

Annual Report

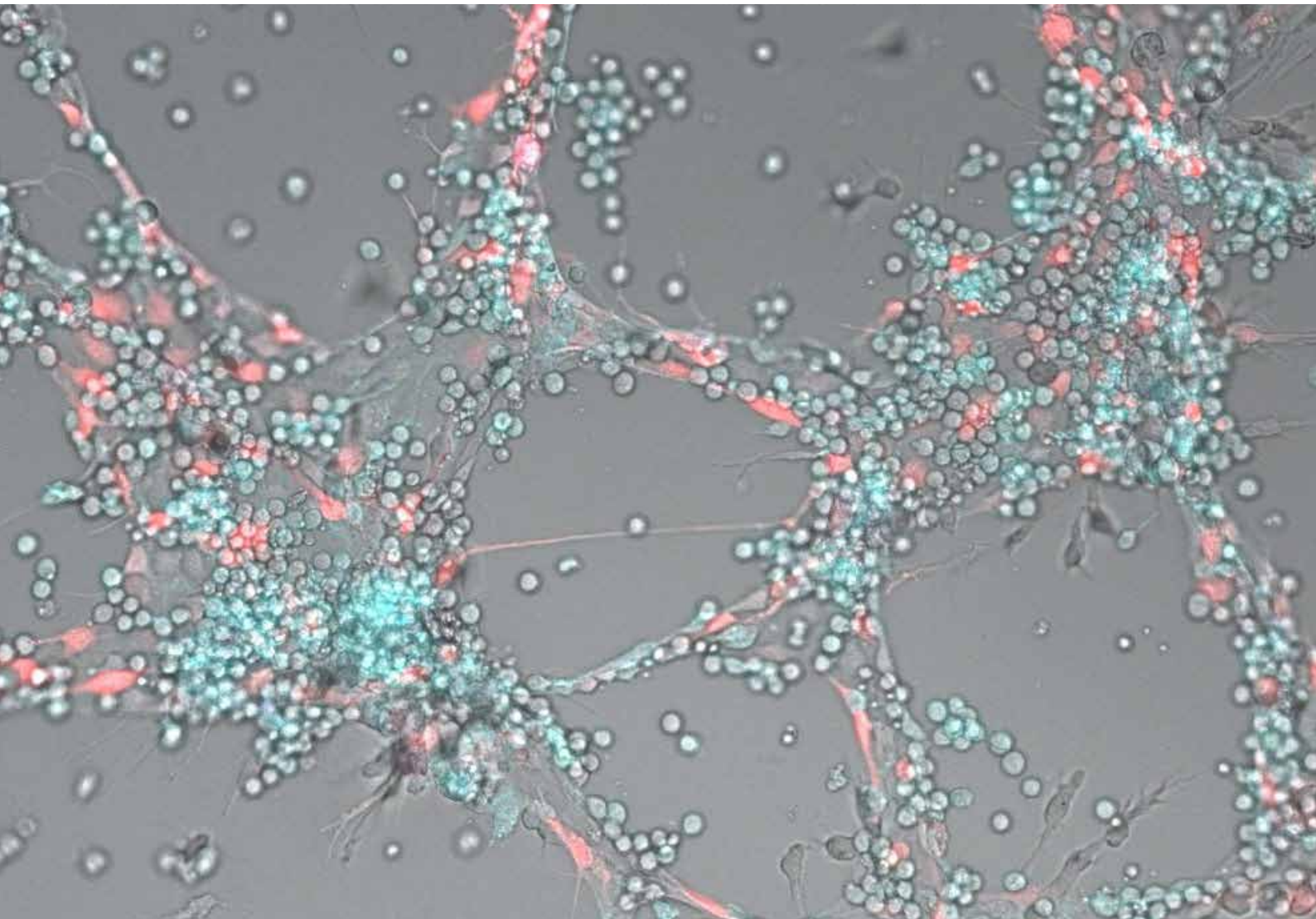
2018

stemcellsaustralia.edu.au

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STEM CELLS AUSTRALIA BRINGS TOGETHER AUSTRALIA'S PREMIER LIFE SCIENTISTS TO TACKLE THE BIG QUESTIONS IN STEM CELL SCIENCE.



Vision Statement

To apply our understanding of stem cells to harness their potential for diagnostic, therapeutic and biotechnological purposes.

Message from the Chairman

In the short space of two decades, stem cell science has become a tool used universally and applied in hundreds of clinical, scientific and practical ways. We are proud of the contributions made by Stem Cells Australia's researchers in these advances.



This will be the final annual report from Stem Cells Australia (SCA). It has been a privilege to get to know the leadership team of SCA for the past year, working on two fronts: to ensure that there is a clear legacy of research excellence and public involvement at the highest level, and that this is transformed into a commitment to stem cell science by Government

and the community. Can I, from the start, thank Melissa Little, Christine Wells and Megan Munsie for their inspired leadership of SCA, and also thank Graeme Blackman, Jane Halton and Michelle Haber for joining the Independent Board with me to work for a future vision of active, well supported and relevant stem cell research in Australia.

For SCA, 2018 was a year of repositioning and growing. Through additional funding from the Australian Research Council, SCA was able to shift the research focus from discovering how to regulate stem cells to applying our knowledge to harness their potential for diagnostic, therapeutic and biotechnological purposes. The strong scientific leadership shown by Melissa Little and Christine Wells was integral in securing allocated funding from the Federal Department of Health to create national teams of experts for specific diseases in 2018 and beyond. Looking to the future, SCA also grew its network nationally and internationally and now includes ten universities and eight medical research institutes, with more than 330 researchers across Australia.

The importance of SCA rests on the quality of its science. This report shows that during 2018, SCA researchers were recognised by prestigious awards and invitations to present their work at numerous national and international meetings.

