



RESEARCH REVIEW 2018 2019





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**STRIVING FOR
SOMETHING GREATER**

MESSAGE FROM THE CEO



In writing this foreword, I am delighted to report that research across the St Vincent's Campus continues to go from strength to strength. Over the past twelve months, we embarked upon the implementation of one of the most important planning endeavours in our 160-year history, culminating in the launch of the St Vincent's Integrated Healthcare Campus Darlinghurst Clinical Services Strategy 2018-2017.

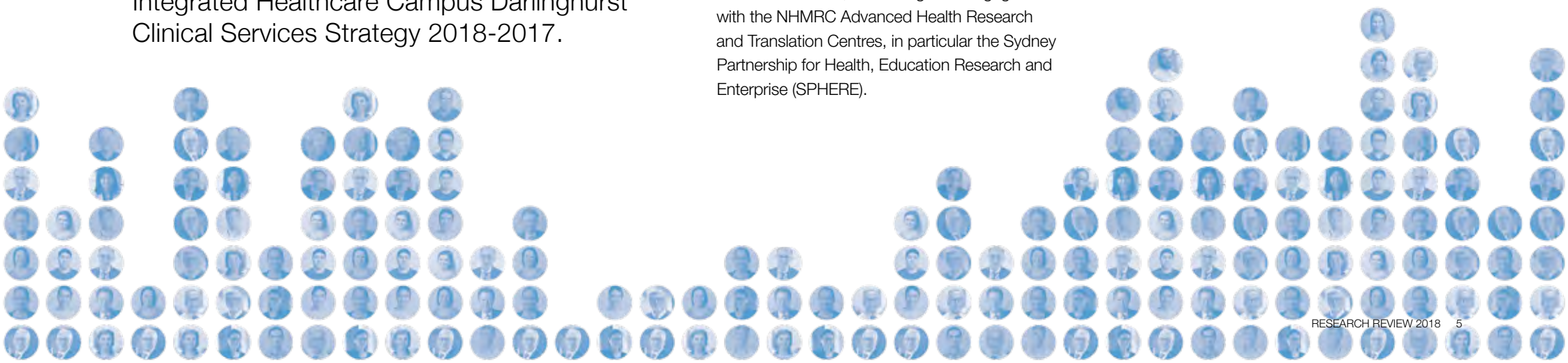
The Clinical Services Strategy sets out six strategic planning priorities, namely Precision Medicine, Ambulatory Models of Integrated Care, Telehealth and virtual care, the creation of Centres for Excellence, continue to advocate and deliver compassionate care and services to the Poor and Vulnerable and to develop more effective models of care which leverage the capabilities of our diverse campus.

I am excited to report that we are in the final stages of completing the St Vincent's Campus Research Strategic Plan 2019-2023 entitled 'transforming healthcare'. The Strategy aims to deliver internationally competitive research consistent with our Mission, envision2025 and the clinical services strategy 2018-2027 through four strategic themes: Research-Informed Healthcare; Remarkable People; Sustainability & Growth; Innovation.

I wish to acknowledge the important role our partners play in delivering our amazing research agenda. Partnerships and collaboration are key to the successful research not only with our campus partners including the Garvan Institute of Medical Research and Victor Chang Cardiac Research Institute, but through our engagement with the NHMRC Advanced Health Research and Translation Centres, in particular the Sydney Partnership for Health, Education Research and Enterprise (SPHERE).

Not surprisingly our foundation membership of SPHERE is reaping some terrific rewards for the Campus. SPHERE's translational fellowship is a new initiative aiming to support clinicians to work on issues that are relevant to their hospital networks with the goal of using the results of the project to improve patient outcomes through innovation or change to guidelines or policies.— Translational Research Fellowship was awarded to Dr Davinia Seah who will pursue her PhD while continuing to manage the community palliative care program at St Vincent's Hospital.

Furthermore, St Vincent's was awarded a \$50,000 SPHERE grant with the Nursing Research Institute. In a first for the St Vincent's Health Network Sydney, Clinical Nurse Consultant (CNC), Julie Gawthorne, has been awarded a twelve-month research internship with the Nursing Research Institute. The internship is jointly funded by the National Health and Medical Research Council accredited Sydney Partnership for Health, Education, Research and Enterprise (SPHERE), St Vincent's Hospital Sydney and St Vincent's Health Australia.



A major element of our research plan relates to clinical trials and our expectation that clinical trials will become part of the standard of care for our patients. Clinical trials are at the heart of our Precision Medicine agenda and already there is evidence that Telehealth through 'Tele-trials' may offer quantum leaps in access to cutting edge treatments years before they are available on the market.

We were therefore particularly proud when the St Vincent's Oncology Clinical Trials Unit won the NSW Premiers Award for best Cancer Clinical Trials Unit in the State. In providing the award, the Cancer Institute NSW acknowledged that St Vincent's has "brought together researchers and clinicians onto a single site, The Kinghorn Cancer Centre, fostering laboratory research directly driven by clinical challenges.

I have no doubt that our surge in clinical trials stems from our close interrelationship with our partners – and to a large degree, this is what our integrated Campus is all about. This integration is similarly exemplified by the recent opening of the Advanced Cardiac Imaging Centre at St Vincent's Hospital – a joint initiative of the St Vincent's Heart Lung Service and the Victor Chang Cardiac Research Institute.

The new Centre brings two powerful and complementary cardiac imaging techniques – CT and MRI – together in a single space for the first time in Australia, operated by cardiologists and a dedicated team of radiographers. The new CT scanner will allow St Vincent's to image the entire heart and its blood supply through the coronary arteries in a small fraction of a single heart-beat. The CT is also being used to diagnose diseases and to plan a raft of therapeutic procedures on the structure of the heart, such as replacing a heart valve without surgery.

The dedicated 3 Tesla cardiac MRI produces moving images of all the heart structures without any radiation of the patient, including alterations in the structure and texture of the muscular walls of the heart, while also permitting the most accurate measurements of blood flow through the chambers of the heart and also within the heart muscle.

Importantly, this Imaging Centre also provides enormous clinical research capacity as the Campus leads the way in better understanding the functioning of the heart.

Still on the subject of partnerships, we recently established Australia's first Prostate Cancer Research Alliance (PCRA) in collaboration with the Peter MacCallum Cancer Centre and the University of Melbourne - bringing together world-leading experts to focus on the most promising ways of predicting the risk of future progression of prostate cancer at the time of diagnosis, reducing the progression of prostate cancer and improving treatments for men with advanced forms of the disease.

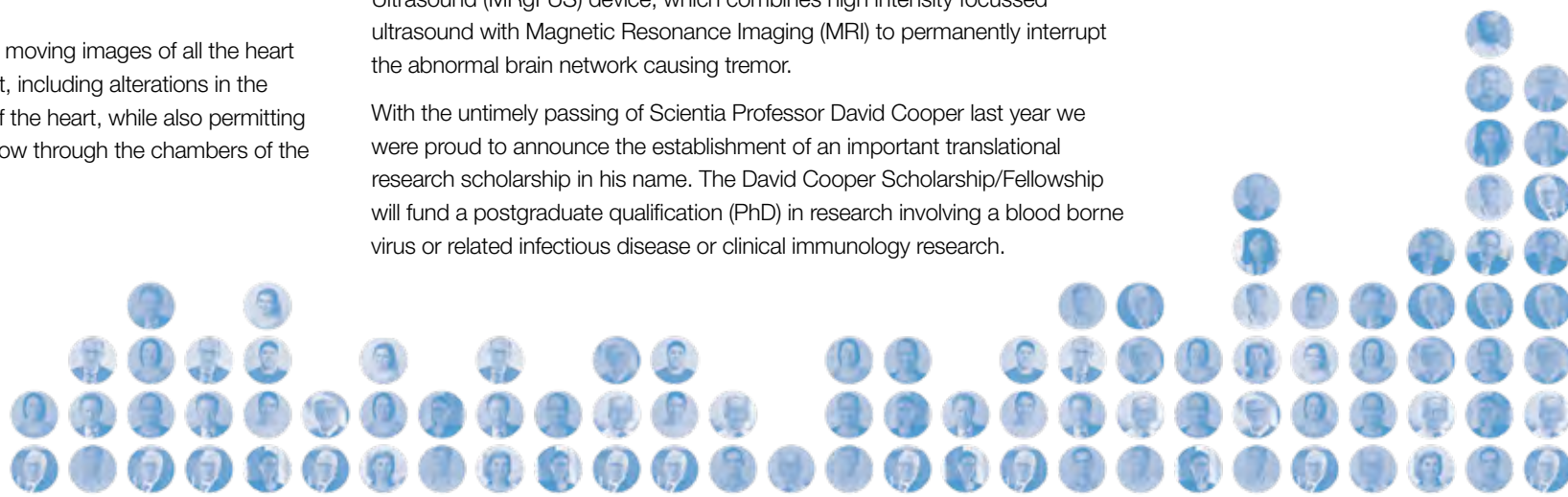
At St Vincent's specifically, \$5 million has been allocated to lead a randomised trial which looks at whether combining LuPSMA technology with hormone therapy drug enzalutamide will prolong the lives of men with metastatic prostate cancer.

The research program is managed by the Movember Foundation and co-governed by the foundation and Cancer Australia. It is hoped that the research findings could be incorporated into clinical practice as early as 2023.

Late last year we opened the MRI Guided Focused Ultrasound Unit, the first in the Southern Hemisphere. This new technology treats patients with neurological disorders such as essential tremor and Parkinson's disease without surgery, and with immediate results.

The incisionless treatment is rendering patients free of symptoms immediately after the non-invasive procedure. The combined neuroradiology, neurology and neurosurgery team use the newly acquired MR-guided Focussed Ultrasound (MRgFUS) device, which combines high intensity focussed ultrasound with Magnetic Resonance Imaging (MRI) to permanently interrupt the abnormal brain network causing tremor.

With the untimely passing of Scientia Professor David Cooper last year we were proud to announce the establishment of an important translational research scholarship in his name. The David Cooper Scholarship/Fellowship will fund a postgraduate qualification (PhD) in research involving a blood borne virus or related infectious disease or clinical immunology research.



David's contribution to translational research on the St Vincent's Campus cannot be underestimated, and the David Cooper Scholarship will go a long way to recognising his important legacy and extraordinary commitment to both his patient and the research projects he led in the fields of HIV, viral hepatitis and immunology.

While our research activities are thriving on Campus, it is important that we continue to ensure that we have the right infrastructure to support these endeavours. As you might recall, during our 2016-17 campus master planning, we identified West St as a priority building development to be progressed during the first four years of the Darlinghurst Redevelopment Program. In 2019, a Strategic Business Case was developed to articulate the case for change and anticipated benefits of the project.

It is envisaged the building will create a new hub of innovation and learning, bringing together researchers, industry partners, educators, students and support staff together on the research precinct. The West St building would include new purpose built research and education facilities, with improved technological capability, physical infrastructure and greater efficiencies; increasing potential for collaboration between existing research and education groups, research support, clinical trials staff and industry partners; and increasing capacity to grow research and clinical trial programs.

From our leadership role in precision medicine, to our growing research partnerships, through to our commitment to growing our research and teaching infrastructure; St Vincent's is well poised to build on our wonderful Campus legacy as a leader in translational research.

Associate Professor Anthony Schembri
CEO, St Vincent's Health Network Sydney



Dr Christine Shiner PhD



MESSAGE FROM THE DIRECTOR OF RESEARCH



2018 saw SVHNS continuing its productivity in terms of research outcomes (note on pubs etc). Much of the energy of the Research Directorate (and especially of Associate Professor Philip Cunningham), was devoted to developing the new Strategic Plan for Research for 2018-2023 (hotlink). This was launched in very early 2019. It builds on the previous 2013-2018 Plan and is framed in terms of the 10-year Clinical services Strategy and SVHA's "enVision 2025" document. It is important that our research enterprise be focussed on improving the delivery of our Mission as a provider of excellence in Healthcare and thus it needs to be consistent with these documents.

The Research Strategy for the next five years is outlined in some detail in terms of four strategic themes, namely "Research-informed Healthcare", "Remarkable People", "Sustainability and Growth" and "Innovation". I am confident we will deliver under all these categories and commend the document to you.

Major developments are underway in terms of how SVHA handles its research enterprise at a National level. Professor Erwin Loh was appointed at the beginning of 2019 as Group Chief Medical Officer & Group General Manager of Clinical Governance and has taken over direct oversight of the SVHA Research Portfolio. Erwin has created a new "St Vincent's Research Council" on which I sit along with Megan Robertson, my counterpart from St Vincent's Hospital Melbourne. This group will be tasked with integrating more closely, SVHA's various research efforts across Australia.

