





### New hope for patients with chronic lung disease

Ground-breaking stem cell therapy research at The Prince Charles Hospital has the potential to change the lives of people affected by chronic lung disease.

The Queensland Lung Transplant Service's Head of Research Associate Professor Daniel Chambers said he is hoping the research will not only extend the survival rates of the many Australians who have had a lung transplant, but also ultimately transform the quality of life for people with any lung disease.

"Chronic lung conditions are debilitating and ultimately fatal with many patients needing a lung transplant in the long term," Associate Professor Chambers said.

"We are investigating the role of stem cell therapy for targeted lung conditions to identify new ways to assist in the long term management of patients with currently incurable conditions."

The team is also investigating the role of stem cell therapy in the prevention of chronic rejection after a lung transplant.

"This is good news for transplant patients given chronic rejection is the biggest risk to their survival," Associate Professor Chambers said.

The research team has already conducted multiple world-first trials to evaluate the feasibility and safety of intravenous stem cell and T-cell therapy in lung fibrosis, pulmonary hypertension, lung transplant rejection, drug-refractory viral infection and related malignancies.

Patient Matt Meyers has experienced the benefits of the research first hand. After receiving a life-saving heart-lung-liver transplant for cystic fibrosis, Matt was unable to recover when he developed post-transplant lymphoma which was unresponsive to conventional chemotherapy.

The research team stepped in and were able to obtain compassionate access to a third party T-cell product they are developing in collaboration with QIMR-Berghofer and a corporate partner. After receiving this ground-breaking treatment, Matt recovered to return home and enjoy life.

With the support of Metro North and the University of Queensland, Associate Professor Chambers is establishing an Australian-first Centre for Lung Regeneration, where stem cell science can be translated into the clinic. The Centre will be the largest of its kind in the world.

Matt Meyers and Associate Professor Daniel Chambers.





### Researchers at the forefront of innovations in health care

Metro North is proud of the vibrant research culture that exists across all its health services.

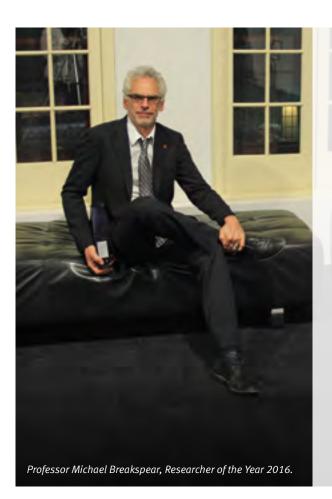
Our researchers are among the best in the world. Their work is helping to not only advance patient care, but also provides a glimpse into the next generation of treatments that have the potential to make a difference to people's lives the world over.

To celebrate the depth and breadth of this quality work, Metro North hosted its inaugural Research Excellence Awards in May 2016.

Professor Michael Breakspear, known internationally for his research in the application of brain network theory to understand psychiatric disorders, was named Researcher of the Year for his work on non-invasive technologies to unravel the mysteries of the brain.

His ground-breaking research will help address some of our biggest mental health challenges such as depression, bipolar disorder and dementia.

The Researcher of the Year was decided from winners of the seven Research Excellence Award categories.



Metro North has a strong research culture, with multidisciplinary research programs undertaken across medical, nursing, allied health streams.

The Board and Executive strongly support enhancing our research capability across Metro North as part of the Health Service Strategy 2015–2020 and this aligns with Queensland Government objectives outlined in the Queensland Science and Research Priorities.

Research at Metro North relies on vital support from our funding partners, including The Prince Charles Hospital Foundation and RBWH Foundation.

Metro North is currently engaged in 718 active studies, with a value of approximately \$70 million, of which 211 new studies commenced in 2015-16.

The financial investment in these 211 new studies is in excess of \$40 million, comprising:

- Metro North-funded clinical and research staff (Metro North has approximately 1,700 staff who are identified as contributing to our R&D programs in various full and part-time capacities)
- \$22m through agreements with Queensland and interstate universities
- \$7m through National Health and Medical Research Council funding, and
- \$8m in commercially sponsored clinical trials.



Professor Louise Cullen and the Emergency Cardiology Research Group at the Royal Brisbane and Women's Hospital.





### Ground-breaking RESEARCH

into cardiac emergencies has led to quicker treatment for less urgent cases, diverting doctors and resources to help patients most in need Throughout Metro North, there are hundreds of researchers working hard each day to improve health outcomes. World class ground-breaking research is occurring in our laboratories, clinics and at the bedside, with the vision to translate knowledge into practical gains for patient care.