Many of the articles from SCA have appeared in leading peer reviewed journals. Eight postgraduate students completed their studies and we wish them well as they embark on the next stage of their careers. The newly formed Early Career Researcher (ECR) committee grew in 2018, emphasised the value of mentoring, and created the successful ECR Exchange Platform to enable PhD students and post-docs to exchange between laboratories to learn new methods and promote networking and career development.

2018 also saw the International Society for Stem Cell Research Annual Meeting in Melbourne, and SCA research was well represented in the plenary and invited speakers. In partnership with the National Stem Cell Foundation of Australia (NSCFA) and the Australasian Society for Stem Cell Research, SCA ran a successful Public Forum with over 350 attendees, providing a unique opportunity for 20 ECR Ambassadors to share their stem cell research with the public.

SCA also played a major role in community education, where Megan Munsie hosted community forums and created tailored resources for healthcare professionals and their patients about potential stem cell treatments. SCA has also provided expertise and commentary on policies about advancing stem cell research into clinical practice and continued to be a leading innovator in patient advocacy, something that I believe is essential in the future.

As this will be the final report, it is appropriate that we congratulate every person associated with Stem Cells Australia. It has been a privilege to be the Chair of the new Independent Board, but the honours go to every scientist and clinician, every helper, and every patient who has aided SCA in taking the field forward. I hope that we will see yet more support for stem cell science over the coming decade, to ensure Australia can continue to be a major player internationally for the benefit of our academics, our industries and our patients.

Professor Bob Williamson
Chairman, Independent Board

Message from the Program Leader

After eight years of support from the Australian Research Council, and after another great year of outcomes, I am pleased to present this final Annual Report from Stem Cells Australia.



Across the duration of our funding from the ARC, we have graduated in excess of 50 PhD students, published more than 950 stem cell manuscripts and secured more than \$120 million in research funding.

This year we welcomed \$3 million funding from the Federal Department of Health via the Medical Research Future Fund Accelerated Research Program, to build national

teams of experts to take stem cell research from the laboratory into the clinic.

The network prepared for future horizons both around stem cell-based synthetic biology, with the development of a Centre of Excellence bid, and around stem cell medicine, with a recent application for national funding from the Australian Government Frontiers in Health and Medicine Program.

Nationally, the past year has been a big one for stem cell research in Australia. Melbourne hosted the 2018 International Society for Stem Cell Research Annual Meeting and Stem Cells Australia research was very well represented; Jane Visvader and Patrick Tam were on the Plenary podium, and Andrew Elefanty, Peter Currie, Enzo Porrello and Jose Polo were invited to speak during the meeting. Over 20 of our members were also selected to present their research, following a competitive application process. We were honoured to see our very own Megan Munsie awarded the 2018 ISSCR Public Service Award, in recognition of her outstanding contributions of public service to the fields of stem cell research and regenerative medicine.

Indeed, SCA members continue to be the recipients of many prestigious awards, and I offer my congratulations to them all.

I commend Jose Polo, who was awarded an ARC Future Fellowship, Richard Harvey on his NSW's Premier Prize and Enzo Porrello and Heather Lee on their Metcalf Prizes, which recognise exceptional mid-career stem cell researchers.

In 2018 we welcomed 23 new Investigators to the network, bringing in leading experts in bioengineering, nanotechnology, stem cell biology, advanced molecular analysis and clinical research into the initiative.

Within the network itself, there has been considerable effort put in around networking, communication and scientific strategy. Helen Braybrook has brilliantly managed SCA's website and social media content, as well as provided sound support to events that highlight our science. This year we welcomed Verity McDonald and Lauren Hill to the SCA Management Team, and farewellled Sandani Udabage, thanking her for her valuable work since joining the initiative in 2014. I thank the members of the National Steering Committee for their input and our Independent Board for their insight and support. I would particularly note the enthusiasm and engagement of the early career researchers, ably represented by Aude Dorison.

I cannot end without thanking the tireless and dedicated efforts of Christine Wells and Megan Munsie. Christine, as Deputy Program Leader, not only led the thinking, planning and execution of the Centre of Excellence proposal but has always had my back for everything that has needed to be achieved. Megan has continued to lead internationally in ethics, engagement and policy and constantly managed the outward face of Stem Cells Australia.

As we approach the end of this Special Research Initiative, I am proud to be able to say that the investment of the ARC has prepared the field of stem cells for a future in regenerative medicine, disease modelling and designer cells both in Australia and internationally. As such, Stem Cells Australia will have a lasting impact on the future of medicine.

Professor Melissa Little
Program Leader

Positioning Australian Stem Cell Research for the Future

Stem Cells Australia welcomed \$3 million from the Medical Research Future Fund Accelerated Research Program, to build national teams of experts to take stem cell research from the laboratory into the clinic.

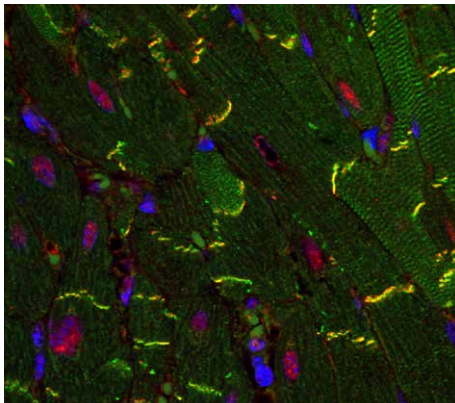
Stem cell science has now advanced to the stage where it can impact future medical treatments. We can now start to use stem cells to assess whether a new drug or gene therapy is safe and effective, as well as explore how to repair parts of the body through stem cell therapy.

Two initial projects will focus on using stem cells to test new ways to save the sight of children with rare genetic defects that slowly cause blindness, and to pioneer new approaches for the treatment of congenital heart disease.