Returning to the Darlinghurst scene, it has been clear for some time, to anyone who takes a passing interest in our research at SVHNS that Clinical trials are a key element of how we deliver research. Our trials activity is growing rapidly particularly in early-phase trials of new therapeutic options for cancer, and at the same time, the national Clinical Trials environment is changing in terms of the regulatory framework. With this in mind, the HCEO commissioned a formal external review of Clinical trials activity and Governance at SVHS in 2017-2018. The Research Directorate is working on implementation of the recommendations of

this report throughout 2019 and will be doing this in parallel with the introduction of the National Framework for Clinical Trials. We expect to see the full details and implications of this new scheme by the end of 2019.

The Research Office remains busy and performs extremely well in terms of the "metrics" of process times for applications for Ethics and Governance review. The staff of this important Office are the quiet achievers and enablers of so much of the research that happens in SVHS. They have been heavily consumed with the implementation of REGIS, the new Research Ethics and Governance IT platform introduced by NSW Health and many researchers will also have become aware of the various teething issues related to the implementation of REGIS.

The St Vincent's research campus is heavily involved in SPHERE, the Advanced Health, Research and Training partnership involving UNSW, UTS, WSU and their affiliated Hospitals and Medical research institutes. This partnership is starting to pay dividends in terms of Fellowships and similar awards to the campus and of course the networking and collaborations afforded by such a large group are proving a major source of growth.

Plans are well advanced for a Research and Education building on the West Street site. I hope this will move ahead in 2019-20 and when completed will provide a much-needed boost to our infrastructure for these important activities.

Professor Terry Campbell AM

Director of Research,
St Vincent's Health Network Sydney



MESSAGE FROM THE CHAIR RESEARCH EXECUTIVE COUNCIL

The Darlinghurst Research Precinct Council was delighted, through 2018, to see the Darlinghurst Campus grow in its mission of delivering hope through extraordinary research outcomes. These outcomes can and do lead to better health outcomes for all, even in the most complex and misunderstood areas of health care.

Sadly, during 2018 one of the greatest and finest proponents of the mission of research on the St Vincent's Darlinghurst Campus, David Cooper AO, passed away. David's life work with HIV epitomises the conquering of a terrifying and complex disease that was not understood or accepted by the community at large. His memory stands as a beacon to remind us of the purpose and mission of the research group on the campus and ultimately of the triumph of hope. Appropriately, The David Cooper Scholarship has been established. David will be missed, but long remembered.

Active and extraordinary research achievements continue on Campus, too many to list. There are a few notable highlights

- ♦ Dr Jenny Stevens (anaesthetics) and A/ Prof Steve Kerr (biostats) collaborated in high profile publication re postoperative oxycodone prescribing.
- ♦ NSW Premier's Award for Best Cancer Clinical Trials Unit given to St Vincent's Oncology Clinical Trials Group

The Research Council continues to be a forum that encourages cooperation and discussion across boundaries in research throughout the campus. and seeks to help gain greater Community awareness of our medical research on the campus. This is encouraged in a variety of grassroot ways including the succesful school awareness programs.

Mr Nick Curtis

Independent Chair, Research Executive Council





AMR ANNUAL SUMMARY



2018 has been an exceptional year. Translational research continues to evolve on the St Vincents Campus as we draw to a close our inaugural five (5) year

research strategic plan – ‘developing healthcare research’. We have proudly delivered a range of support platforms that encourage excellence in clinical and biomedical research throughout the organisation. St Vincent’s Centre for Applied Medical Research has matured and become the ‘mothership’ for research on the St Vincent’s Healthcare campus.

Our strategic plan described four key result areas being exceptional research remarkable people, sustainability and growth and mission and social justice research. Core to the delivery of these strategic areas was a reform of the governance for research activities across the Darlinghurst campus. The St Vincent’s Research Campus Executive Council has played a central role in bringing together Executive Directors of the St Vincent’s Public and Private Hospitals, Garvan Institute and Victor Chang Cardiac Research Institutes. The Council also provides the link to the Office of Health and Medical Research (OHMR) at NSW Ministry of Health as one of the eight designated Medical Research Hubs for NSW.

Core to the success of our research vision are the people behind it. This report profiles our research community who tirelessly devote their time and energy to ask and keep asking questions that lead to innovative ways to improve the health of our patients and ultimately the population we serve. Throughout the report you will find photos and biographies of key opinion leaders and ‘thinkers’ who share the vision of translating research into healthcare.

As 2018 draws to a close we refocus our efforts in refreshing our Strategic Plan in 2019 for the next five years. The next steps are to integrate a realistic research agenda into the six strategic commitments outlined in the St Vincent’s Clinical Services Strategy which sets a roadmap for the organisation including precision medicine, ambulatory models of integrated care, telehealth and virtual care, creation of centres of excellence around number of flagship clinical services and care to the poor and vulnerable.

In parallel to the Clinical Services Strategy is the ambitious campus redevelopment masterplan which sets out plans for the redevelopment of the last remaining site on the Research Precinct. Known as the West Street Redevelopment, the project aims to deliver the last piece of the research story on the Darlinghurst Campus by focussing our efforts in true translational research through purpose built clinical trials facilities, learning and education spaces and office based research including commercial space for industry that will create an atmosphere of collaboration and hopefully catalyze the long journey taking our research ideas through to commercialisation.

Much of the vision for West Street has emerged from the successful elements of our Translational Research Centre (TRC) which houses the Clinical Genomics Unit, UNSW Kirby Institute clinical academics, non-cancer clinical trials teams in a community facing facility. The growth in clinical trials across the campus has been significant and has been identified by State and Commonwealth Health Departments as a key priority area to deliver cutting edge therapies in a controlled and low risk manner. There has been a noticeable growth in early phase clinical trials in our cancer, medical oncology faculties which is to the heart of St Vincent’s Precision Medicine clinical services strategy. We continue to develop a program of clinical trials reform on the campus to streamline the approval, quality assure, optimise business and infrastructure aspects of conducting clinical trials across the network.

Our biostatistics and clinical trial design ‘Clinic’ has been enormously successful. A partnership between St Vincent’s and StatsCentral (UNSW

School of Mathematics and Statistics) has moved from an ad-hoc service to a weekly 'clinic' where researchers obtain expert statistical, trial design and data analysis advice from a consultant. The program has also led to the implementation of the common data management IT system REDCap that is hosted on health service servers which improves the quality, security and integrity and accessibility for analysis of any research data.

The research agenda at St Vincent's continues to evolve and AMR continues to adapt and respond to the changing needs of the campus. Our mission is to support our research community to provide the tools and world class facilities that fosters innovation and high quality work. I would like to thank our staff, students, visiting academics and collaborators for their commitment and contribution to a vibrant research culture that is safe and efficient and remains a great place to work.

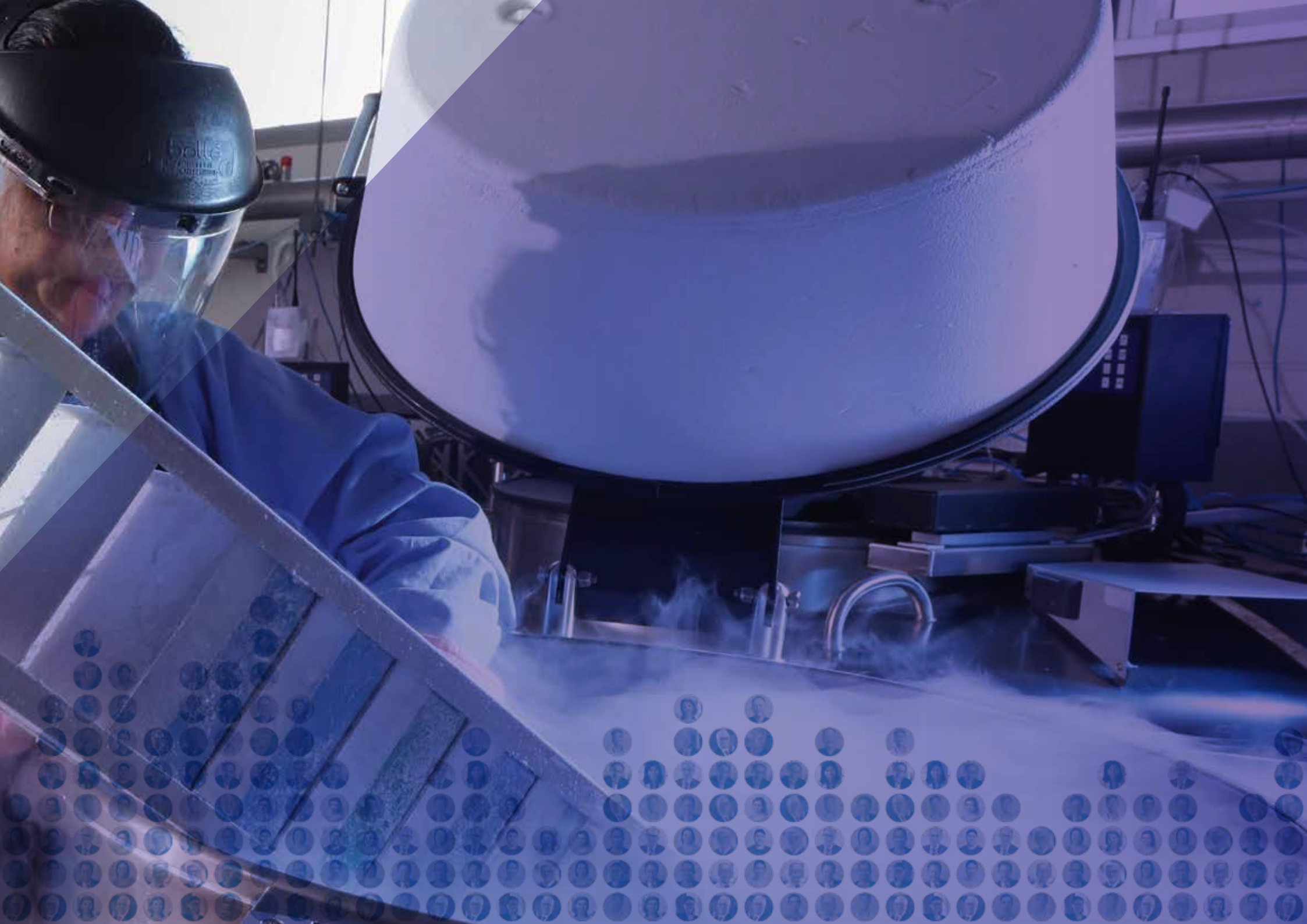
Associate Professor Philip Cunningham
Chief Operating Officer



Prof Ric Day
Dr Sophie Stocker PhD
Dr Jane Carland PhD
Department of Pharmacology

RESEARCH INFORMING HEALTHCARE





REFRESHING OUR RESEARCH STRATEGIC VISION FOR THE NEXT 5 YEARS

FOUR STRATEGIC THEMES

The refreshed Research Strategic Plan will articulate a vision for St Vincent's as it adapts to meet scientific, clinical and financial challenges of 21st-century healthcare. Our research strategic plan reflects the six strategic commitments presented in our 10-year Clinical Services Strategy and the five key elements set out in the St Vincent's Health Australia enVision 2025 document in which we aspire to lead through research-driven, excellent and compassionate healthcare.

Continuing on from our last five year Research Plan will present four strategic elements extending the vision delivered up till 2018. Within the themes will set our tangible objectives that will be outcome focussed.

These four themes are

- ♦ Research-Informed Healthcare
- ♦ Remarkable people
- ♦ Sustainability and Growth
- ♦ Innovation

The research strategy presented here flows directly from our 2013-2018 plan, 'developing healthcare research', and seeks to focus our research efforts on the six strategic priorities of the Clinical Services Strategy 2027. It will position us to respond well to healthcare service delivery challenges including population growth, aging and chronicity, rising costs of healthcare provision, increasing consumer expectations and skilled workforce shortages.

We also acknowledge important key external drivers, primarily our engagement with the NHMRC Advanced Health Research and Translation Centres, in particular the Sydney Partnership for Health, Education, Research and Enterprise (SPHERE), and the Australian Medical Research and Innovation Strategy 2016-2021.



RESEARCH-INFORMED HEALTHCARE

We will make research a core element of our delivery of world-class healthcare.



REMARKABLE PEOPLE

We will foster leadership in translational research within our clinical services.



SUSTAINABILITY AND GROWTH

We will build infrastructure and provide support that sustains our research and maximises the time our researchers can spend making discoveries.



INNOVATION

We will foster a culture that values and encourages research translation and enhances partnerships with industry, entrepreneurs, governments and broader communities.

PRECISION MEDICINE

NEURO – CENTRAL TREMOR TREATMENT PROGRAM

In a Southern Hemisphere-first, St Vincent's Hospital has successfully treated a patient with Essential Tremor, a neurological disorder that disabled the patient from performing simple tasks such as holding a glass of water, using MR-guided focused ultrasound.

