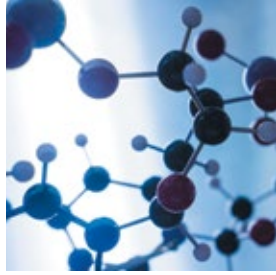


## Supporting Excellence in Clinical Research



### May 2016

Welcome to the 2016 edition of the St Vincent's Clinic Foundation Newsletter.

The Foundation continues its support of research and education on the St Vincent's Darlinghurst Campus and St Joseph's Campus. A list of successful grants, highlighting the talent of the 2016 recipients, is included in this edition.

I would like to take this opportunity to thank our donors. Without their generous support we would not be able to assist the valuable work that our grant recipients undertake. Our researchers are always happy to discuss their research work with any interested supporters.

Over the past 24 years, the Foundation has funded more than 300 projects with grants of over \$13 million.

Mr Peter Falk OAM retired as a Trustee in March 2016 after 22 years of service – thank you to Peter. We also take the opportunity to welcome our three new Trustees: Mrs Elizabeth Lewin, Mr Jim Rayner and Ms Anne Templeman-Jones.

The Foundation will continue to support clinical excellence through research and education with \$1 million in grants for 2017.

Yours sincerely,

Mr A E HARRIS AC  
President, St Vincent's Clinic Foundation

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All donations are tax deductible and can be made in a number of ways.

- An annual donation of \$200
- An annual donation/one off donation of \$ \_\_\_\_\_
- St Vincent's Clinic Foundation has also developed the opportunity for donors to nominate the Foundation in their Estate. Please call us for further information.

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A cheque made payable to St Vincent's Clinic Foundation for the amount of  \$200 or  \$ \_\_\_\_\_

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If you are not already a Friend of St Vincent's Clinic Foundation (no charge) and would love to become a Friend please tick the box. Friends will receive an invitation to the Sandra David Oration, Foundation functions, copies of "Proceedings" and other material related to the Foundation. If you do not wish to receive any material from St Vincent's Clinic, please advise via email to [stvincentsclinic@svha.org.au](mailto:stvincentsclinic@svha.org.au) and we will remove you from our mailing list.



Peter Falk retired from the St Vincent's Clinic Board of Trustees after 22 years.

## THANK YOU PETER FALK

Peter Falk OAM joined the Board of Trustees of St Vincent's Clinic Foundation in 1994 under the presidency of Sr Bernice. In 2000 he was elected to the role of Treasurer of the Foundation, a role he filled for a further 15 years. His contribution to the Foundation was substantial. During his time as treasurer and Chair of the investment committee, the Foundation's investments grew to a total of over \$16 million.

In addition to attending the Trustee meetings and Investment Committee meetings, Peter has hosted lunches for doctors to increase support for the Foundation, worked with finance staff at St Vincent's Clinic on procedures and liaised with investment managers.

Twenty two years is an exceptional commitment to make to an organisation and Peter's dedication to the Foundation has been immense. We thank Peter for his significant contribution and wish him all the best with his future endeavours.

## ST VINCENT'S CLINIC FOUNDATION – 2016 GRANT RECIPIENTS

### SVPHS Ladies' Committee Sr Mary Bernice Research Grant \$150,000

A/Prof John Moore – St Vincent's Hospital Sydney

*Identification of the immune mechanisms associated with response in Haematopoietic stem cell transplantation for Multiple Sclerosis: Eradication of autoimmune T cells and reconstitution of tolerance*

### Adult Stem Cell Research Grant

\$100,000

Prof Richard Harvey – Victor Chang Cardiac Research Institute

*Combination therapies targeting endogenous cardiac stem cells after ischaemic injury*

### Tancred Research Grant

\$50,000

A/Prof Jerry Greenfield – Garvan Institute of Medical Research

*Insulin resistance and fracture risk in the Dubbo Osteoporosis Epidemiology Study*

### K&A Collins Cancer Grant

\$50,000

Prof Reginald VN Lord – St Vincent's Centre for Applied Medical Research

*DNA methylation biomarkers: towards a diagnostic blood test for Barrett's oesophagus and oesophageal adenocarcinoma*