Stem Cells Australia's expert teams of clinicians and scientists will be supported by partnerships with key Australian charities including Genetic Cures Australia and HeartKids.

Receiving this funding was possible through the one-year extension of ARC funding granted in 2017, which has enabled Stem Cells Australia to reposition its research portfolio to be ready for medical applications.

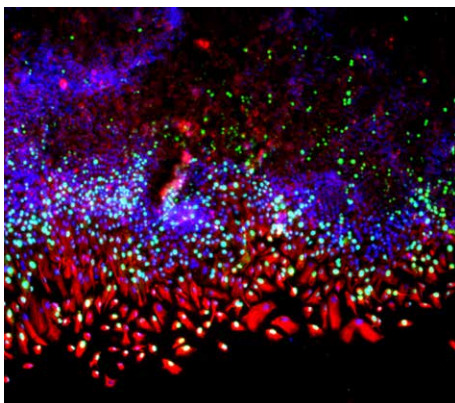
Additional research teams will be announced in 2019.



Understanding heart disease, improving repair and reconstructing tissues for kids with heart defects

Enzo Porrello (MCRI), Richard Harvey (VCCRI, UNSW), James Hudson (QIMR) and colleagues.

More than 2000 children are born with major heart defects in Australia each year. While many can be saved via early and invasive surgical intervention, in many instances, life span is limited and quality of life restricted. It is possible to generate human heart muscle from pluripotent stem cells. This provides the possibility of engineering contractile human heart muscle that may be able to improve the long-term outcome for affected children.



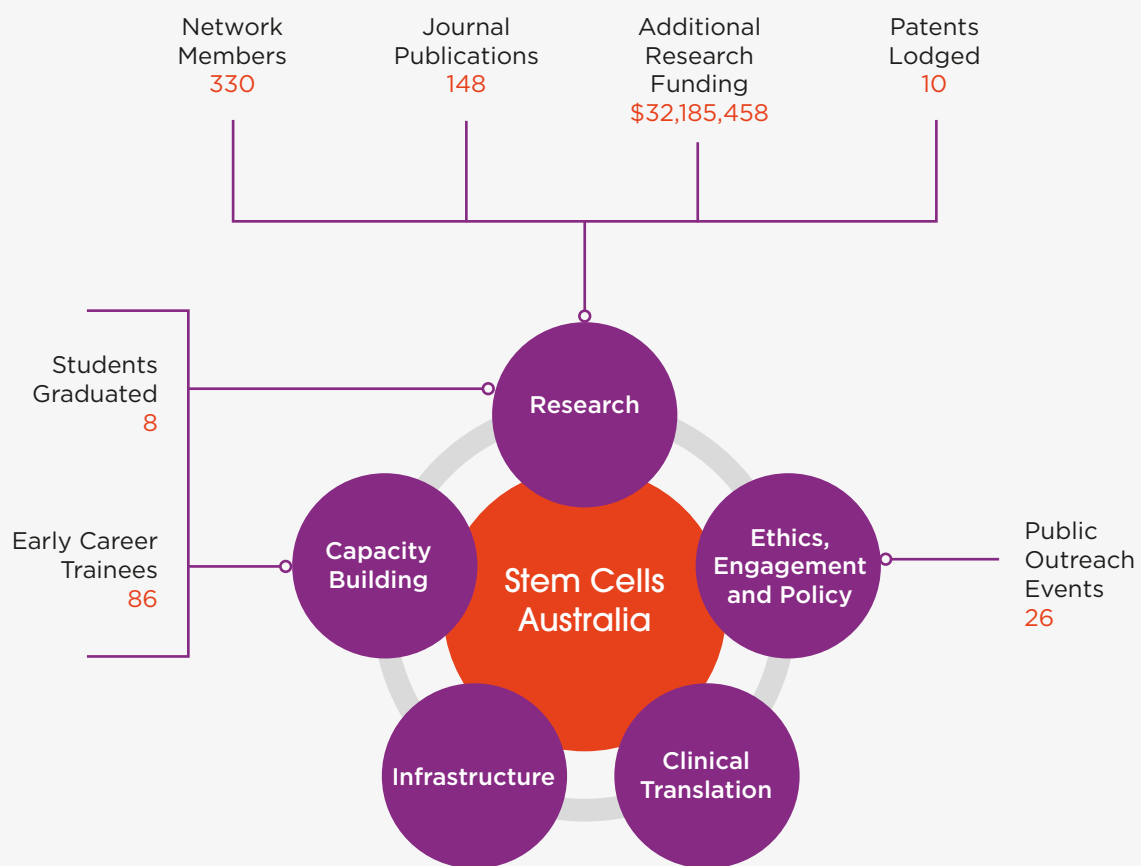
Towards novel treatments for genetic causes of blindness

Alex Hewitt (UTAS) & Alice Pebay (CERA, UoM). Supported by Genetic Cures Australia

The project aims to investigate how to save the sight of children with rare genetic defects that slowly cause blindness. The project involves using patient-derived stem cells as an accurate disease model of a specific genetically-inherited disease. The team aims to modify the genetic mutation using gene editing tools and if successful, this innovative technology will have widespread application in many genetic and congenital diseases that affect millions of people.

Stem Cells Australia Highlights

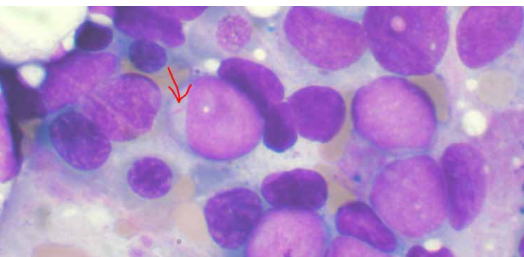
Throughout 2018, Stem Cells Australia's researchers and students have continued to deliver high quality research outputs, expand on our network of interdisciplinary researchers and collaborators, secured substantial external funding and continuously engaged with the community. The impact of our research and technological advances was reflected in 10 new patents lodged by our Investigators.