Just hours after the procedure, without a single incision, the patient is free of symptoms immediately after the noninvasive, surgery-free procedure. The combined neuroradiology, neurology and neurosurgery team at St Vincent's used the newly acquired MR-guided Focussed Ultrasound (MRgFUS) device, which combines high intensity focussed ultrasound with Magnetic Resonance Imaging (MRI) to permanently interrupt the abnormal brain network causing tremor.

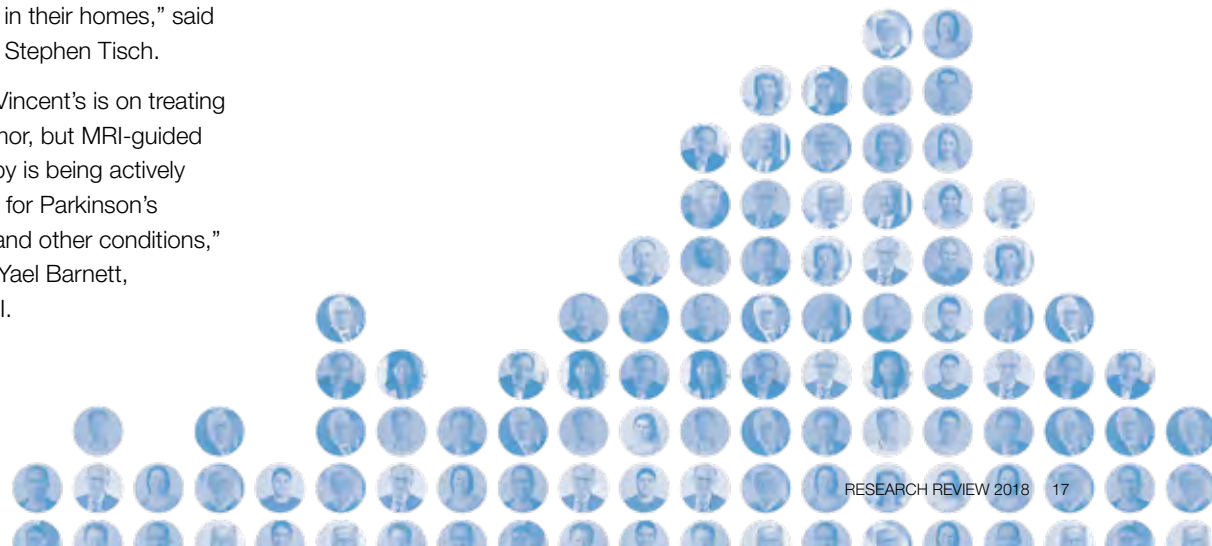
"In the course of the procedure, I made a lesion measuring only a few millimetres in size in the thalamus – a part of the brain involved in the 'circuit' that causes tremor. In creating this lesion the objective is to interrupt this circuit, a procedure known as thalamotomy.

Previously, this would have required an opening in the skull and insertion of a probe." said St Vincent's Neurosurgeon Dr Ben Jonker. The entire procedure is conducted inside an MRI scanner. In basic terms, the MRI effectively

serves as St Vincent's Performs First Incisionless Treatment for Essential Tremor the 'eyes' of the treatment, enabling the team to accurately plan, guide and target the ultrasound therapy.

It also enables precise measurement of the temperature in order to verify that only the intended tissue is treated. The immediate result is a significant reduction in the level of tremor. Essential Tremor is the most common movement disorder, affecting millions of people worldwide causing shaking of the limbs, head and voice. In some patients, the severity of the tremor becomes unbearable, interfering significantly with daily activities. "Most of my patients with Essential Tremor are over 40 but some were diagnosed in their twenties and in adolescence. For many of them, simple activities become hugely challenging and in some cases they can be embarrassed to go out in public and sometimes remain isolated in their homes," said St Vincent's Neurologist Dr Stephen Tisch.

"At present our focus at St Vincent's is on treating patients with Essential Tremor, but MRI-guided focussed ultrasound therapy is being actively investigated in clinical trials for Parkinson's disease, neuropathic pain and other conditions," added neuroradiologist Dr Yael Barnett, St Vincent's Director of MRI.



CLINICAL TRIALS AT ST VINCENT'S

- ◆ Centre for Applied Medical Research Clinical Research Program (CPR) provides high quality multidisciplinary clinical trial services across the St Vincent's campus for the implementation of academic, pharmaceutical sponsored and investigator initiated clinical studies. The CPR has extensive clinical trials expertise in multi-centred, investigator driven research projects which remains a major focus of the CPR into the future. The program is currently running 120 research projects across a growing portfolio of clinical specialities including HIV, viral hepatitis, infectious diseases, HIV associated and anal cancers, neurology including degenerative neurological diseases, palliative care, rehabilitation and pain medicine.
- ◆ The St Vincent's Hospital Heart and Lung Transplantation program is one of the largest and longest running programs in Australia, with survival rates that exceed that of the international benchmarks.
- ◆ As part of the program, the Heart Lung Research Group is involved in a variety of research projects, consisting of sponsored clinical trials, interventional studies, investigator-initiated studies, multiple national and local registries and various dedicated multidisciplinary team meetings. A key focus of the research is related to improving the outcomes for heart and lung transplant recipients and patients with various end stage diseases, who have limited treatment options. These include, but are not limited to advanced lung disease, pulmonary arterial hypertension and heart failure.

THE KINGHORN CANCER CENTRE

St Vincent's is highly respected for its cancer care services, which include the full array of cancer therapies and (in partnership with the Garvan Institute of Medical Research), a nationally-recognised clinical research program in Precision Cancer therapy linking cancer genomics to choice of treatment. Our growing investment and reputation in Precision Healthcare is well exemplified by the following example of an ongoing Clinical and Research program which is moving onto a national stage. St Vincent's Oncology Clinical Trials Unit located in the Kinghorn Cancer Centre won the NSW Premiers Award for best Cancer Clinical Trials Unit in November 2018. In providing the award, the Cancer Institute NSW acknowledged that St Vincent's has "brought together researchers and clinicians onto a single site, The Kinghorn Cancer Centre, fosters laboratory research directly driven by clinical challenges. The focus of clinical research at The Kinghorn Cancer Centre is in the areas of breast, prostate, gastrointestinal (pancreas and colorectal cancer) and haematological cancer."

PATIENT STORY - I PARTICIPATED IN A HEART LUNG CLINICAL TRIAL AT ST VINCENT'S

"I was diagnosed with a relatively rare lung disease approximately 4 years ago and sought a second opinion with Dr Monique Malouf, at St Vincent's Public Hospital Heart Lung Clinic. It was here that she confirmed my diagnosis and I was offered the opportunity to take part in a trial for a potential new treatment. I was given detailed information on what to expect as a trial participant and the possible side effects of taking the drug and reminded that I would not be treated any differently if I decided not to participate. As a call for help I wanted to go on the trial immediately, but I was encouraged that I should take some time to consider it further. Having thought about it, I decided I would still like to go ahead and participate. My hopes were that the new treatment would alleviate my symptoms and delay the spread of the disease.

In the early stages of the trial I did experience some of the side effects previously explained to me and these did go on for a few months. This could be a factor to discourage some participants, but because of the care, compassion and understanding of the Doctors and Nurses at the clinic, I carried on with the treatment and the symptoms continued to the point where they disappeared or diminished. During the next year and a bit, whilst attending the clinic for the trial I received and observed quality care and attention. All staff treated me and others as special and an individual and not just a guinea pig, as I sometimes jokingly referred to myself. At all times on the trial, and since, I have been kept up to date on my condition and I have been comforted in the knowledge that this is so. I will always agree to participate in further suitable trials recommended to me and encourage others to consider the possibility also. Not only do I see that these trials are potential ways of alleviate my symptoms and delay the spread of the disease, but also as a way to help to improve understanding of the disease and possible treatment options for the future of others."

(Mr GD)

SVHA INCLUSIVE HEALTH INNOVATION PROGRAM

SVHA INCLUSIVE HEALTH INNOVATION FUND:

PHARMACOGENOMICS AND MENTAL HEALTH PROJECT (DR KATHY WU, CLINICAL LEAD ST VINCENT'S CLINICAL GENOMICS UNIT)

Pharmacogenomics (PG) is the study of multiple genetic variants that influence an individual's metabolism to multiple medications, including many anti-depressants/anti-psychotics. PG-guided drug therapy aims to deliver the right drug at the right dosage to the right person at the earliest intervention window period. PG testing has been shown to improve both patient outcomes and health cost savings in the Mental Health system, by reducing adverse drug reactions or therapeutic failure and increasing treatment compliance. PG testing, however, is under-utilised in Mental Health, as reported by the recent Parliamentary Inquiry. This project will be the first in Australia to develop, implement, and evaluate a novel model of care to incorporate evidence-based PG-guided therapy for patients with mental illness. Clinical outcomes and cost-effectiveness of PG-guided treatment will be analysed, with a view to building evidence for future funding and lobbying for Medicare rebate for PG-guided mental health treatment.

INCLUSIVE HEALTH STRATEGY DEVELOPMENT

As an extension of the SVHA enVision 2025 Strategy, the St Vincent's Integrated Healthcare Campus Darlinghurst Clinical Services Strategy was developed in partnership with Deloitte in 2017. This clinical services strategy included a strategic commitment to "continue to advocate for and deliver compassionate care and service of the poor and vulnerable in the spirit of Mary Aikenhead and the Sisters of Charity." This project will develop a SVHNS strategy activation plan for this commitment to people who are poor and vulnerable. It will do this by engaging with key stakeholders, leading practice models, existing service data and the policy landscape to explore how, in an overarching and systemic way, SVHNS will more effectively deliver on the mission to support people who are poor and vulnerable. Over the next twelve months, the organisation will align its efforts to develop the Inclusive Health strategy activation plans to explore opportunities to make these connections and map actions which will drive better service integration and better outcomes for vulnerable people. The plan will build in existing strengths

and identify gaps in services and processes in order to do this. Vulnerable people tend to need to access significant healthcare resources, however, these resources can be used more effectively to achieve better outcomes; the anticipated financial and social impacts of the future actions will be considered. The project is also an opportunity to renew engagement with key internal and external stakeholders to build momentum and ownership of Inclusive Health at SVHNS.



S-CHECK APP

Methamphetamine use can have far reaching consequences, not only to the individual but to their family, friends and the general community.

The Stimulant Treatment Program at St Vincent's Hospital Sydney, the National Centre for Clinical Research on Emerging Drugs (NCCRED) and The Project Factory has developed the S-Check App, as an early intervention and harm reduction smartphone application.

The app is designed to increase their knowledge and to inform users of the associated risk as well as to provide information and recommendations for treatment and support.

The key features of the S-Check app are questionnaires, self-constructed reminders and regular check-ins to track basic ongoing health.

It works by asking the App user to self-evaluate themselves in six key categories:

- ♦ Physical Health
- ♦ Methamphetamine Use
- ♦ Psychological Wellbeing
- ♦ Sexual Health
- ♦ Cognitive Health
- ♦ Social Health & Lifestyle

A clinical trial has been established to assess the feasibility and efficacy of the S-Check App. The S-Check App is a new, innovative and exciting approach to how information can be delivered to those who use methamphetamine. By being an app, information is literally in the palm of the smartphone user. It is hoped that the app will be able to be a benefit and play a part in reducing the harm methamphetamine has not on just individual but also the community as a whole.



An example of a possible evaluation pathway for the S-Check App



LABORATORY RESEARCH PROGRAMS

NEUROSCIENCES

The Peter Duncan Neurosciences Research Unit headed by Professor Bruce Brew is primarily concerned with research into regeneration of brain tissue in a variety of disorders including MS, and various forms of dementia. The unit brings together laboratory-based basic discovery research scientists and neurosurgical teams focused on the use of adult stem cells as a therapy, and advanced neurosurgical procedures such as transplantation and research focussed on biochemical pathways that modulate stem cell growth and differentiation.

HAEMOPOETIC STEM CELL TRANSPLANTATION AND BLOOD CANCER

Professor David Ma is a clinician researcher specialising in haemopoetic stem cell transplantation and haematological conditions. His research program focusses on advancing our knowledge of the genetics of normal and blood cancer stem cells aiming at improving the benefits and stem cell transplantation and survival of patients with blood related cancers. Another prime example of our expanding translational research portfolio directly impacting on the health of current and future generations.

INFLAMMATION AND CYTOKINE BIOLOGY

Professor Samuel Breit leads the Inflammation and Cytokine Biology Research Program and continues his internationally recognised research into chronic inflammatory diseases which has led to the successful commercialisation of years of basic discovery laboratory research into clinically relevant biomarkers that directly impact on patient clinical management of obesity and cancer.