We know the most pressing health care problems today call for a multidisciplinary approach, working together across professions and specialities for the greatest benefit.

Research partners co-located on our campuses are an important part of ensuring research activity involves state of the art technologies and adds value to the range of highly specialised services we proudly deliver across the Hospital and Health Service.



An Australian-first research initiative is changing the way patients who present to an Emergency Department (ED) with chest pain are managed and treated.

The initiative, known as the ImpACT protocol, is an accelerated assessment strategy for patients who present to the ED with chest pain. It has been implemented by the Emergency Cardiology Research Group at the Royal Brisbane and Women's Hospital, led by Professors Louise Cullen (ED) and William Parsonage (Cardiology).

Research on the ImpACT protocol has been undertaken in collaboration with health economists from the Australian Centre for Health Services innovation (AusHSI) at QUT. It is a safe and cost effective assessment strategy that reduces the length of stay for ED patients with chest pain, and subsequently creates additional capacity in the ED and broader hospital.

Professor Cullen said that, traditionally, patients who present to an ED with chest pain were assessed using clinical history, ECG and blood testing over six to 12 hours.

"They then go on to have further testing, usually with an exercise stress test. This can take up to 24 hours, requiring an overnight stay in hospital," she said.

"This research has led to a more efficient approach to assessing this patient group and a reduction in unnecessary exercise stress testing for patients at low risk of coronary artery disease.

"By reducing the length of the assessment process, more patients are able to be discharged from hospital on the day of presentation. This means getting the patient home sooner, and reducing pressure on the ED."

The study builds on previous work done by the group that has been the basis for the Accelerated Chest pain Risk Evaluation (ACRE) project, a state-wide clinical redesign initiative that has implemented improved models of care for patients with chest pain and possible heart attack in 19 Queensland hospitals. ACRE is estimated to be saving \$21 million per annum for Queensland Health.

Professor Parsonage said more than 80,000 patients present to Queensland EDs with chest pain each year.

"Chest pain has always been one of the most common reasons for admission to hospital medical wards," he said.

"The ACRE project has safely led to substantial improvement in hospital admission rates and length of stay across Queensland. The ImpACT protocol has the potential to build on these improvements by improving care for more patients."

### lan's story

Ian Gibbs is testament to the benefits of the ImpACT Protocol.

The 53-year-old Taigum resident recently presented to RBWH's Emergency Department after experiencing some sharp pains in his chest.

lan was quickly assessed by clinical staff and his first

blood test was taken to check for troponin, a protein that is released into the blood when there has been damage to the heart muscle.

"The staff told me they would be back within two hours to take some more blood," Ian said.

Not new to the hospital system, Ian previously had visited another Emergency Department in Adelaide with chest pain.

"Previously, I had to wait around six hours to have my second round of blood taken," he said.

"This extra waiting can cause quite a bit of anxiety. You naturally worry while you're waiting for results, particularly if you have a family history of heart disease like I do.

"At the Royal Brisbane and Women's Hospital, the nurses were back within two hours to take my blood. I was then sent on to the short stay unit and underwent a stress test," he said.

"Fortunately, everything was fine and I was told I could go home that day.

"The whole process happened quite quickly which was surprising, as I had expected an overnight stay," he said.

"It was different to what I had experienced before – certainly a lot better and quicker.

"This helped make me feel a lot calmer about the whole experience," Ian said.







# Proud to be the world's largest providers of simulated health care training

Simulation-based training has an important role in clinical education and to patient experience and outcomes.



Simulated trauma response and surgical scenarios are just some of the hands-on skills delivered by Queensland's world-leading Clinical Skills Development Service (CSDS).

The state of the art service based at Herston Health Precinct is one of the world's largest providers of simulated health care training, offering hundreds of courses each month to Queensland medical staff.

CSDS Director Dylan Campher said said the most popular is the blended-modular Advanced Life Support course. This course is delivered via online interactive eLearning and a short face to face component, using high tech simulation manikins to train more than 400 clinical staff per year.

"The training needed to be short, accessible and we needed to be able to ensure that our training was actually making every participant competent without a doubt," Mr Campher said.

"We modified the training to incorporate the necessary background and theory into a 1 hour online e-learning component, an interactive online portal that offers support for up to 12 months."