### Thelma Greig Cancer Grant

\$50,000

Prof Samuel Breit – St Vincent's Centre for Applied Medical Research

*Mechanism of action of the TGF- $\beta$  superfamily cytokine MIC-1/GDF15 in treatment of obesity and cancer anorexia/cachexia*

### Froulop Research Grant

\$30,000

Prof Diane Fatkin – Victor Chang Cardiac Research Institute

*Role of truncating titin mutations in dilated cardiomyopathy*

### Annual Grant 1

\$30,000

Dr Kazuo Suzuki – St Vincent's Hospital Sydney

*Development of a new diagnostic assay to identify active and productive infection within HIV-1 latently infected reservoir cells*

### Annual Grant 2

\$30,000

Prof David Ma – St Vincent's Centre for Applied Medical Research

*Using patient-derived induced pluripotent stem cells to identify the genetic drivers of trisomy 21-associated acute leukaemia for the development of novel therapies*

### Annual Grant 3

\$30,000

A/Prof Catherine Suter – Victor Chang Cardiac Research Institute

*The role of epigenetics in high blood pressure*

### Annual Grant 4

\$30,000

A/Prof Mark Danta – St Vincent's Hospital Sydney

*Fibrosis regression in HCV-related cirrhosis*

### Annual Grant 5

\$30,000

Prof Bruce Brew – St Vincent's Hospital Sydney

*Expression and function of BCL 11b in multiple sclerosis patients*

### Annual Grant 6

\$30,000

Dr Nicola Smith – Victor Chang Cardiac Research Institute

*A new cardioprotective factor in left ventricular hypertrophy?*



## 2016 GRANT RECIPIENTS (CONT...)

### Annual Grant 7 \$30,000

Dr Melissa Baysari – St Vincent's Hospital Sydney  
*Implementation of drug-drug interaction alerts: An investigation of burden on prescribers*

### Annual Grant 8 \$30,000

A/Prof Kumud Dhital – Victor Chang Cardiac Research Institute  
*Ex Vivo Perfusion to optimise donor organ quality in multi-organ retrieval*

### Multidisciplinary Patient Focused Research Grant 1 \$25,000

Dr Jed Duff and Dr Aaron Conway – St Vincent's Private Hospital Sydney  
*Maintaining normoTHERMIa during SEDation: The THERMISED pilot study*

### Multidisciplinary Patient Focused Research Grant 2 \$25,000

Ms Julie Labra and Ms Natalie Mohr – St Joseph's Hospital  
*The impact of nutrition and swallowing on patients gastrostomy / PEG decision-making in Motor Neurone Disease (MND)*

### Multidisciplinary Patient Focused Research Grant 3 \$25,000

Ms Weihong Zhang – St Vincent's Hospital Sydney  
*A transfer training program to reduce falls in cognitively impaired older adults with higher level gait disorders: A pilot study*

### Multidisciplinary Patient Focused Research Grant 4 \$25,000

Miss Danielle Gately – St Vincent's Hospital Sydney  
*A study evaluating the feasibility and acceptability of the Modified Kimberley Indigenous Cognitive Assessment (mKICA) to Aboriginal people attending an acute tertiary hospital*

### Multidisciplinary Patient Focused Research Grant 5 \$23,000

Prof Kim Walker – St Vincent's Private Hospital Sydney  
*A prospective study assessing the incidence of Deep Venous Thrombosis (DVT) in low-risk patients with 6 weeks non-weight bearing period following elective foot or ankle surgery*

### Multidisciplinary Patient Focused Research Grant 6 \$25,000

Ms Cindy Tan – St Vincent's Hospital Sydney  
*A pilot study evaluating functional, cognitive and nutritional changes during the first 3 months post-baematopoietic stem cell transplant*

### Travelling Fellowship \$10,000

Dr Gayathri Kumarasinghe – St Vincent's Hospital Sydney  
*Clinical Fellowship in Adult Congenital Heart Diseases/Pulmonary Hypertension at Oxford University at Oxford University Hospitals, UK*

- 2015 Clinical Excellence Award – JMO/Registrar – Dr Juan Paulo Panti \$1,500
- 2015 Clinical Excellence Award – Nursing – Ms Margaret Butler \$1,500
- 2015 Clinical Excellence Award – Allied Health – Mrs Tania Gardner \$1,500
- 2015 Clinical Excellence Award – Scientist – Dr Mark Hicks \$1,500
- 2015 Clinical Excellence Award – Emerging Researcher – Mr Brendan Clifford \$1,000

## DONATE ONLINE

Did you know you can now donate to the Foundation online? It's a fast, secure and easy way to donate and we will email you a receipt straight away.