NSW STATE REFERENCE LABORATORY FOR HIV – RESEARCH AND DEVELOPMENT

Associate Professor Philip Cunningham heads the NSW State Reference Laboratory for HIV developing innovative programs to improve rates of HIV and HCV testing, diagnostic assay development, providing insights into the natural history and epidemiology of blood borne virus infections. The laboratory supports a growing number of clinical trials through maintaining a large repository of biospecimens and performing a range of esoteric biomarkers. The laboratory is directly linked to the HIV diagnostic laboratory services embedded in St Vincent's pathology and has enabled the transfer of new biomarkers from the research bench into diagnostic service delivery.

GASTRO-OESOPHAGEAL CANCER PROGRAM

The Gastro-oesophageal Cancer Program led by Professor Reginald V Lord is currently studying the frequency of genomic and transcriptomic alterations in oesophageal adenocarcinoma. These alterations may influence outcomes for patients with this cancer and may be therapeutic targets.

RHINOLOGY AND SKULL BASE RESEARCH PROGRAM

Associate Professor Richard Harvey heads the Rhinology and Skull Base Research program. As our second surgical researcher led program A/Professor Harvey brings together a collective group of clinicians and researchers working on inflammatory and neoplastic diseases of the upper airways.

GENE THERAPY PROGRAM

The Gene Therapy Program led by Professor Geoff Symonds is evidence of AMR's partnership with the biotechnology industry. With our growing portfolio of translational research industry and hospital based research programs, we can collaborate together and leverage ideas and infrastructure for a common goal. Foci of the group at present are HIV and Sickle Cell Disease gene therapy.

GIT, LIVER AND MICROBIOME RESEARCH PROGRAM

Associate Professor Mark Danta is a clinical academic gastroenterologist with UNSW and St Vincent's Hospital who leads the GIT, Liver and Microbiome Research Program. This translational program currently explores three areas: the role of the microbiome in liver and gastrointestinal disease; epidemiology and clinical aspects of hepatocellular carcinoma; and the complications of liver disease. The program also has a number of ongoing collaborations.

IN FOCUS

ST VINCENT'S HAEMATOLOGY, BONE MARROW TRANSPLANT AND CELL-BASED THERAPIES UNIT

St Vincent's public hospital was the first transplant hospital in Australia. The department has been performing bone marrow transplants (BMT) since 1975. We have a long history of successful pioneering work in Heart/Lung Transplant, BMT, cell & non-cellular immunotherapy and HIV translational and clinical research. All these successes were built on campus wide skilled and experienced staff with a deep understanding of immunology (the balance between immune killer cells and suppressive effector cells) and its clinical applications. Over the years we have built robust alliances and joint expertise across multiple clinical disciplines throughout our campus and across NSW.

Over the past 40 years we have built an internationally distinguished BMT/cellular therapies centre of excellence. Our BMT/cellular therapies (CT) laboratory service is accredited and our clinical service is the second largest BMT/cell-based therapy programme in NSW. Our programme has been selected as a referral centre for complex BMT. We are the Ministry of Health designated centre in NSW for autologous stem cell transplantation in autoimmune disease; the largest in Australia and second largest worldwide.

We are the only NSW programme performing BMT and cellular therapies in HIV patients.

Our clinicians are experts in this field and leaders within this sub speciality. The heads of our clinical and laboratory BMT/cell-based therapy program are highly experienced in this field with an extensive research and leadership track record. Our campus is dedicated to expanding our BMT/cell-based therapy services and we have commitment from our supporting surgical and medical services to support this increase in activity including CAR-T cell therapies.

We have a holistic approach and a comprehensive multidisciplinary team with dedicated and specifically trained nurses, pharmacists, physiotherapists, occupational therapists, dieticians, social workers, psychologists and quality management staff including a data manager and quality manager.

We have recently opened (2018) a purpose-built state of the art 20 single room inpatient unit dedicated to patients undergoing BMT/cell-based therapy. The Kinghorn Cancer centre is our outpatient cancer centre and opened in 2015. It includes a state of the art dedicated purpose-built BMT/cell-based therapy and Good Manufacturing Practice (GMP) lab with potential for onsite manufacture of cell-based therapies. We have modern outpatient facilities and services specifically designed to cater to BMT/cell-based therapy patients. Our facilities also include a wellness centre for outpatient allied health services on site. We have also invested in customizing our outpatient electronic medical record and chemotherapy prescribing program MOSIAQ to allow documentation of BMT/cell-based therapy specific clinical records, data and outcomes.

St Vincent's is also easily accessible for patients in remote areas as it is close to major air, water and land transport facilities. Our programme is the referral centre for South Eastern Sydney LHD, Illawarra Shoalhaven LHD, Southern LHD and Murrumbidgee LHD. We have a close working relationship and established referral patterns from Prince of Wales Hospital, St George Hospital, Liverpool hospital, Wollongong Hospital, Gosford Hospital and Canberra Hospital. SVH is dedicated to the provision of equitable access to health care. The haematology department provides outreach clinics and BMT/cell-based therapy services to Wagga Wagga and Griffith including access to high quality BMT/cell-based therapy services despite geographic and socioeconomic challenges. Our services to these areas are facilitated by our excellent IT infrastructure with an electronic medical record (MOSIAQ) that is unified across the relevant health districts which has significantly improved the safety of the clinical management of these patients and our ability to deliver BMT/cell-based therapy to patients in regional/rural settings. We also have a fully functional telehealth service.

St Vincent's set up and hosts the Australian Bone Marrow Transplant Recipient Registry (ABMTRR). In our commitment to quality and governance we expanded this nationally and included New Zealand. This registry is now the only source of outcome data for BMT/cell-based therapy in Australasia. Our clinicians are integral to the day to day activities of this registry and have been heavily involved in registry research and development. We also recently locally developed the ABMTRR research module which has been integral in utilising this registry in prospective BMT/cell-based therapy trials. The ABMTRR is now also the

designated national registry for CAR-T cell therapy outcomes and our clinicians are now helping develop the registry to accommodate this.

Our clinical trials unit has the largest number of BMT/cell-based therapy clinical trials in NSW. The unit been awarded the NSW Premiers Award for outstanding cancer clinical trials unit in 2018. We have the first BMT investigator-initiated trial in Australia (Haploidentical study). We have the only autoimmune transplant study in Australia. We were selected by Novartis to participate in the CAR-T cell trial in Diffuse large B cell lymphoma. We are negotiating an investigator initiated clinical trial with Novartis using their CAR-T cell product in collaboration with The Peter MacCallum Cancer Centre in Melbourne. We have a collaborative relationship with the Westmead hospital cellular therapies team. We also collaborate with the Canadian Bone Marrow Transplant Group for BMT/cell-based therapy trials and the European Bone Marrow Transplant Society EBMT.

We have created a myeloma fellow position specifically to set up and develop our CAR-T cell in Myeloma portfolio and a Lymphoma fellow to expand the CAR-T cell in lymphoma portfolio. We are developing a cellular therapies clinical trials portfolio including immune effector cells and CAR-T cells in solid organ malignancies in collaboration with A/Prof Anthony Joshua the head of the SVH oncology department who has a research track record in the field of adoptive T-cell therapy in solid organ malignancies. We have developed a highly regarded, well-staffed active phase I and first in-human program in haematological malignancies including leukaemia, lymphoma and myeloma. We are one of the leading sites in NSW conducting haematology first in-human clinical trials. We

participate in all the national haematological malignancies registries and have dedicated data entry staff for this purpose. This allows us to conduct data linkage studies and effectively review our clinical outcomes.

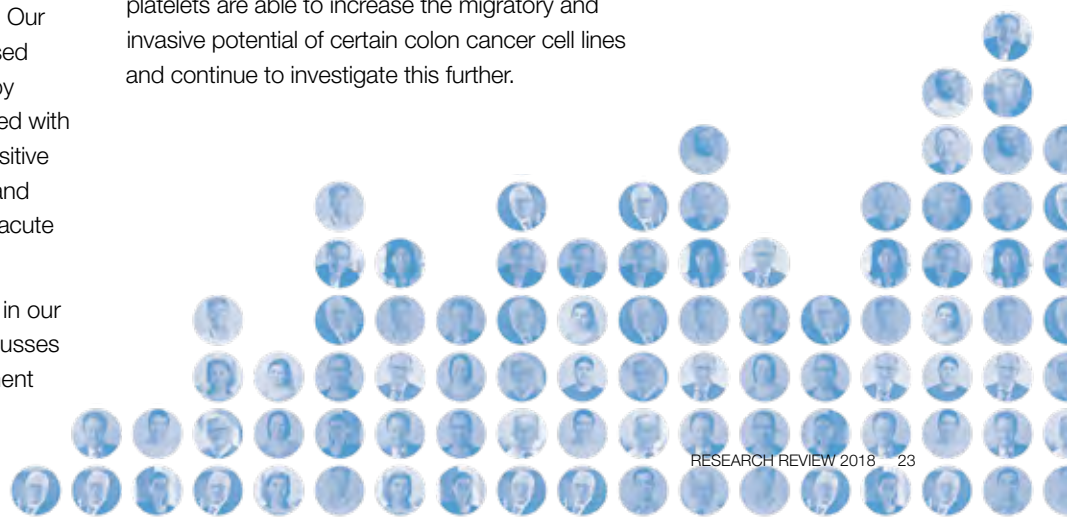
The clinical service as a whole is significantly aligned with an active laboratory based translational research program. The Blood, Stem cell and Cancer Research program (Lead by Professor David Ma) focuses on clinical application of translational research into bone marrow derived stem cell and blood diseases. The group applies 'the state of art' molecular, biochemical and cell culture techniques on clinical samples to dissect out the complex mechanisms controlling normal stem cell and conditions leading to the formation of cancer stem cell. Knowledge gained from these laboratory results is then applied to improve patient outcomes. Our group has three research strands: stem cell transplantation, malignant haematology and haemostasis.

Firstly, Stem Cell Transplantation projects including the study of multi-potent differentiation potential of human BM-derived mesenchymal stem cells and Improving donor CD34+ stem cells to reconstitute T cell compartment in adult haematopoietic stem cell transplants. Our malignant haematology projects are focussed on Identification of drug resistance genes by microarray profiling of leukaemic cells treated with tyrosine kinase inhibitors in Philadelphia positive acute lymphoblastic leukaemia (Ph+ ALL) and Role of microRNAs in the pathogenesis of acute myeloid leukaemia

Finally, research led by Dr Joanne Joseph in our haemostasis and thrombosis program focusses on improving the diagnosis and management

of patients with acquired and inherited bleeding disorders. By working with local cardiologists and intensive care specialists, we have been able to unravel the complex changes that occur in the haemostatic system in patients with implantable left ventricular assist devices and in those receiving support with extracorporeal membrane oxygenation with the aim of reducing bleeding whilst still maintaining adequate anticoagulation. We have also formed a unique collaboration, the Sydney Platelet Group, with haematologists and scientists from Prince of Wales, Royal North Shore and Concord Hospitals (Sydney Platelet Group) to improve the diagnosis of platelet-related disorders. This is the only service of its kind in Australia and offers patients an opportunity to receive a formal diagnosis.

The other arm of this program's research research explores the relationship between platelets and cancer, with a focus on colon cancer. We are examining the potential role that platelets and platelet releasate play in accelerating colon cancer cell proliferation, migration and invasion as well as the effects that antiplatelet agents may have on these processes. This work is in its infancy, but to date we have demonstrated that platelets are able to increase the migratory and invasive potential of certain colon cancer cell lines and continue to investigate this further.





**REMARKABLE
PEOPLE**



Dr Joanne Joseph
Prof David Ma
Dr Sam Milliken
Department of Haematology

VALE PROFESSOR DAVID COOPER

19 APRIL 1949 – 18 MARCH 2018

Scientia Professor David Albert Cooper AC FRACP FRCP FAA FAHMS was an Australian Immunologist and HIV Researcher at St Vincent's Hospital and the Kirby Institute at the University of New South Wales (UNSW).

David's life was dedicated to the prevention, treatment and cure of HIV and other infectious diseases. These diseases disproportionately affect the world's most disadvantaged communities, and David firmly advocated health as a fundamental human right in all of his endeavours. His leadership as a clinician and researcher was extraordinary.

Professor Cooper had a profound impact on the St Vincent's Campus. His clinical career spanned three decades at St Vincent's. Returning to Sydney from the US, David was the driving force in establishing both the Immunology B Outpatients Clinic (IBAC) and the State Reference Laboratory for evaluation of new AIDS diagnostic technologies.

The lab soon became pivotal because of its capacity to isolate HIV, perform antibody tests to diagnose infection and more recently undertake viral load and detailed analysis of HIV sequences and identify HIV drug-resistant

variants. By the late 1980's the Laboratory was screening more than 1000 samples a week for the presence of HIV antibodies and to this day has diagnosed the majority of cases of HIV infection in Australia.

In 1984 David became the Director of the newly established St Vincent's Unit for HIV Medicine, which saw six dedicated beds established within Ward 17 South of the Cahill Building. At this time David was leading the way in both the clinical and research environment in this new fight against HIV. But there was another major battlefield that had quickly emerged, that of social stigma where David suddenly found himself alongside the Sisters of Charity to play a critical role in advocating on behalf of the HIV community as fear and ignorance took hold both within the general public and on the Hospital Campus.