Stem Cells Australia achievements during 2018

Research Performance

Stem Cells Australia researchers and students contributed to significant discoveries, continuing to strengthen Australia's reputation as a leader in stem cell science. In 2018, 148 articles were published, including 32 in prestigious journals such as *Cell Stem Cell*, *Nature*, *Nature Biotechnology*, *Nature Communications* and *Science*.



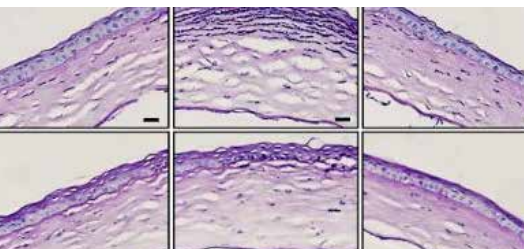
Childhood leukemia better understood through international research collaboration

An international collaboration between Prof Christine Wells and Dr Jarny Choi (UOM), and the University of Glasgow, has comprehensively analysed the differences between the childhood and adult forms of acute myeloid leukaemia, demonstrating that the childhood form is biologically different to that of the adult. Researchers hope that new and more specific treatments for the childhood form of leukemia can now be investigated.



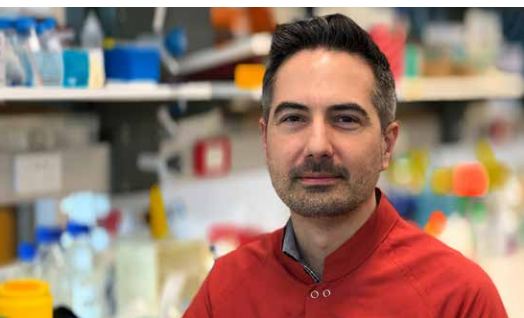
Reading the story of the developing human heart

Dr Nathan Palpant (UQ) and A/ Prof Joseph Powell (Garvan, UNSW) report the most in-depth study to date of exactly how human stem cells can be turned into heart cells. The work, published in *Cell Stem Cell*, involved measuring changes in gene activity in tens of thousands of individual cells as they move through the stages of heart development. This new knowledge will support researchers to accurately and reliably grow mature heart cells in the lab, greatly aiding future research into heart development and disease.



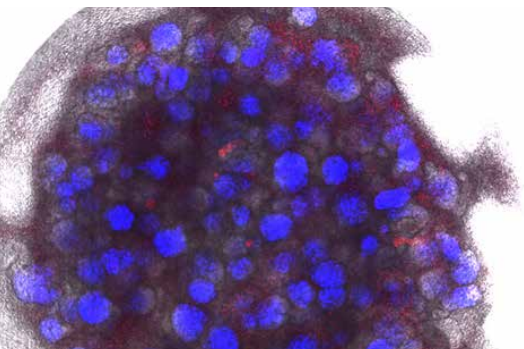
Wound healing corneal stem cells observed in real-time

Profs Nick Di Girolamo (UNSW) and Stephanie Watson (UoS), observed cell growth and movement following a corneal injury in real-time in live animals using minimally invasive microscopy. Published in *Stem Cell Reports*, the findings have profound implications for understanding the basic biology of the cornea and for devising new strategies to treat corneal diseases. Indeed, this study may inform researchers in the future on how to best use limbal epithelial stem cells to regenerate the cornea following injury.



Link between neuronal activity and myelination uncovered

Collaborative research has demonstrated for the first time that electrical activity within axons provides a precise cue for determining which neurons in the central nervous system are to be myelinated. Researchers Dr Toby Merson (ARMI, Monash) and Prof Trevor Kilpatrick (Florey, UOM) and their teams published the findings in *Nature Communication*. The study will contribute to the development of therapies aimed at treating and even reversing the damage that occurs in neurodegenerative diseases, particularly in Multiple Sclerosis.



Kidney disease breakthroughs for Melbourne researchers

Research from Prof Melissa Little's lab (MCRI) into both kidney disease and regenerating kidney tissue resulted in significant breakthroughs in 2018. PhD student Dr Tom Forbes and ECR Dr Sara Howden led a study to correct a disease gene in a kidney in a dish (*Am J Hum Genet*), Dr Lorna Hale showed how accurately she could turn stem cells into human kidney glomeruli (*Nature Communications*) and, in collaboration with Dr Belinda Phipson from A/Prof Alicia Oshlack's bioinformatics team, they assessed how reliably they can generate a kidney from stem cells (*Nature Methods*). The team also collaborated with international researchers to successfully transplant of a stem-cell derived mini-kidney into a living mouse (*Stem Cell Reports*).

Postgraduate Completions

We would like to congratulate the following postgraduate students who completed their studies in 2018.



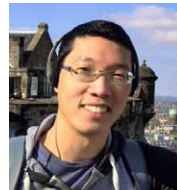
Hananeh Fonoudi (PhD, VCCRI) supervised by Richard Harvey (VCCRI, UNSW). Thesis: *Human Induced Pluripotent Stem Cells as a Model of Complex Cardiac Disorders*.



Nona Farbehi (PhD, VCCRI) supervised by Richard Harvey (VCCRI, UNSW) and Robert Nordon (UNSW). Thesis: *Single cell analysis of adult cardiac stromal cells*.



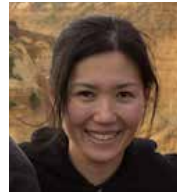
Jaber Firas (PhD, ARMI, Monash) supervised by Jose Polo (ARMI, Monash) and Andrew Laslett (CSIRO). Thesis: *Towards an understanding of induced cellular plasticity*.