Visit [www.stvincentsclinic.com.au](http://www.stvincentsclinic.com.au) and look for the button below to help support our important research.

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*I really appreciate your support for the research I am conducting into HIV. The funding is vital to continuing with the research. It would be difficult to expand my research at St Vincent's Hospital without the help of the St Vincent's Clinic Foundation. Thanks again for your support.*

Dr Kazuo Suzuki  
 Senior Hospital Scientist  
 St Vincent's Hospital Sydney

## WOULD YOU LIKE TO RECEIVE THIS NEWSLETTER ELECTRONICALLY?

The St Vincent's Clinic Foundation Newsletter is now available in electronic format via email.

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## A NEW CARDIOPROTECTIVE FACTOR IN LEFT VENTRICULAR HYPERTROPHY?

Left ventricular hypertrophy is a condition in which the muscle wall of the heart's left ventricle becomes thickened, placing increased pressure on the heart. According to Dr Nicola Smith, Group Leader of the Molecular Pharmacology Group at Victor Chang Cardiac Research Institute, left ventricular hypertrophy is an adaptable condition often found in elite athletes and pregnant women due to the increased demand on the heart and oxygen supply placed on the body at these times. In these instances the heart usually adapts before returning to normal once the demand on the body ends. However, left ventricular hypertrophy can also be caused by high blood pressure and if not corrected, can get to a point where the heart can't compensate, resulting in heart failure and the need for a heart transplant.

Through the project "A new cardioprotective factor in left ventricular hypertrophy?", Dr Smith and her team believe they have found a gene that may be protective in the environment and they aim to find out more about it.

"The work that we're doing at the moment

is to understand exactly what the role of the gene is in the development of high blood pressure and also the development of left ventricular hypertrophy. We're also trying to design drugs that might be able to target the protein made by the gene so that we can see what kind of intervention we'd be able to do to treat the disease." said Dr Smith

"The gene target that we're looking at is interesting because there is very little known about it but it comes from a family of the most popular and easily targeted proteins in the body. What we really need to know is: is this a genuine target for the treatment of left ventricular hypertrophy and hypertension? If it is then we know that we can design drugs quite readily that will be able to attack it. Complimentary work that we are doing in addition to the work funded by the grant is to actually design new drugs and we use a computational approach to do that."

The project was awarded an annual grant by the St Vincent's Clinic Foundation and according to the Dr Smith, this has been vital to the project:



*Dr Nicola Smith, Group Leader of the Molecular Pharmacology Group at Victor Chang Cardiac Research Institute*

"The research grant has been really important because it's provided us with the funding to use an animal model. We don't have any drugs that act on this target as yet. We have no way of tinkering with it to understand what its removal or increasing its activity would do. Without being able to create a genetically modified animal to look at the effects, in this case in the mouse, we wouldn't be able to understand its role in the body. We can look at mice we have generated with and without left ventricular hypertrophy and ask: If you delete the gene from the body, will the mouse be better off? We could then use that information to work out whether we would need a drug that turned the gene on or off and what kind of regime you would need to use. This is an important step in working out whether it's a viable target."

## A TRANSFER TRAINING PROGRAM TO REDUCE FALLS IN COGNITIVELY IMPAIRED OLDER ADULTS WITH HIGHER LEVEL GAIT DISORDERS

Falls are a significant problem among elderly people and those with cognitive impairment tend to fall more frequently and suffer more severe injuries. Although falls prevention programs have been developed to target cognitively intact elderly people, they are not effective for those with cognitive impairment. Through the project "A transfer training program to reduce falls in cognitively impaired older adults with higher level gait disorders", Weihong Zhang, Occupational Therapist at St Vincent's Hospital Sydney, aims to develop a program to assist patients with mild to moderate cognitive impairment to reduce falls. While working with cognitively impaired patients, Ms Zhang noticed that most falls occurred during transferring – getting out of bed, onto a chair or going to the bathroom, and she was inspired to investigate ways to train patients to make these moves safely.