In the St Vincent's Executive Medical Board Meeting of October 1984 it was recorded that:

"there was much discussion about the detrimental effect the fear of this disease has and will have on both staff recruitment and patients' acceptance of hospitalisation at St Vincent's. Concern were also expressed about the number of beds that these patients may take up in the hospital, when the maximum effects of this disease are felt."

In this atmosphere of stigmatisation and fear of the unknown, 1984 marked a seminal moment, a true test of the Sister's Mission of serving those in need. And the emphatic response of the Sisters and the likes of David Cooper, Ron Penny and their colleagues was that of unequivocal love.

Indeed the moral strength and conviction exhibited by the Sisters and David in standing up to this fear and confronting it head-on back in 1984, will go down as a watershed moment for St Vincent's, and one of the proudest flashpoints in our 160-year history.

Professor Cooper became the inaugural Director at the establishment, in 1986, of the National Centre in HIV Epidemiology and Clinical Research that ultimately became the Kirby Institute. David was an internationally renowned leader, initiating ground-breaking, collaborative infectious disease research that has saved countless lives in Australia, and globally.

David's record of clinical and academic achievement is unparalleled. In the mid-1980s, his research led to the first description of the seroconversion illness which accompanies initial HIV infection in many people. He then proceeded to take a leading role in most of the key trials that ultimately led to the optimal use of life-saving combination treatments that are now widely available to people with HIV all over the world. In 2003, he was made Officer in the General Division of the Order of Australia (AO) for "service to medicine as a clinician, researcher and leading contributor in the field of HIV/AIDS research and to the development of new treatment approaches." David was working right up to the time of his illness, running large-scale international clinical trials to improve HIV treatment, building research capacity in Thailand, Cambodia, Indonesia and Myanmar, and leading the trial of pre-exposure prophylaxis to eliminate HIV transmission in New South Wales

In recognition of his life's work, David Cooper was posthumously appointed Companion of the Order of Australia (AC) in the 2018 Queen's Birthday Honours for "eminent service to medicine, particularly in the area of HIV/AIDS research, as a clinician, scientist and administrator, to the development of treatment therapies, and to health programs in South East Asia and the Pacific.

David continued to see patients at St Vincent's and in 2016 he retired as the Director of the St Vincent's Applied Medical Research Centre and head of clinical trials. David's leadership in building research and clinical trials capacity at St Vincent's is immeasurable, he mentored and taught countless students, registrars and health workers, he was a friend and confidant to hundreds of patients, and always their advocate and voice.



FOSTERING LEADERSHIP IN TRANSLATIONAL RESEARCH

DR ELGENE LIM



Elgene is a clinician scientist with a focus on breast cancer research and treatment. He obtained his PhD at the Walter and Eliza Hall Institute, and completed his post-doctoral training at the Dana-Farber Cancer Institute and Harvard Medical School with Myles Brown and Eric Winer. In 2017, he was awarded the inaugural National Breast Cancer Endowed chair. He is a clinical academic at St Vincent's Clinical School and oversees the breast oncology services at the Kinghorn Cancer

Centre. He also heads the Connie Johnson breast cancer research group at the Garvan Institute, where they perform clinically focused laboratory research, including the establishment of patient-derived breast tumour xenografts in mice, the evaluation of novel therapies, and translation of laboratory discoveries into clinical trials, including a Window of Opportunity study of Progesterone in Breast Cancer and an exercise study in patients undergoing preoperative chemotherapy. Their research is funded through Cancer Australia, NHMRC, Cancer Council NSW, and the National Breast Cancer, Love Your Sister, Movember and Garvan foundations.

ASSOCIATE PROFESSOR STEVEN FAUX



Associate Professor Steven Faux is the Director of the Departments of Rehabilitation and Pain Medicine at St Vincent's Hospital, Sydney and a conjoint academic at the University of NSW and the University of Notre Dame. He has authored over 70 journal articles and received the Ko Awatea International Excellence award for patient safety in evidence based guidelines for acute pain in the elderly. He leads a research team of 3 who support over 12 clinician researchers and has conducted

Australia's first data linkage study in trauma and rehabilitation, the largest international study on transplant rehabilitation and the first international RCT in polytrauma rehabilitation. His team authored Australia's first RCTs in tele-rehabilitation for Chronic Pain and the first descriptive studies of post stroke spasticity in nursing homes, 7 day a week rehabilitation and the first international comparison study in concussion outcomes between Australia and Canada. As a foundation member of the National Facility for Human Robot Interaction Research at University of NSW, he has Australian Research Council grants for research in robotics for dementia, the use of unobtrusive sensors in falls prevention and the use of immersive (3D) virtual reality for stroke education and pain management.

PROFESSOR JERRY GREENFIELD



Professor Jerry Greenfield is Head, Department of Diabetes and Endocrinology, Clinical Associate Dean, St Vincent's Clinical School and Laboratory Head, Clinical Diabetes, Appetite and Metabolism, Garvan Institute of Medical Research. He oversees a busy clinical service that consults inpatients and outpatients with multiple endocrine problems at St Vincent's Public and Private Hospitals. He is a clinician researcher who heads an active

clinical research program, comprising a postdoctoral fellow (Dr Dorit Samocha-Bonet) and PhD students (Endocrinologists Drs Jennifer Snaith, Joel Lasschuit, Angela Sheu, Tamara Milder and Thaw Htet). His research is focussed on the investigation of personalised diabetes therapies for type 1 and type 2 diabetes and individuals with prediabetes. The group has undertaken detailed clinical studies using state-of-the-art clinical investigative tools to elucidate the metabolic defects contributing to insulin resistance. By identifying an individual's specific pathophysiological phenotype, his team is investigating the characteristics that allow the prediction of maximal efficacy and tolerability of type 2 diabetes medications, such as metformin and the SGLT-2 inhibitors. Studies in type 1 diabetes aim to identify the metabolic characteristics that most accurately predict efficacy of adjunctive oral therapies, with the ultimate aim of reducing the cardiovascular risk associated with this disease. In collaboration with Prof Jacqueline Center, he is also investigating the links between diabetes, insulin resistance, obesity and osteoporosis. Prof Greenfield has published >100 research studies in national and international peer-reviewed journals, including a landmark paper in *N Engl J Med* that identified links between the melanocortin 4 receptor, autonomic dysfunction and blood pressure regulation in humans.

PROFESSOR SANDY MIDDLETON



The Nursing Research Institute (NRI), a collaboration between St Vincent's Health Australia Sydney and Australian Catholic University, is led by its inaugural Director and Professor of Nursing, Sandy Middleton. Since its inception in 2009, the NRI has conducted multidisciplinary clinical and health services research focused on improving patient outcomes and health systems. The NRI's research program spans systematic reviews, trials, surveys, mixed-methods

and qualitative research with a particular focus on implementation science research - the study of how to get evidence into practice. With 15 core staff, the NRI offers both postgraduate students and SVHAS clinicians opportunities to participate in research. NRI researchers have been awarded approximately \$40 million in grants and have published over 160 peer-reviewed articles in top-tier journals. Professor Middleton led the landmark NHMRC-funded QASC cluster trial demonstrating decreased death and dependency following implementation of nurse-initiated protocols to manage fever, hyperglycaemia and swallowing post-stroke. These protocols were successfully translated into all 36 NSW stroke services. Currently, these protocols are being implemented into 14 European countries. Professor Middleton recently was a finalist in the Federal Health Minister's inaugural Award for Nursing Trailblazers, acknowledging nurses role in transforming Australia's health care system. She is leading the implementation science component of the Sydney Partnership for Health, Education, Research and Enterprise (SPHERE), one of Australia's nine Advanced Health Research and Translation Centres.

AWARDS AND PROFILES

DR JENNY STEVENS, COLLABORATIVE LEADER OF THE YEAR AT THE 2018 NSW HEALTH AWARDS

In November 2018, St Vincent's anaesthetist Dr Jenny Stevens was awarded by Health Minister Brad Hazzard, the Collaborative Leader of the Year at the 2018 NSW Health Awards. Jenny is a driving force in our pain management initiatives across the Campus and has working with our clinicians and patients on an important quality and patient safety initiative in opioid management.

Over the last few years, she has shown genuine stewardship in a variety of important issues from confronting opioid addiction, to helping address pain in the elderly to tackling staff safety issues around inhaling anaesthetics agents in Haematology. Jenny has pursued these endeavours in an inclusive way focussing heavily on engaging and empowering our JMO's and nurses.



NSW PREMIERS AWARD FOR BEST CANCER CLINICAL TRIALS UNIT IN THE STATE

St Vincent's Oncology Clinical Trials Unit won the NSW Premiers Award for best Cancer Clinical Trials Unit in the State. In providing the award, the Cancer Institute NSW acknowledged that St Vincent's has "brought together researchers and clinicians onto a single site, The Kinghorn Cancer Centre, fosters laboratory research directly driven by clinical challenges. The focus of clinical research at The Kinghorn Cancer Centre is in the areas of breast, prostate, gastrointestinal (pancreas and colorectal cancer) and haematological cancer."

This is an important award for our Campus, not only in that it acknowledges the extraordinary work of our Cancer team, but it highlights how effective our St Vincent's Campus Cancer Plan 2015-2020 is proving. The Cancer Plan has a heavy focus on clinical trials and I am delighted to report the huge increase in recent years of our endeavours in Oncology and Haematology clinical research trials. In 2011, we conducted 15 collaborative trials, in 2017 this escalated to 45. In relation to commercial trials we increased from 13 trials in 2011 to 108 in 2017. From Phase 1 through to Phase 4 trials, we have dramatically increased our clinical research in recent years to improve treatments in a broad range of cancers.

Ensuring that our Campus is at the forefront of clinical trials in Australia is crucial to ensuring that we provide our patients with the most effective and cutting edge treatment, particularly in light of our focus on personalised and precision medicine.



PROFESSOR JERRY GREENFIELD, MILLENNIUM AWARD FROM DIABETES AUSTRALIA

Professor Greenfield was awarded a Millennium Award of \$150,000 to support the novel study of insulin resistance in people with type 1 diabetes. Prof Greenfield and his team from the St Vincent's Department of Endocrinology and the Garvan Institutes Diabetes and Metabolism Division will be looking at a group of people with type 1 diabetes, trying to establish why some people with type 1 diabetes are prone to insulin resistance and to examine strategies for treatment. The clinical study will focus on personalised treatments for insulin resistance in adults with type 1 diabetes identifying the response to metformin, a drug commonly used to improve insulin resistance in type 2 diabetes.



50 YEARS OF HEART TRANSPLANTATION

October marked the 50th anniversary of the first heart transplant in Australia, performed here at St Vincent's Hospital by Dr Harry Windsor in 1968. We've come a long way since then, but we haven't forgotten the pioneering work of Dr Windsor who paved the way for St Vincent's to become a Cardiothoracic Centre of Excellence.





GREG DORE APPOINTED UNSW SCIENTIA PROFESSOR

As recognition for high performing Professors excelling in research, education, social engagement and global impact, the University of NSW's Scientia Professor scheme is a prestigious accolade, offered to the University's top 10% of their Professoriate.

We're pleased to share, that conjoint Professor Greg Dore, St Vincent's Infectious Diseases, was recently announced as a UNSW Scientia Professor. This is wonderful recognition of his incredible work, particularly in the areas of hepatitis C; and therapy for current injecting drug users and individuals on opiate dependency pharmacotherapy.

PROFESSOR DAVID KISSANE AC, INAUGURAL CHAIR OF PALLIATIVE MEDICINE RESEARCH

Professor Kissane, MD is an academic psychiatrist and researcher in the fields of psycho-oncology and palliative care. Prior to joining us he has served as Head of the Department of Psychiatry for Monash University, Chairman of the Department of Psychiatry and Behavioural Sciences at Memorial Sloan-Kettering Cancer Center in New York and, before that, the Foundation Chair of Palliative Medicine at the University of Melbourne.

The collaboration between the University of Notre Dame Australia and St Vincent's Cunningham Centre for Palliative Care Research provides a special opportunity to strengthen clinical research conducted towards the end-of-life. This is an important agenda for our Campus, which is committed to the optimal care of the dying through the practice of palliative care





AMR GRANT RECIPIENTS 2018

AMR CLINICIAN 'BUY-BACK' SCHEME

DR DARREN ROBERTS – \$50K

CLINICAL PHARMACOLOGY/TOXICOLOGY

Darren Roberts is a staff specialist at St Vincent's Hospital in clinical pharmacology/toxicology, nephrology and addiction medicine, and a Conjoint Associate Professor at UNSW. His research interests are in the broader fields of clinical pharmacology, toxicology, pharmacokinetics, therapeutics, nephrology and evidence based medicine. The Clinician Buy-Back scheme has provided Darren with the opportunity to initiate new research projects, to progress others and to supervise postgraduate research students at UNSW. In particular, in collaboration with scientists

and clinicians in clinical pharmacology and nephrology he initiated a clinical study investigating the pharmacokinetics of probe drugs in patients with acute kidney injury. Other local research projects enabled by the Clinician Buy-Back scheme include optimising the use of antibiotics in patients receiving haemodialysis and various projects in addiction medicine including an alternative pathways for opioid substitution treatment. The scheme also allowed Darren to participate in international research activities, including the development of guidelines for the use of dialysis in poisoned patients, and risk assessment of the QT interval in acute poisonings.