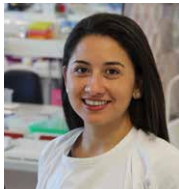
Edward Huang (PhD, UoM) supervised by Christine Wells (UoM). Thesis: *Characterisation of innate immune gene activities in rested and stimulated states*.



Laura Galvis-Vargas (PhD, ARMI, Monash) supervised by Christophe Marcelle and Peter Currie (ARMI, Monash). Thesis: *Modulation of Muscle Regeneration and Repair*.



Elizabeth Qian (PhD, MCRI) supervised by David Elliott and Ed Stanley (MCRI). Thesis: *Pluripotent stem cell model of pulmonary arterial hypertension*.



Pamela Kairath Oliva (PHD, MCRI) supervised by Melissa Little (MCRI). Thesis: *Unveiling the biology of collecting duct epithelium repair and regeneration*.



James Spyrou (MSc, UoM) supervised by Alexandra Harvey and David Gardner (UoM). Thesis: *Metabolic and transcriptomic analyses reveal regulation of human induced pluripotent stem cell physiology by oxygen during reprogramming and in culture*.

Patents

- Chong, J, Harvey, R: *Cardiac Treatment*, Australian Provisional Patent Application No. AU2018902126
- Harvey, R., et al: *Methods, kits and devices for promoting cardiac regeneration*, USPTO No. 10,017,574
- Gray, P, Monteiro, MJ, Munro, TP, Prowse, ABJ: *Release media*, USPTO No. 9,587,104
- Walker, TL, Bartlett, PF: *Latent neural stem cell population*, USPTO 12/595,220
- Petrou, S: *Antisense Oligonucleotides Targeting Scn2a for the Treatment Of Multiple Sclerosis*, U.S. Provisional Application. Feb 2018. 62/629,984
- Petrou S, Marcusson E: *Compositions and Methods for Increasing Expression of Scn2a*, U.S. Provisional Application. Jan 2018. 62/618,473
- Porello, E, et al: *Skeletal muscle cell maturation*, Australian Provisional Patent Application No. AU2018902910
- Little, M, Vanslambrouck, J, Woodard, L, Wilson, M: *Genetically induced nephron progenitors*, PCT/AU2018/050502
- Little, M: *Stem cell composition and method 1*, PCT/AU2018/051178
- Little, M: *OrgGloms: composition and method*, Australian Provisional Patent Application No. AU2018902656

Research Training and Capacity Building

Stem Cells Australia is committed to developing and supporting the growth and training of Australian stem cell researchers. In 2018, 38 Early Career Researchers joined the initiative. We also welcomed 21 new PhD candidates into the network and celebrated 8 students who completed their PhD qualifications.

Exchange Platform Program

Thanks to SCA's support, the ECR Committee was able to create a new exchange platform for ECRs within the network. The aim of the program was to enable ECRs to spend time in another laboratory to learn new methods and promote networking and career development. This program will give Dr Grace Lidgerwood (from Prof Alice Pebay's lab, CERA, UoM), the opportunity to travel to Sydney and develop skills in the bioinformatics analysis of single cell RNA sequencing datasets in A/Prof Joseph Powell's lab (Garvan, UNSW).



Early career researchers present at international conferences

Many SCA ECRs had the opportunity to present their research at international conferences. Dr Thierry Jarde (Monash) presented his work at the EMBO-EMBL Symposium in Heidelberg, Germany. Vaibhao Janbandhu (VCCRI) participated in the Young Scientist Presentation at the Leducq Symposium in Paris and Maciej Daniszewski (UoM) presented at the Stem Cells and Antibodies in Drug Discovery European conference.



Scientists promoted to research leaders

SCA was proud to acknowledge ECRs Dr Alex Combes, from the Little lab, and Dr Matt Rutar from the Wells lab, in becoming Team Leaders at MCRI and CSCS, UoM respectively, and Dr Christian Nefzger from the Polo lab becoming a Group Leader at IMB UQ. While there is no simple key to success, all three have shown commitment, inventiveness and leadership skills.



Science Meets Parliament

Dr Jennifer Hollands (Florey) took up an incredible opportunity through SCA to attend the 'Science Meets Parliament' event in Canberra, hosted by Science and Technology Australia. This event is designed to bring together decision makers and Australia's leading STEM professionals. Fellow ECR Dr Richard Mills (UQ) also attended, and both young researchers were able to learn how to influence policy through highlighting their research to politicians.



Mini-brains in a dish and exploring treatments for childhood disease

Dr Sam Nayler, an alumnus of the Wolvetang lab (UQ), is focussed on using brain organoids, to investigate the role of genetic mutations in a rare neurodegenerative disease, Ataxia-telangiectasia. Nayler and the team have taken an important first step towards understanding the disease and screening chemical compounds for treatment. This research has taken Dr Nayler from UQ to Oxford University where he will continue to collaborate with the Wolvetang lab.





Awards and Fellowships

Megan Munsie receives international public service award

Head of the Engagement, Ethics and Policy Program, A/Prof Megan Munsie was awarded the 2018 International Society for Stem Cell Research Public Service Award, in recognition of her many years of outstanding contributions to the fields of stem cell research and regenerative medicine. Megan's work is global in scope, grounded in academic research, and relies on her collaborative partnerships with key community and professional groups to address important ethical and regulatory considerations critical to the advancement of these fields.



Metcalfe Prize winners are healing hearts and understanding cancer

The Metcalfe Prizes for Stem Cell Research are awarded annually to two exceptional mid-career stem cell researchers by NSCFA. A/Prof Enzo Porrello (MCRI) wants to understand why the ability to regenerate heart tissue turns off days after birth, so that he and colleagues can switch it back on to induce repair. Dr Heather Lee (Hudson MRI and University of Newcastle) is studying cells from patients with acute myeloid leukaemia to see how just a few cells can resist treatment. Enzo and Heather will be joining other members of SCA who have been awarded the Metcalfe prize, including A/Prof Jessica Mar (2017), A/Prof James Chong (2016), Prof Christine Wells (2015), Prof Ryan Lister (2015), and Prof Jose Polo (2014).