The training module is the first of its kind to be internationally recognised and licenced for delivery in Australia. Students complete an online course and then test their skills in person with the CSDS's simulation manikins.

Simulation Educator Davin Arthur said the manikins are programmed with life-like responses. Mr Arthur is one of a handful of Australian accredited simulation providers.

"You can feel the manikin's pulse, watch the chest rise and fall, and monitor all vital signs as you perform procedures," he said.

The Clinical Skills Development Service also offers simulated surgical training and other clinical procedures. It has 26 training rooms, laboratories, a fully functioning operating theatre and hospital wards, offering hundreds of training scenarios for doctors, nurses and allied health staff.

Director Dylan Campher said the CSDS's e-learning reduces the amount of time health staff spend travelling for education. The CSDS collaborates and partners with local hospitals throughout Queensland to establish Pocket Simulation Centres, offering a variety of locally grown and state-wide simulation courses.



#### Our staff matter

The annual Working for Queensland survey provides all Metro North staff with an opportunity to provide confidential feedback on a range of issues.

These views on what it's like to work for Metro North help us put ideas into action and build on the work being done as part of our Putting people first Strategy.

Positive workplace culture improves patient safety

#### 76%

76% of staff acknowledge that teamwork within units is strong

#### 72%

72% of staff agree that supervisor/manager expectations/actions promoting patient safety is positive

Safety Culture Survey 2015











# Projects drive health care innovation

Metro North is committed to a culture of innovation.

We recognise that staff, and our health care partners have great ideas to help improve outcomes for patients, through new processes, resources and partnerships.

Each year Metro North invests \$1 million in its LINK (Leading Innovation through Networking and Knowledge-sharing) fund.

LINK funding provides the opportunity to build partnership and community engagement capability, deliver efficiencies and improve continuity and quality of care for patients, consumers, carers and families.

In 2015–16, 11 projects were funded:

- GRACE GP Rapid Access to Consultative Expertise
- Lymphoedema Community Support Network
- Extended Eligible Private Midwife Practice
- Emergency Department projects
- Emergency Department Frequent Attendee Management
- "Switching On" Addressing High Psychosocial Needs in Caboolture
- MS Connect
- Private Public Kidney Partnership
- High Risk Foot
- Stoma Community Model of Care
- Cancer Care Services Web Portal







### GRACE – Right care in the right place

An innovative project implemented at The Prince Charles Hospital allows patients to access the care they need sooner, and reduce demand on the Emergency Department (ED).

GRACE – GP Rapid Access to Consultative Expertise – aims to reduce the number of General Practitioner (GP) referrals to the ED and promotes patients accessing the 'right care in the right place, the first time'.

The project has introduced a Hotline to provide GPs with direct access to internal medicine services, bypassing the ED.

The line is managed by members of the Internal Medicine team including a Clinical Nurse Consultant or Medical Registrar, supported by the on-call Consultant Physician.

The Hotline provides GPs with timely access to expertise regarding assessment, management and treatment of patients needing acute inpatient care.

TPCH Director of Internal Medicine Services, Dr Jeff Rowland said the Hotline has facilitated a range of more targeted care pathways outside of the ED including same day direct admission to the hospital's Rapid Assessment Medical and Surgical Unit (RAMS), and appointments in the Day Unit for Investigation and Therapy.

"Since the commencement of the project in March this year, it has been identified that TPCH's ED sees around 180 patients every week who have been referred by their GP.

"By working with ED staff, we have been able to identify suitable GP referred patients in triage who can be pulled safely into the RAMS Unit."

While still in its early stages, the GRACE project is bringing positive results.

Of the total number of calls received through the GRACE Hotline, 75 per cent of patients were able to avoid the ED and could be referred to more appropriate care options.

"Our aim is to work with GPs to increase the number of calls we receive," Dr Rowland said.

"We are working with our local community and GPs to ensure that their patients access the right care in a timely way.

"This improves the patient's experience in hospital and means they can access the care they need sooner," he said.

Managing the GRACE Hotline – Senior Medical Officer Dr Gurudev Kewalram and Project Officer Rosalee Trent.



### More than 7,000 lives

saved by organ transplants since 2009. Find out how to talk to your family about organ donation and more at www.donatelife.gov.au.

#### A leader in transplantation

The Prince Charles Hospital is internationally recognised for its excellence in heart and lung transplantation.