DR EMILY STONE – \$50K

THORACIC MEDICINE

Dr Stone is a Consultant Respiratory Physician and Acting Head of Thoracic Medicine within the Department of Thoracic Medicine and Lung Transplantation at St Vincent's Hospital Sydney. She is a conjoint Senior Lecturer at the University of New South Wales and the Chair of the St Vincent's Hospital Lung Cancer Multidisciplinary Team (MDT). Her chief clinical and research interests are in the fields of lung cancer, multidisciplinary team care and tobacco control. She is currently completing doctoral studies in the field of clinical data science in lung cancer multidisciplinary care with a particular focus on optimizing data

collection and feedback for maximum clinical impact. She combines this with clinical commitments, teaching at the post-graduate and undergraduate levels and supervision of research medical students. The AMR Clinician Buy-Back Scheme Grant has provided much needed support for dedicated PhD research time by providing her department with funding for a locum clinician on a part-time basis. This has accelerated her progress during the PhD and given her time to submit and publish manuscripts during her studies. The AMR Clinician Buy-Back Scheme Grant has accelerated her progress and given her time to maximize the opportunities afforded by post-graduate research.





AMR RESEARCH TRAINING PROGRAM (RTP) SCHOLARSHIP TOP-UP SCHEME

DAVID CAPRARO

As a PhD student working in the Blood, Stem Cell and Cancer Research Program at AMR, my project is focused on examining the effect of platelets and platelet-derived extracellular vesicles on colorectal cancer cells and if aspirin treatment can influence this interaction.

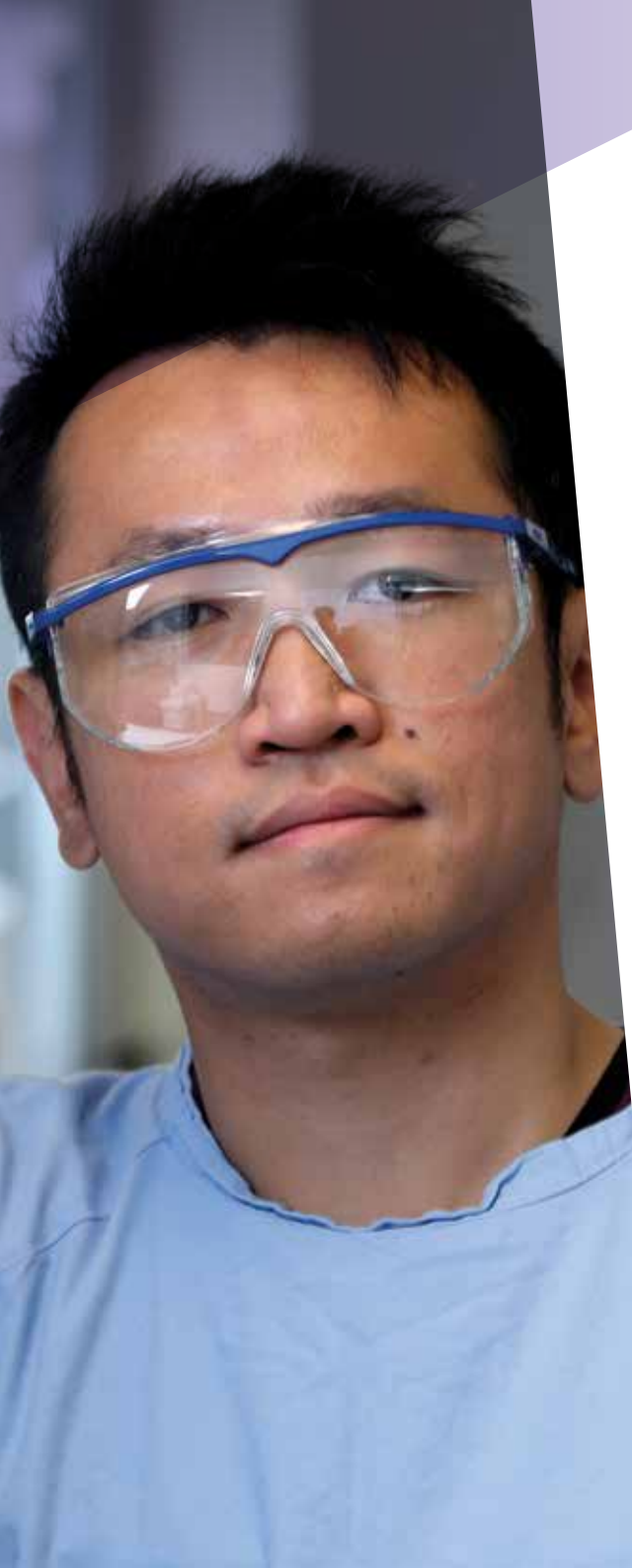
It has long been understood that platelets play a role in the development and metastasis of cancer. Extracellular vesicles are small particles released by cells including activated platelets that have been observed to also play a role in cancer development. There is evidence that aspirin is able to reduce the risk of developing cancer and we hypothesise that the antiplatelet effect of aspirin is the cause of this.

To investigate this hypothesis, platelets are co-incubated with colorectal cancer cells and techniques such as immunofluorescence microscopy and assays for migration, invasion and proliferation are used to examine their effect. Untreated or aspirin-treated platelets are used and extracellular vesicles are also isolated from them to investigate what effects they have in the same assays.

GINA CHOWDHURY

Gina Chowdhury is a PhD candidate with UNSW under the primary supervision of Professor Ric Day, with co-supervision from Dr Jane Carland and Dr Sophie Stocker, with co-investigators Professor Peter Macdonald and Professor Jerry Greenfield. She completed her Bachelor of Business in 2010 and a Bachelor of Medical Science (Honours 1) in 2016. Her current project reflects her passion for translatable clinical research refining the quality use of medicines where she is investigating the safe use of metformin in heart failure patients. This project aims to improve the confidence of prescribers and offer guidance for the use of metformin in heart failure.





KEVIN HENDRAWAN

I completed my undergraduate studies in zoology before I started working at the St Vincent's Centre for Applied Medical Research as a research assistant. Here, my growing interest for immunology lead me to continue my research training as a PhD candidate at the St Vincent's Clinical School. My current research focuses on investigating the immune system "reboot" that occurs in autoimmune disease patients treated with autologous haematopoietic stem cell transplantation. This involves using lab-based experiments to understand the functional changes in immune cells that leads to clinical improvement in transplanted patients. This research project can potentially uncover novel immunological mechanisms that can also be used to improve patient care, which I find both fascinating and rewarding.

RANITA KIRUBAKARAN

Miss Ranita Kirubakaran is a second year PhD student under the St Vincent's Clinical School, UNSW Medicine, UNSW Sydney. She has been working as a clinical pharmacist for the past 8 years with special interest in clinical pharmacology. She has been actively involved in clinical research with multiple publications, presentations at national and international conferences and awards received. She is currently working closely with the Department of Clinical Pharmacology and Toxicology, St Vincent's Hospital, Sydney under the supervision of Professor Richard Day, Dr Jane Carland and Dr Sophie Stocker focusing on optimising tacrolimus dosing and monitoring in adult heart and lung transplant recipients. At present, she is concentrating on identifying and optimising a population pharmacokinetic model for tacrolimus in adult heart and lung transplant recipients to personalise their drug therapy. To meet the clinical needs of the growing transplant recipient populations as they require a lifetime of pharmacological therapy to prolong organ survival, this project aims to promote the safe and effective use of tacrolimus therapy in transplant recipients. In addition, she is collaborating with the School of Pharmacy, The University of Queensland on the application of pharmacometric methods. Her latest achievements include ASCEPT Clinical Pharmacology Special Interest Group Prize, ASCEPT Neville Percy Prize Finalist and St Vincent's Clinical School HDR Travel Award 2019.



AMR TRANSLATIONAL RESEARCH GRANTS – 2018

- ♦ The aim of the AMR Grants program is to promote translation research, particularly in its early phase. This is envisaged to support salary, equipment and research consumable costs to assist early stage healthcare researchers to participate directly in research projects as a component of their professional career. These grants are intended for early stage researchers to mobilise a translational research project to publication with a view to attracting further funding from other peer reviewed grant agencies
- ♦ There are three grants intended to seed fund projects that have a clear project trajectory to improve clinical practice. There will be a major grant (\$50,000) and two additional grants (\$25,000) per annum. Each Grant is for one year duration. The Inclusive Health Innovation Fund (IHIF) will support a further five (5) grants of \$30,000 per annum for research projects involving Inclusive Health.

TRANSLATIONAL RESEARCH GRANTS

PROF BRUCE BREW AM – \$50K

Validation of a fast and inexpensive MRI method for detection of amyloid deposits in brain

DR KAZUO SUZUKI – \$25K

Development of HIV-1 and HIV-2 confirmation assays on intelliplex platform

A/PROF LOUISE EMMETT – \$25K

Pilot trial assessment of diagnostic value of Ga 68 DOTATATE PEC CT imaging for staging of ER/PR + HER 2- breast cancer patients with metastatic disease. Comparison to conventional imaging and FDG PET CT

AMR INCLUSIVE HEALTH INNOVATION FUND GRANTS

DR MARTINE O'NEILL (ANAESTHETICS) – \$24,300

Evaluating a novel screening tool to identify patients at risk of transitioning from acute to chronic postsurgical pain, and those at risk of continuing opioid use in the post-surgical period

A/PROF NADINE EZARD (DRUG & ALCOHOL) – \$50K

A/PROF NADINE EZARD (DRUG & ALCOHOL) – \$50K

The Substance Use Sex Index (SUSI) Validation Study: A new tool for measuring change in HIV, STI and BBV risk behaviour in substance use treatment studies

MS CLAUDIA WOOLF (PSYCHO-GERIATRICS) – \$22K

Club Connect: A healthy brain ageing cognitive training program for older adults

A/PROF STEVEN FAUX (REHABILITATION MEDICINE) – \$38K

Quantifying the incidence of persistent pain and its impact on wellbeing and quality of life among refugees and asylum seekers in detention

AMR EQUIPMENT GRANTS

PROF BRUCE BREW – \$17.5K

Muse Cell Cytometer

DR CHRISTINE SHINER – \$12.5K

BCI Spectro2 30 Pulse Oximeter & Accessories



SPHERE GRANT RECIPIENTS

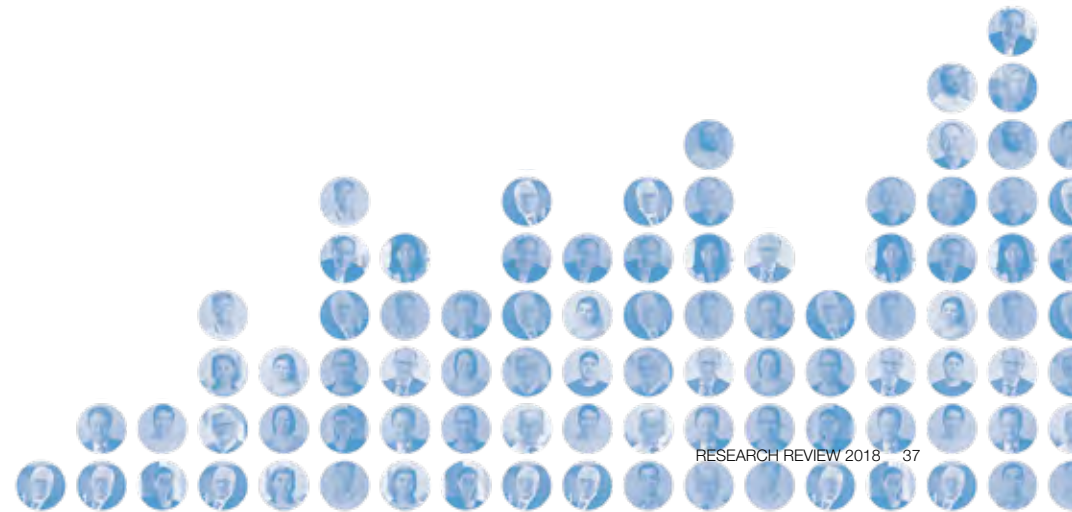
SPHERE TRANSLATIONAL RESEARCH FELLOWSHIPS

DR DAVINIA SEAH (PALLIATIVE CARE) \$101K

I am a palliative care physician at the Sacred Heart Health Service at St Vincent's Hospital Sydney, where I work in the community palliative care services. Under the leadership of Professor Richard Chye, there is a strong culture of research under the leadership at Sacred Heart. After completing my basic physician training in Melbourne, I was awarded my Masters in Public Health at Harvard University, and worked as a research fellow at Dana-Farber Cancer Institute, Boston. These experiences abroad were invaluable as it allowed me to work with international leaders in healthcare, providing me with the foundations and curiosity in research.