Richard Harvey awarded prestigious NSW Premier's Prize

The New South Wales Premier's Prize for Excellence in Medical Biological Sciences was awarded to Prof Richard Harvey, from the VCCRI, UNSW. As a world-leading developmental biologist, his discoveries have revealed the genetic mechanisms of heart development and major causes of congenital heart disease in children.



James Bourne recognised for innovative research

Prof James Bourne from ARMI, Monash received the Marshall and Warren Award at the National Health and Medical Research Council's 2018 Research Excellence Awards in Canberra. His research focused on better understanding the complex circuits between the brain and eye, in order to help those recovering from brain injury as well as children experiencing difficulty with their vision. The prestigious event recognises recent outstanding performances in the health and medical research field.



Melissa Little Named Top Australian in Biomedical Science

Prof Melissa Little has received the top Australian award for research, the National Health and Medical Research Council's Research Fellowship Award. Prof Little also received the Elizabeth Blackburn Fellowship (Biomedical) as Australia's highest ranked female in science. Prof Melissa Little is known internationally for her research on kidney development, her kidney organoids and her pioneering studies into renal regeneration.



Fellowships

- Prof Jose Polo (ARMI, Monash) – ARC Future Fellowship
- Prof Alice Pebay (pictured) (UoM, CERA) – NHMRC Research Fellowship
- A/Prof Clare Parish (Florey) – NHMRC Research Fellowship
- Prof Alistair Forrest (UWA) – NHMRC Research Fellowship
- Dr Kim-Anh Le Cao (UoM) – RD Wright Biomedical Career Development Fellowship
- Prof David Thorburn (MCRI) – NHMRC Principal Research Fellowship
- A/Prof James Chong (UOS) – NSW Government, Early-Mid Career Fellowship
- Prof Melissa Little (MCRI) – NHMRC Research Fellowship & Elizabeth Blackburn Fellowship

Extending the Network

In 2018 our network secured 55 new grants, totalling \$32M in research investments, and continued to forge strong national and international interdisciplinary collaborations to accelerate our research goals. Our researchers and students presented at over 50 international conferences and over 25 national conferences.

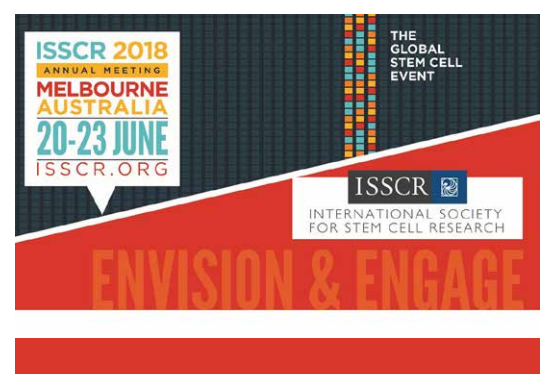
Growing the network

SCA extended its national network of researchers through engaging four new organisations. The University of Newcastle, QIMR Berghofer Medical Research Institute, Hunter Medical Research Institute and Hudson Institute of Medical Research formed affiliate memberships with Stem Cells Australia, bringing 10 new researchers to the network.



Australian research showcased at premier stem cell meeting

Members of SCA were selected to speak at the International Society for Stem Cell Research Annual Meeting, including Jane Visvader, Patrick Tam, Andrew Elefanty, Peter Currie, Enzo Porrello, Jose Polo Nathan Palpant, Christian Nefzger, Lizzi Mason, Ernst Wolvetang, Claire Tanner, Saed Fahd, Thierry Jarde, Alex Combes, Isabelle De Luzy, Melanie Domingues and Dhanushika Ratnayake. ISSCR is the world's largest meeting focused on stem cell research, spanning topics such as cell-based disease modelling, gene editing, developmental systems and their diseases, and potential breakthrough therapies currently being tested in clinical trials. Prof Melissa Little, as Program Committee director, was instrumental in driving the success of this meeting.



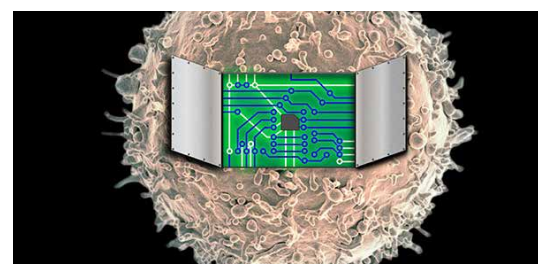
International collaboration to advance medical technologies and treatments for patients in Australia

SCA, the Canadian-based Centre for Commercialization of Regenerative Medicine (CCRM) and CCRM Australia have agreed to collaborate to advance the field of regenerative medicine and cell and gene therapies in Australia. The collaboration will support the translation of cell and gene therapies into clinical and commercial uses and acknowledge our commitment to address government policy, regulation and ethical issues.



Designed to Order

Dr Claire Tanner, A/Prof Megan Munsie (UoM) and colleagues hosted the 'Designed to Order' Interdisciplinary workshop. The event featured Profs Christine Wells and Jane Kaye (UoM), A/Prof Claudia Vickers (CSIRO) and international researcher, Prof Jane Calvert (University of Edinburgh). The event considered the barriers to, and social good that synthetic biology technologies should aspire to achieve, and the cross-disciplinary and governance practices and processes required to responsibly enable progress.



International Visitor: Professor Jane Calvert

Prof Jane Calvert from the University of Edinburgh was invited to UoM to foster a significant and lasting research collaboration with Dr Claire Tanner, supported by a Dyason Fellowship Grant. Prof Calvert participated in the 'Designed to Order' workshop where she provided expertise on interdisciplinary practices and partnerships in synthetic biology. Prof Calvert also highlighted Australia's unique position to lead research innovations in synthetic biology as its size and culture enables novel approaches to be trialled and taken up quickly.

