowski
- Ms Mabel Tsui

**Professional Care Members:**
- Ms Sarah Stirling
- Ms C J Cabilan
- Ms Lisette Knight
- Dr Mary Boyde
- Dr Jenny Jones
- Mr Kelly Perkins
- Dr Adam La Caze

**Pastoral Care Members:**
- Mr Bruce Monley
- Dr Trevor Jordan
- Aunty Betty McGrady
- Mrs Florence Spurling

**Lawyer Members**
- Ms Susan Gardiner
- Mr John Bennett

**Researcher Members:**
- Professor Rick Jackson
- A/Prof Amanda Wheeler
- Dr Peter Mollee
- Dr Nikola Stepanov

In 2016 two long-term Metro South HREC members resigned from the Committee:
- Associate Professor Gail Robinson whose thorough approach to her reviewing responsibilities was well-appreciated, as was her extensive knowledge of mental health matters.
- Professor Amanda Wheeler, herself a strong contributor to ethical deliberations since her appointment in March 2009.

The institution sincerely appreciates all former members for their contributions, warmly welcomes the new members, and thanks all current members for their hard work and dedication, without which research could not be conducted within MSH.
Our Mission:  
To bring research to life

Our Vision:  
To prevent and cure disease

The PA Research Foundation funds lifesaving research aimed at developing better diagnoses, treatments and preventions for some of Australia’s biggest health challenges. The Foundation is fortunate to receive donations from the general public, the business community, bequests, Princess Alexandra Hospital (PAH) staff, and from the thousands of patients and their families who have benefited from the medical treatment provided by the PAH.

The Foundation supports PAH-based researchers from Queensland Health, the University of Queensland, Queensland University of Technology, Griffith University and the Mater Medical Research Institute. Researchers are at the forefront of discoveries across all health and medical research disciplines including medical, nursing, allied health and basic research.

The Foundation is a statutory authority established in 1984 to raise funds for health and medical research at the PAH. The Foundation is managed by the CEO and an independent board of directors composed of local business leaders and the medical community.

The Foundation aims to support the significant health and medical research advances being made at the PAH. Since the opening of the Translational Research Institute (TRI) on the PAH campus, research performed by PAH-based scientists and clinical researchers has been moved to the forefront of health research in Queensland and the world. The PA Research Foundation is excited to continue promoting the PAH campus as a premier site for clinical research and an internationally acclaimed academic health research centre, enhancing interdisciplinary collaborations between clinical researchers and basic scientists.

The Foundation’s contribution to research on the campus continues to increase with $1.4 million contributed to research projects compared to $1.3 million last year. We again had a number of researchers funded by the Foundation progress to see their projects approved for ongoing NHMRC and ARC research grant support, confirming our position as a vital support mechanism for promising early stage medical research. This includes projects such as a new colonoscopy tool for collecting clinical samples, and the extension of a trial for a new test for primary aldosteronism.

To each of our donors, thank you for your continued contribution to the great work and achievements of our research community. To our growing team of corporate partners and sponsors, thank you on behalf of the Foundation for your participation in our community fundraising activities.

Mr Robert Bowen  
Chairman  
PA Research Foundation