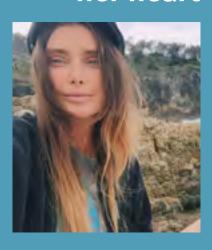
Surgeons Dr David McGiffin, founder of The Prince Charles Hospital's heart transplant service, and Dr Michael Gardner, made history in June 1990 when they performed Queensland's first heart transplant.

This milestone event has opened the door to hundreds of Queenslanders being given a second chance at life and led to many advancements in heart transplant care and research.

We express our gratitude to the donor families who, at the time of greatest grief, think of others and provide the gift of life that transplantation offers to a total stranger.

| Year    | Transplant | Number  |
|---------|------------|---|
| 2014-15 | Heart      | 10  |
|         | Lung       | <ul><li>24 in total</li><li>23 lung transplants and 1 heart-lung-liver transplant</li></ul> |
| 2015-16 | Heart      | 20  |
|         | Lung       | 38 in total 36 lung transplants and 2 heart-lung transplants                                |

# With every beat of her heart



### Bec Craven will always be grateful for a second chance at life.

The once healthy 26-year-old from the Gold Coast returned from a Bali holiday in November 2013 with a virus that attacked her heart.

She was admitted to The Prince Charles Hospital in June 2015, where she had surgery to implant a Ventricular Assist Device inside her chest – a machine that took over the functioning of the heart while she waited for a heart transplant.

Under the expert care of the Advanced Heart Failure and Cardiac Transplant Unit's team, Bec finally received a donor heart in early 2016.

Now well on the road to good health, she encourages more Australians to talk about becoming organ donors.

"I feel grateful and thankful that someone donated this gift. Without it, I wouldn't be here.

"I can now get back to enjoying and living life. I have a future," Bec said.

More than 7,000 lives have been saved by organ transplants since 2009. Find out how to talk to your family about organ donation and more at www.donatelife.gov.au.



Metro North Chief Executive Ken Whelan chats with staff during a Let's Talk Occupational Violence at Caboolture Hospital.

### Putting People First through 'Let's Talk' sessions

Metro North's Chief Executive recognises the importance of staff engagement through his regular 'Let's Talk' sessions.

In its first year, more than 70 initiatives have been launched to bring the *Putting People First* Strategy to life. This includes many projects run at a local hospital or service level including:

As part of a *Putting People First* initiative, Metro North has implemented "Let's Talk" sessions across its facilities.

Let's Talk Program coordinator Hazel Harden said Let's Talk gave staff at all levels the opportunity to share ideas in a safe environment where they can talk informally with one of our leaders.

"It's not about solving problems or making decisions, but a chance for staff to share what's important to them and ask questions they might otherwise not get the chance to ask," she said.

"It is also 'time out' for our leaders where they get to listen to staff and learn from their day to day experiences."

Since the first Let's Talk in October 2015, 13 sessions have provided more than 120 staff from across the Hospital and Health Service an opportunity to have a face to face conversation with Chief Executive Ken Whelan.

Another 200 staff have been involved in 21 Let's Talk Together Occupational Violence sessions. Feedback from these sessions is informing the development of an action plan to protect and support our staff from occupational violence.

#### Ideas into action

- New patient education materials at Redcliffe Hospital and interactive resources to support patients with chronic disease at home.
- Launch of the Intensive Care Unit Empathy Project at The Prince Charles Hospital to improve the patient experience for end of life care and long stays in the Intensive Care Unit
- Trial of a safe wards program in Mental Health to support staff to reduce conflict and contain aggressive behaviours
- New staff health and well-being programs at Caboolture Hospital and Community Indigenous and Subacute Services and the launch of an Employee Wellbeing Service at the Royal Brisbane and Women's Hospital.



# Where would we be without our volunteers?

Metro North is privileged to have the services of more than 500 volunteers across our facilities. This small army of men and women makes a huge difference in the lives of our staff, patients and visitors.

Each of them plays a vital role in improving the hospital experience by providing customer service, a friendly face, companionship and comfort to patients and their families, fulfil a number of administrative support roles and raise funds for additional hospital amenities.

We value our vollies! Our volunteers are an important part of our health care family.



Did someone say cheese? Our St John volunteers at Caboolture Hospital always have a smile on their dial.



Sharon and Nola are the first smiling faces visitors see when they visit our North Lakes centre on a Tuesday.



RBWH's 100 volunteers give more than 60,000 hours of their time each year! Myra, Barbara and Ros love greeting patients at the front desk and helping them on their way!



Charlie's Angels Sana and Bill add a little sunshine to the lives of our staff and patients.