Stem Cells Australia also welcomed visits from over 30 international experts.

Knowledge Transfer

Throughout 2018 Stem Cells Australia has partnered with patient advocacy groups, teacher associations, industry and professional bodies to deliver a suite of educational activities. We have also continued to raise awareness about the policy implications of stem cell research.



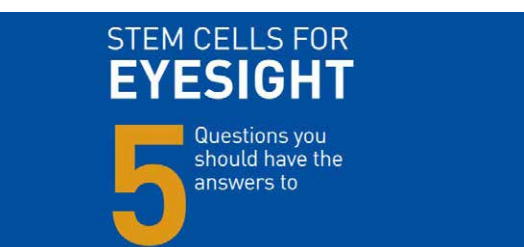
Early-career researchers showcase their research to the public

Stem cell research was brought out of the laboratory and into the public discourse in the ISSCR forum entitled 'Stem Cell Research - Now and in the Future'. 20 Early-Career Researchers had the opportunity to be a Research Ambassador and discuss with community members and high school students how they used stem cells in their research and what they aimed to achieve during their careers. The Ambassadors received great feedback from the public and learnt the value of coming out of the lab to share their experience and passion with the broader community. The forum was held in conjunction with the 2018 ISSCR Annual Meeting with the support of NSCFA.



Stem Cells Australia researchers in the news

Researchers from SCA engaged with the broader community through a number of media outlets. A/Prof Megan Munsie, Prof Carline Gargett and Prof Melissa Little presented their science in ABC Radio and TV episodes. Prof James Bourne was called upon as an expert for CNN. Dr David Elliott and Prof Alice Pebay appeared on 9 News to speak about their research in heart and eye, following the Minister for Health's \$3 Million funding announcement. Articles featuring our researchers also appeared in The Herald Sun, SBS, The Age, Cosmos magazine and more.



Experts publish resource for patients with ocular disease

Profs Stephanie Watson (UoS), Nick Di Girolamo (UNSW) and A/Prof Megan Munsie (UoM) worked closely with the Royal Australian and New Zealand College of Ophthalmologist and other colleagues to create a patient information resource for people considering stem cell treatments for eye conditions. The tailored resource is designed to assist patients and their families make more informed choices when considering options for treating the eye conditions.



Book exploring stem cell tourism receives prestigious national award

Stem Cell Tourism and the Political Economy of Hope authored by Prof Alan Petersen (Monash), A/Prof Megan Munsie, Dr Claire Tanner (UoM), Dr Casimir MacGregor (Monash) and Dr Jane Brophy (Monash) and was awarded the 2018 Stephen Crook Memorial Prize for best authored book in Australian Sociology. The book provides a unique and innovative perspective on the controversial phenomenon of 'stem cell tourism' and aims to understand why patients and families pursue these unproven treatments.

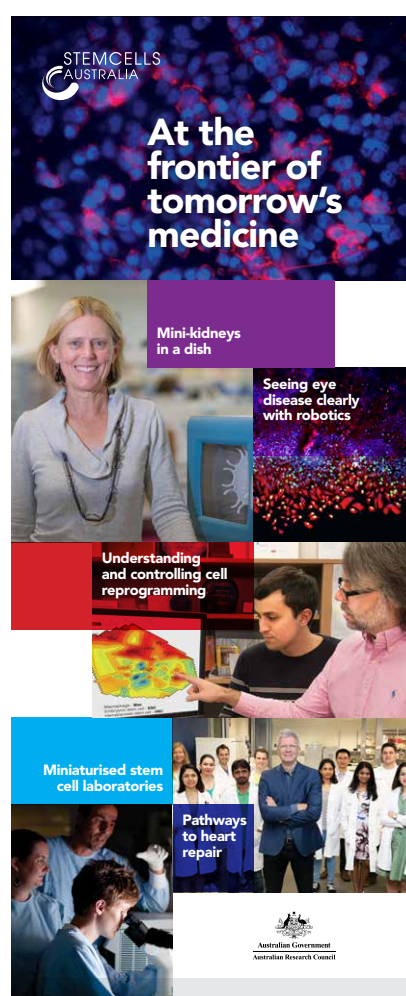
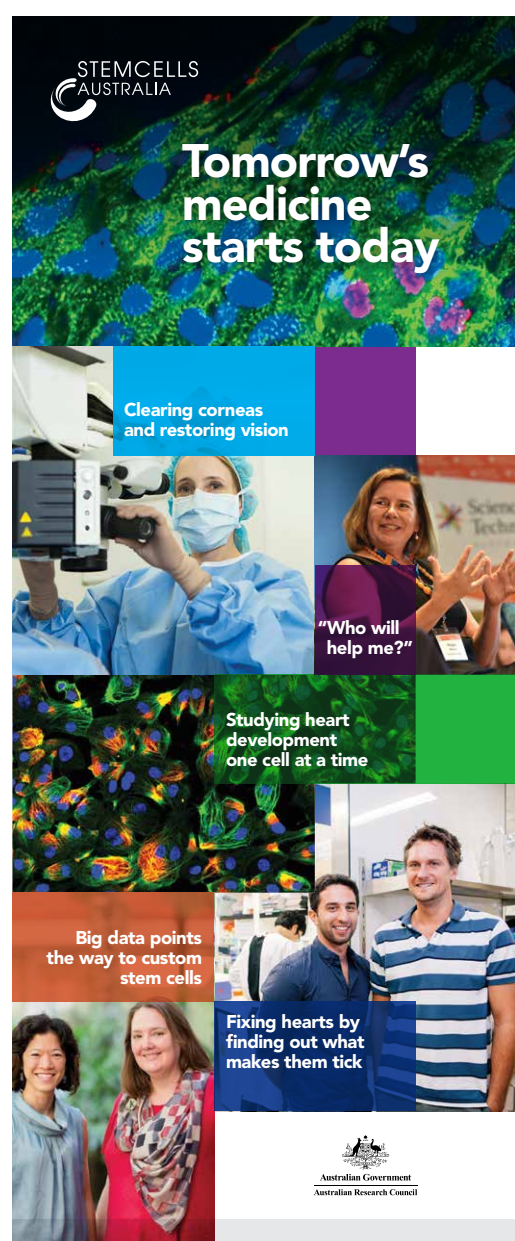