My personal interest lies in optimizing health service utilisation of patients in palliative care, particularly as Australia is a leader in the provision of palliative care services.

The Sydney Partnership for Health, Education, Research and Enterprise (SPHERE) translational fellowship is a new initiative aiming to support clinicians to work on issues that are relevant to their hospital networks with the goal of using the results of the project to improve patient outcomes through innovation or change to guidelines or policies. As the inaugural recipient of this fellowship, I will pursue a PhD under the tutelage of Professors David Currow and Kathy Eagar, while continuing my role managing community palliative care services. I will evaluate a cohort of Australian patients at the end of life in both the hospital setting and the community, in order to better understand the factors that may influence health service utilization, with the view to modify factors that will lead to optimal resource use. Through this project, I hope to influence health delivery policy through the use of population data, and improve the outcomes of our patients and their families by through the optimisation of palliative care services.



SPHERE (TRIPLE I) SEED GRANT

DR WINNIE TONG

“De-labelling patients with antibiotic allergy in Sydney adult and paediatric hospital allergy services - towards standardisation and improved patient outcomes”.

After completing specialist training in 2011 in Clinical Immunology / Immunopathology, I was awarded my PhD by the University of New South Wales in 2016. The thesis was titled “T-cell responses to human papillomavirus (HPV) in men with anal high-grade squamous intraepithelial lesions”, and included three first author publications that were the first to quantify regression of anal precancerous lesions using clinical data, and also the first to demonstrate an immune correlate for this regression using a flow cytometry functional assay based on CD25/CD134 co-expression for HPV-specific T-cells.

This work had significant impact in the field internationally as spontaneous regression of anal precancerous lesions was not widely recognised. This led to over-treatment of these lesions without demonstrated efficacy at preventing anal cancer, and at significant cost particularly to patients with side effects of

treatment and screening. The paper published in AIDS in 2013 has been cited ~41 times to date and was reviewed by the New England Journal of Medicine Journal Watch.

In 2014, I established an adult allergy service at St Vincent’s Hospital, Sydney. Post-PhD, I have combined this part-time staff specialist role with private practice, taking over care of a large cohort of patients with autoimmune disease from a retiring immunologist in 2015.

In 2017, I was awarded an inaugural seed grant (\$75,000) by Triple I Clinical Academic Group (Infection, Inflammation and Immunity Theme), Sydney Partnership for Health, Education, Research & Enterprises (SPHERE) for a project titled “De-labelling patients with antibiotic allergy in Sydney adult and paediatric hospital allergy services - towards standardisation and improved patient outcomes”. This is a multicentre prospective clinical study for which I am the Co-ordinating Principal Investigator. This project also forms the basis of a new allergy focused clinical research network in Sydney which I am leading.



SPHERE - \$50K GRANT TO ST VINCENT'S PUBLIC HOSPITAL DIRECTOR OF NURSING

JULIE GAWTHORNE

In a first for the St Vincent's Health Network Sydney, Clinical Nurse Consultant (CNC), Julie Gawthorne, has been awarded a twelve-month research internship with the Nursing Research Institute. The internship is jointly funded by the National Health and Medical Research Council accredited Sydney Partnership for Health, Education, Research and Enterprise (SPHERE), St Vincent's Hospital Sydney and St Vincent's Health Australia. Julie brings 24 years of nursing

experience and expertise to the role and has been the CNC in the Emergency Department at St Vincent's Hospital since 2004.

In this new role, Julie will work as the SPHERE Implementation Officer helping clinicians within SPHERE identify and address evidence-practice gaps to enable healthcare improvement. As part of her internship, she also will undertake a project examining Clinical Quality Registry participation at SPHERE hospitals. The project aims to identify departments who are contributing data to Clinical Quality Registries and explore how data are being used to drive local practice improvement.



HIGH IMPACT RESEARCH FUNDING 2018

MEDICH FOUNDATION ST VINCENT'S CELL BASED THERAPIES UNIT

To realise the vision for the St Vincent's Cell-Based Therapies Unit, our goal is to bring together world-class laboratory research and clinical trials under the leadership of a newly appointed Director of Cellular Therapies.

Working closely with the St Vincent's Curran Foundation, the Medich family have been generous partners in advancing our cellular therapies capacity by enabling the acquisition of a new state-of-the-art flow cytometer and cell sorting equipment.

Their generous gift will support our clinical and research programs which are using a patient's own cells as treatment for many types of blood cancers and autoimmune disease including scleroderma and Multiple Sclerosis.

Cellular therapy has the potential to transform bone marrow transplantation and St Vincent's has been at the forefront of the development and application of cellular therapies using Autologous Haematopoietic Stem Cell Transplantation (HSCT).

This support from the Medich family will ensure we can continue to lead the way in our clinical and research work to alleviate the suffering for people with malignant and auto-immune diseases.

IAN POTTER GRANT DR MICHAEL LOVELACE

Title – "St. Vincent's AMR establishes Live Cell Imaging Facility with substantial grant contribution from the Ian Potter Foundation"

In September 2018 AMR was awarded \$100,000 for its first Ian Potter Foundation Medical Research Grant. These grants are highly sought after, and facilitate the purchase of critical equipment needs of research institutes Australia-wide. The grant was led by St. Vincent's Hospital clinical Neurologist Prof. Bruce Brew and his senior scientist Dr. Michael Lovelace, in conjunction with other laboratories at AMR and external collaborators. This funding, combined with other internal funding, enabled the purchase of two complementary scientific instruments.

The first, an Incucyte Zoom live cell imaging system arrived in January 2019, and enables researchers to capture and analyse microscope images of their cells in an automated manner. This, combined with powerful software analysis modules frees up researcher's valuable time, boosting productivity and providing valuable biological insights for publications and accelerating the progression of research toward cures. The Incucyte can image up to 6 plates concurrently, making it perfectly suited to the diverse research being undertaken at AMR (Photo A). The system is currently being used to investigate the responses of brain cells over time to drugs, how stem cells respond to Multiple Sclerosis (MS) drugs during inflammation, and how leukaemia cells respond to therapies, etc.

The second instrument, a Cellasic ONIX 2 microfluidic perfusion device is a portable upgrade to a live cell imaging microscope such as those in partner institutes at Garvan and Victor Chang. It enables automated solution switching in a pre-programmed manner, allowing direct evaluation of the effects of drugs and other therapies on cells prior to further immunostaining or RNA expression profiling



Patricia Medich, Anthony Medich, Kim Medich and Roy Medich OAM

ST VINCENT'S CLINIC FOUNDATION — 2018 GRANT RECIPIENTS

SVPHS LADIES' COMMITTEE SR MARY BERNICE RESEARCH GRANT – \$120,000

"Vascular effects of the sodium-glucose cotransporter 2 inhibitor empagliflozin in people with type 2 diabetes and chronic kidney disease"

Principal Investigator
Prof Richard Day

ADULT STEM CELL RESEARCH GRANT – \$100,000

"Investigating cohesion and ERG as cooperating oncogenes that drive haematopoietic stem cell transformation to acute leukaemia"

Principal Investigator
Dr Tim Molloy

TANCRED RESEARCH GRANT – \$50,000

"Evaluation of Cardioprotective effects of agents with newly identified Sodium Hydrogen Exchange inhibitor activity in H9c2 cells & an isolated working heart model of donor heart retrieval & cold storage"

Principal Investigator
Prof Peter Macdonald

FROULOP RESEARCH GRANT – \$30,000

"Pulsatility in continuous flow left ventricular assist devices - effect on microvascular beds"

Principal Investigator
Prof Christopher Hayward

ANNUAL RESEARCH GRANT 1 – \$40,000

"Reactivating p53 to combat CDK4/6 inhibitor resistant ER positive breast cancer"

Principal Investigator
A/Prof Elgene Lim

ANNUAL RESEARCH GRANT 3 – \$40,000

"Targeting the ASIC1 a channel as a novel pathway of donor allograft cardioprotection with Hi1a, a disulphide-rich funnel web spider venom peptide"

Principal Investigator
A/Prof Kumud Dhital

ANNUAL RESEARCH GRANT 4 – \$40,000

"Metabolic Monitoring and the Microbiome in Gastrointestinal Disease Study (3M-G study)"

Principal Investigator
Prof Mark Danta

ANNUAL RESEARCH GRANT 6 – \$40,000

"Investigating the genetic causes of platelet disorders in the Sydney Platelet Group"

Principal Investigator
Dr Joanne Joseph

ANNUAL RESEARCH GRANT – \$40,000

"The TGF- β superfamily cytokine Macrophage Inhibitory Cytokine-1 (MIC-1) protects from development of prostate cancer"

Principal Investigator
Prof Samuel Breit

ANNUAL RESEARCH GRANT 8 – \$40,000

"PRIMARY TRIAL—Can combined multiparametric MRI and PSMA PET imaging replace prostate biopsy in the primary diagnosis of prostate cancer?"

Principal Investigator
Prof Phillip Stricker & A/Prof Louise Emmett

TRAVELLING FELLOWSHIP 1 – \$10,000

"Clinical and Research Cardiac Electrophysiology Fellowship at the Libin Institute and University of Calgary, Alberta, Canada"

Principal Investigator
Dr William Lee

TRAVELLING FELLOWSHIP 2 – \$10,000

"Clinical and Research Fellowship in Advanced Echocardiography (and Cardiovascular Magnetic Resonance Imaging), Massachusetts General Hospital and Harvard Medical School, Boston, Massachusetts, USA"

Principal Investigator
Dr Mayooran Namasivayam



ST VINCENT'S CURRAN FOUNDATION 2018 - SELECTED RESEARCH GRANT RECIPIENTS



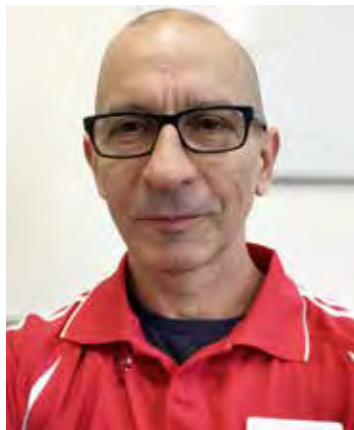
A/PROF CAMERON HOLLOWAY
Cardiologist, Cardiology Department

received \$50,000.00 funding for a researcher to use prolonged monitoring, with the Samsung S-Patch, on patients at St Vincent's who are at risk of heart rhythm disorders.



DR ANTHONY JOSHUA
Medical Oncologist, Medical Oncology

received \$45,000.00 for research on metastatic prostate cancer (PC), to test the genes in men that have undergone treatments at St. Vincent's to determine if certain gene abnormalities are more likely to benefit from various new treatments.