Two of Ms Zhang's patients inspired her research: "One patient was a retired

engineer in his 80s with mild cognitive impairment. When I assessed his walk I noticed it was ok until he approached the door when his gait became very shuffly. I consulted research in this area and trained him to take big steady steps as he approached things and it worked. Another patient with the same shuffling gait came in and I tried the same technique on him. His cognition was more impaired, but it worked! Both of these patients gave me confidence to move forward with the idea."

Ms Zhang consulted a multidisciplinary team including geriatricians, Dr Sandy Beveridge, Dr Patricia Reye, and physiotherapist Joseph Potts with support from Dr Josephine Gwynn. Together they identified a gap in falls prevention options for people with cognitive impairment and decided to target the area for research.

The project will use two techniques in the pilot study – errorless learning and spaced retrieval – to tap into implicit memory,

requiring little to no conscious effort and allowing cognitively impaired patients to learn new skills

The project was awarded a Multidisciplinary Patient Focused Research grant by the St Vincent's Clinic Foundation. "It has inspired the whole department, everyone feels so encouraged. With a busy case load it is not easy to get research done." Says Ms Zhang.



*Weihong Zhang (occupational therapist), Joseph Potts (physiotherapist), Dr Josephine Gwynn (Allied Health Research Unit), Dr Sandy Beveridge (geriatrician).*



## INVESTIGATING CHANGES IN THE IMMUNE SYSTEM TO HALT THE PROGRESS OF MULTIPLE SCLEROSIS



*A/Prof John Moore is conducting research into halting the progression of Multiple Sclerosis*

Blood stem cell transplantation offers patients suffering from severe Multiple Sclerosis a chance to prevent the devastating progression of the disease, particularly where no other therapeutic options are available.

Recipient of the 2016 SVPHS Ladies Committee Sr Mary Bernice Research Grant A/Prof John Moore from St Vincent's Hospital Sydney, aims to investigate how the immune system changes after Stem Cell Transplant for autoimmune conditions. This will increase the understanding of disease correction and discover new therapies to eradicate self-destructive cells and promote regeneration of a new immune system. A/Prof Moore explained that, although stem cell transplants have been performed in his department for the past 15 years it has been unclear whether the immune system actually changes after treatment. Over the past three years, worldwide

research suggests that the immune system does change and the current project aims to find out how.

For the project "Identification of the immune mechanisms associated with response in Haematopoietic stem cell transplantation for Multiple Sclerosis eradication of autoimmune T cells and reconstitution of tolerance." A/Prof Moore and his team have been collecting specimens from patients for the last 12 months or more at three month intervals to show how their blood immune system changes. They then intend to take the research further than what others have done by looking at the specific cell types to identify which ones are the most important in changing the immune system, which cells are responsible for making a previously intolerant immune system become tolerant.

A/Prof Moore hopes to help Multiple Sclerosis sufferers by halting relapses of the disease.

"Each time a patient's immune system flares up and attacks their nerves or spinal cord they get a little bit worse. Most of the patients are young people with children who obviously don't want to get any worse, don't want to become more disabled. What we hope is that we can stop them from relapsing." Current research suggests that 80% of patients will not have a relapse in the four to five years after treatment and about 30-40% of patients can actually improve their function. According to A/Prof Moore, "That means they might have walked with a stick and no longer need a stick." The figures are consistent with research performed overseas.

Despite the encouraging results from treatment, Stem Cell Transplants are not easy to perform. "Basically you are giving chemotherapy to someone who doesn't have a tumour and there are ethical issues with that. What we are doing with the research may change the way we do it.

We may be able to give less chemotherapy and then infuse more anti-inflammatory cells that we think may be contributing to the improvement." said A/Prof Moore.