DR GEORGE NTOUMENOPOULOS
Physiotherapist, Physiotherapy Department

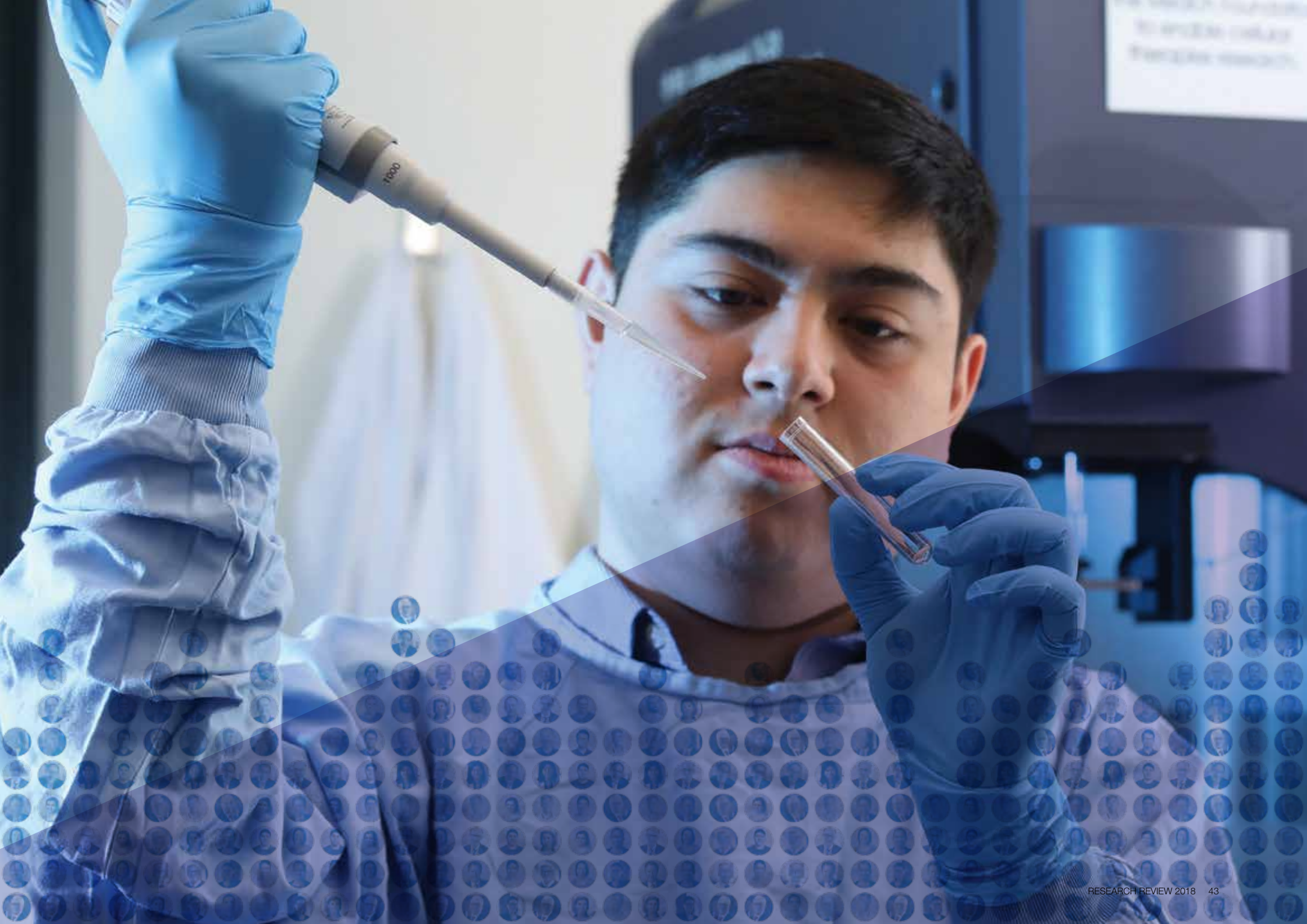
received \$28,890.00 for research comparing Lung Ultrasound (LUS) to standard clinical assessment to evaluate the impact of chest physiotherapy treatments and the impact on medical decision making for the mechanically



DR LOUSE EMMETT & DR BRIAN YUEN
Senior Staff Specialist, Nuclear Medicine

received \$100,000.00 for a prospective evaluation of the ability of prostate-specific membrane antigen positron emission tomography (PSMA PET) to reduce unnecessary prostate biopsies in men at risk of prostate cancer.



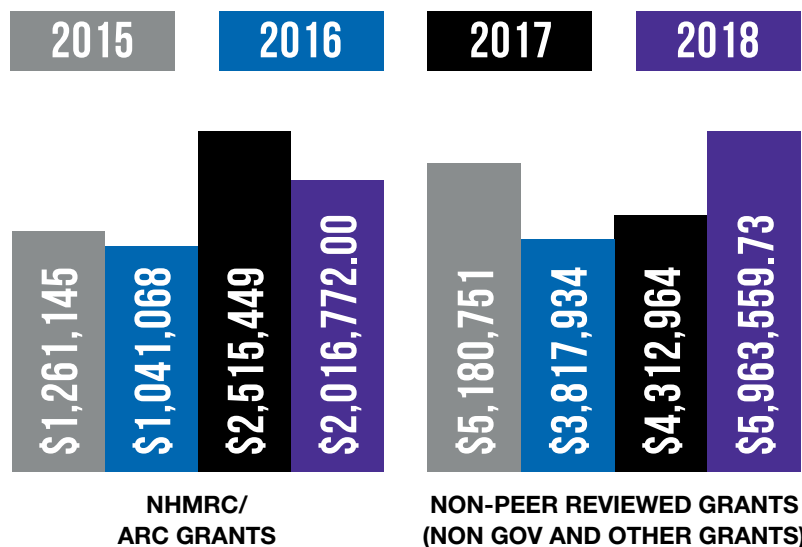








SUSTAINABILITY & GROWTH

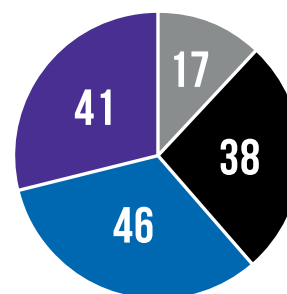




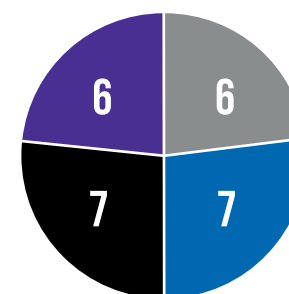
RESEARCH AT A GLANCE



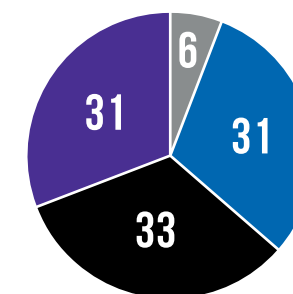
	2015	2016	2017	2018
 JOURNAL PUBLICATIONS	622	842	786	810
 BOOK CHAPTERS PUBLISHED	16	15	19	18
 PRIZES/ AWARDS	12	20	18	26
 UNDERGRADS (MEDICINE)	444	444	323	453
 PHD STUDENTS	100	110	127	91
 HIGHER DEGREE STUDENTS	45	48	39	15



PROJECTS INVOLVING 2 OR MORE SVHA DIVISIONS



PROJECTS INVOLVING VIC/QLD/NSW SVHA COLLABORATION



MISSION FOCUSED PROJECTS

RESEARCH OFFICE METRICS

	2015	2016	2017	2018
HREC FULL SUBMISSIONS	102	103	104	96
HREC LOW/NEGLIGIBLE RISK SUBMISSIONS	129	84	83	89
SITE SPECIFIC ASSESSMENT - FULL SUBMISSIONS	115	131	171	146
SITE SPECIFIC ASSESSMENT FOR LOW/NEGLIGIBLE RISK	111	80	76	52
CLINICAL TRIALS - NEW	54	61	92	86
CLINICAL TRIALS - CONTINUING	222	217	268	328
CLINICAL TRIALS - COMPLETED	21	30	24	24

IP AND COMMERCIALISATION METRICS

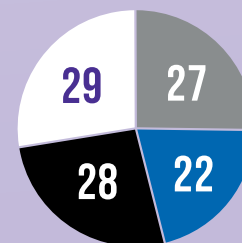
NEW INVENTION DISCLOSURES	2	0	6
PROVISIONAL PATENT APPLICATIONS FILED	2	0	1
ACTIVE PATENT FAMILIES	18	18	18
LICENSE AGREEMENTS EXECUTED	1	1	1
ACTIVE PATENT FAMILIES MANAGED BY SVH TO LICENSED COMMERCIAL PARTIES	11	12	10

2015

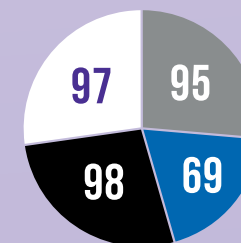
2016

2017

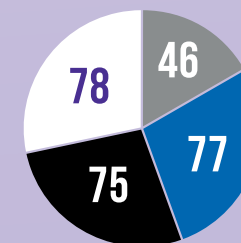
2018



PROJECTS WHERE RESEARCH TRANSLATED INTO PRACTICE OR POLICY



HIGH IMPACT AT NATIONAL/ INTERNATIONAL LEVEL



STRATEGIC PARTNERSHIPS FORMED

\$342,299.00

\$340,647.95

\$453,549.87

\$484,640.86

RO GROSS REVENUE

\$2,267,011.00

\$6,024,740.00

\$6,533,585.00

GROSS COMMERCIALISATION REVENUE (CUMULATIVE)

RESEARCH SUPPORT

AMR CLINICAL RESEARCH PROGRAM

CLINICAL TRIALS 2018

Specialty	Number Of Trials 2017	2018
HIV	16	9
Neurology	18	17
HIV Oncology	3	3
Viral Hepatitis	17	20
Gastroenterology	2	7
Rehabilitation	18	17
Pain	5	5
Drug And Alcohol	2	6
Anal Dysplasia	4	3
ICU	6	7

THE KINGHORN CANCER CENTRE RESEARCH PROGRAM

Department	2017	2018
Oncology	110	100
Haematology	43	42

Phase	Number
I	28
II	56
III	58
IV	11

THE HEART LUNG CLINICAL TRIALS PROGRAM

	2017	2018
Pulmonary Hypertension	14	12
Lung Research	7	7
Heart Failure	3	7
Interventional Heart Failure	7	7

HEART LUNG VASCULAR CENTRE OF EXCELLENCE

The St Vincent's Heart-Lung-Vascular (HLV) Centre of Excellence (CoE) builds on the Campus' existing world-leading specialties of Cardiology, Thoracic Medicine, Cardiothoracic Surgery, Vascular Medicine, Vascular Surgery and Heart and Lung Transplant services to treat and manage patients with highly complex and debilitating conditions, and drive innovation and translational research across the Campus.

Over the last year, St Vincent's has developed a Transformation Program and Roadmap which directs an ambitious program of work for Heart Lung Vascular services, identifying key priority initiatives to grow our referral networks, optimise our case mix and volume of services, expand our highly skilled workforce and continue to lead innovation.

St Vincent's has a long history of delivering the hallmarks of a Centre of Excellence, evidenced by unsurpassed patient outcomes, internationally recognised translational research and innovation and acclaimed training programs. The St Vincent's Darlinghurst Heart Lung Vascular Centre of Excellence will bring together the expertise of our Public, Private and Research Divisions, and strengthen our commitment to Mission through the delivery of superior clinical and patient experience, as well as serving and advocating for the poor and vulnerable through enhancements to new and existing services and models of care.



Prof Christopher Hayward
Cardiologist

WEST STREET DEVELOPMENT

The West Street Translational Research Building 'a golden opportunity'

During the campus master planning process, a site on West Street was identified as a key development opportunity for the research precinct. Aspirations for the site also include permanent accommodation for the radiation oncology services which would provide greater connectivity with the Kinghorn Cancer Centre and expand the clinical research footprint of our medical and haematology oncology programs. We plan to bring together in this new building the clinical research activities currently provided in the AMR Translational Research Centre including clinical consultation spaces, interview rooms, clinical procedure rooms and potentially treatment spaces to augment the existing research areas provided in the Kinghorn Cancer Centre.

These spaces would be flexible through design to accommodate multidisciplinary clinical research to occur with study coordinators and investigators being accommodated on adjoining floors. We also plan to co-locate our Research Support Office in this research-intensive environment.

There is also an opportunity to co-locate our core academic partners including clinical schools and students creating an environment that encourages collaboration, resource sharing centred around learning. The new building will also be a potential site for delivery of the expanded training and education facilities envisioned in this document. Dissemination of knowledge and research findings is central to our research strategy.



Our campus is limited in facilities with the capacity to deliver conferences, seminars, workshops and training programs. We will work with architects to create a range of flexible spaces to provide a range of teaching and learning spaces that will catalyse our education and teaching capabilities. Ideally, the building will provide opportunities for industry to interact and engage with healthcare researchers creating an 'Nucleus for Innovation' that facilitates greater external engagement and entrepreneurship by providing incubation space, mentoring of staff and students and accelerate commercialisation of ideas.

PHILANTHROPY – ST VINCENT'S CURRAN FOUNDATION

2017 Endowment Grants - St Vincent's Curran Foundation Grant Review Committee awarded \$1.256 million in Endowment Grants to St Vincent's Hospitals and facilities. These grants provide funding for equipment, innovative medical research and ongoing clinical education. One grant making a real difference has funded Dr Nadine Ezard and Professor Kate Dolan's project to study the safety and efficacy of lisdexamphetamine for the treatment of methamphetamine dependence.

Peter Duncan Neurosciences Research Unit received a boost in research funding from the Pirtek Fishing Challenge where nine thousand anglers participated in the annual fundraising event. The Peter Duncan Neurosciences Unit studies adult stems cells and their role in causing and exacerbating neurological diseases such as multiple sclerosis, Parkinson's Disease and Alzheimers.

The development of a unit dedicated to cellular therapy is being realised with the generous support of the Medich Foundation. The unit will focus on the goal of St. Vincent's Haematology unit becoming Australia's premier unit for cellular therapy and stem cell transplantation. The Medich family have generously supported the purchase of a new state-of-the-art flow cytometry facility to advance our understanding of the various cell populations that occur after Haematopoietic stem cell transplantation. This will simplify and reduce the time spent analyzing cell populations in our precious patient specimens.





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