Of interest is a gland located in the chest that creates new T Cells or immune cells, the thymus. While the gland is very large in children, it gets smaller with age but continues to function. The research hopes to look at ways to make the thymus produce more T cells to try to find out which ones are T regulatory cells and find out which type of them makes the most difference. Researchers will look at different cocktails of inflammatory hormones, known as cytokines, to see how they make a difference to T regulator cells and how that correlates with patients getting better.

Ultimately, the research aims to identify drug or cell based treatments to reduce the risk to patients and increase the availability of treatment.

A/Prof Moore is very grateful for the funding from St Vincent's Clinic Foundation. It has allowed them to have two people working to identify the cells that they think will be more important for response in patients after Stem Cell Transplantation.

*"The thing that the Foundation grants do is allow people who still see patients and can see there is a need for research to access funds. It makes a massive difference to us and we have been very lucky to have been the recipients of Foundation grants. It has kept our staff going in a difficult research environment."*



## THE 2015 SANDRA DAVID ORATION Hopes and dreams for an ideal Australia

Journalist and speaker Geraldine Doogue AO delivered the annual Sandra David Oration for 2015 at St Vincent's Clinic on 20 September 2015. The topic of this year's oration was "Hopes and dreams for an ideal Australia."

Ms Doogue set the scene with a video of her two young grandchildren, whom she calls "representatives of a generation who will inherit the Australia that we build today", before proposing to do some "realistic dreaming about what might be possible in this country of ours" and asking: "how might we thrive?"

The first dream she shared was one of peace: "I think my role as an elder is to keep a constant vigil about any subtle drift towards war or a growing appetite for the glamour around war." She asked the audience to consider the 100 years of peace in the 1800s and the complacency that led people, catastrophically, into World War I.

Hopes for a worldly Australia that looks at the big picture were also included in her dream:

"I also yearn for these children to grow up in and contribute to an Australia that thinks big, that keeps its eye on the big map. That they live among elders that think it is right, not hubris, to participate in conversations that tilt at us being a great country."

"I think it's not an accident that we are where we are right now. That underneath all that Aussie, Aussie, Aussie bravado, we have created a very interesting young society here, based on an incredibly old one, and I think we need to explore it and understand it more in order to keep it going and to make us fit for purpose."

Australia's position in Asia was identified as an asset that should be recognised and Ms Doogue called on Australians to recognise the benefits of living

in the "sweet spot" that is Australia during the Asian century and to draw on the opportunities for collaboration and innovation available within the neighbourhood.

A fairer society was another hope that she shared for her grandchildren's future:

"I'd like these children to grow up in a fairer society as part of my hopes and dreams for an ideal Australia; where money doesn't open all doors, yet where the generation of wealth is prompted from our brains and institutions like this are really praised. Where there is a genuine pride in these achievements, just as much as there is in who wins the Dally M or the Brownlow Medal."

She expressed hope that the ideal of opportunities for little Aussie battlers would remain a part of our society:

"If we sideline this honouring of the little Aussie battler as a guiding ethic, I think we'll lose something of our very soul, our young soul. It matters, in other words, the myth that one fosters in the country and the

language that one uses to reach each other and capture an intangible essence. I want a deep seated embedding of the thought that inequality is bad, very bad for communities."

Ms Doogue also expressed hope for a lifestyle that includes time for rest and personal connections. "I'd like more settled households, ones where the 24/7 open all hours culture has been tamed... The creation of families that are real, that realise our lives, our 21st century lives, that express a hope of what we can do in the future."

She concluded the oration with a final hope for the Australia of the future:

"We really have a lot to be proud of in this place, but I think we are on the cusp of a lot of potential and now is the time to test the potential, to take the chance so that we really do emerge as a great nation, and that is what I would like to bequeath to those two little kids, and I am sure Sandra David would thoroughly approve."



A/Prof Brett Courtenay with Geraldine Doogue at the 2015 Sandra David Oration at St Vincent's Clinic

For further information about Sandra David Oration visit:  
[www.stvincents.com.au/whats-happening/events](http://www.stvincents.com.au/whats-happening/events)