Teachers explore emerging stem cell research at international meeting

20 Biology teachers were offered the opportunity to connect with leading stem cell scientists, biology colleagues and staff from the Gene Technology Access Centre (GTAC), to explore emerging stem cell research. GTAC and SCA ran a special Teacher's Program, which included attendance to the opening day of the ISSCR Annual Meeting. The program informed and encouraged teachers to inspire their science students in the areas of genetics, stem cell biology, biochemistry and more.

Sharing our Stem Cell Stories

Stem Cells Australia's three pillars of research and translational growth address many important diseases and chronic conditions, including heart and kidney failure, blindness, stroke, leukaemia, Parkinson's disease, MS, dementia and muscular dystrophy.



They are also driving further fundamental research that is discovering completely novel ways to control stem cells and their properties, opening up new applications.

Research Program

Our research portfolio is anchored in three pillars of research and translation: Regenerative Medicine, Disease Modelling and Designer Cells.

THEME 1: Regenerative Medicine

Develop cell therapies to repair and restore function after disease or injury.

Neural
Eye
Heart
Kidney
Blood
Muscle

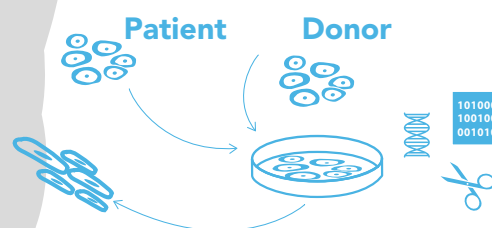
THEME 2: Disease Modelling

Identify disease mechanisms and screen drugs through patient-derived cells.

Neural
Eye
Heart
Kidney
Blood

THEME 3: Designer Cells

Design cells to act as living instruments for environmental, therapeutic and biotechnology applications.



Theme: Regenerative Medicine

Associate Professor Clare Parish, Associate Professor James Chong and Professor Stephanie Watson.

Developing cell therapies to repair and restore function after disease and injury.

Overview

The Regenerative Medicine program seeks to develop new therapies by either recruiting stem cells within organs to promote repair, or administering new cells and tissue made from stem cells to restore normal function after disease, illness or injury. Current translational projects include research on diseases affecting the brain, eye, heart, blood and muscle.

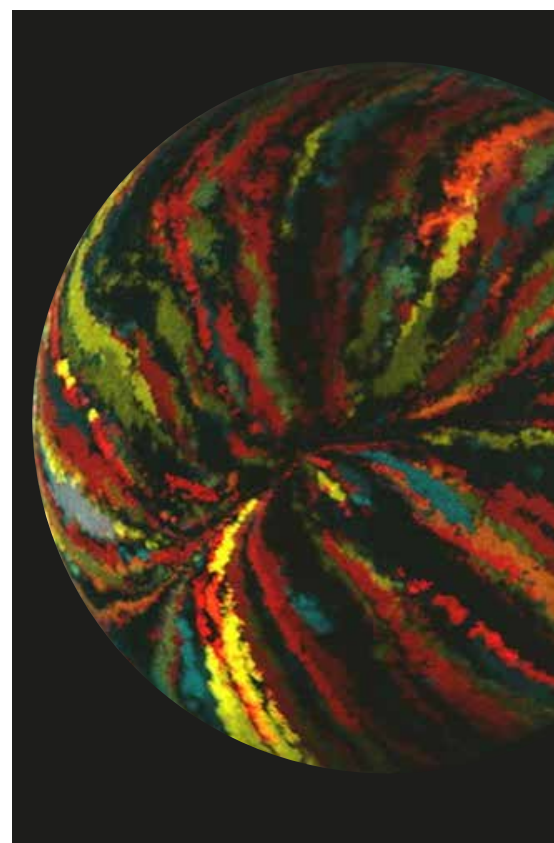
2018 Achievements

Eye researchers Prof Nick Di Girolamo, Stephanie Watson (UoS) and Dr Michael O'Connor (WSU) continue to utilise stem cell and biomaterials to better understand eye disease and develop new therapies. Most recently, Di Girolamo and Watson have used state-of-the-art microscopy to observe wound healing stem cells growing and moving in real time following a corneal injury. In parallel, researchers from WSU (O'Connor laboratory) are on track to significantly improve the lives of children and adults with cataracts thanks to their development of a world-first process to generate light-focusing lenses from stem cells.

The laboratory of Prof Richard Harvey at VCCRI, UNSW is studying how the cells of the heart, including stem cells, might be orchestrated to repair damaged heart tissue. Researchers Nona Farbehi and Dr Ralph Patrick are using ground-breaking technology called single cell RNA sequencing, to identify all the different cell subtypes present in healthy and diseased hearts. Integrating computational biology into their research enables them to understand the relationships between cells, and to model and visualise differentiation/maturation from one cell type into another.

Junior cardiologist researcher Dr Sujitha Thavapalachandran (PhD student Chong lab) won the Ralph Reader Prize for best basic science research at the 2018 Cardiac Society of Australia and New Zealand. She is working on how a novel protein therapy can lead to heart regeneration after heart attack.

Neuroscientists across the network tackle dual approaches in repairing the ageing brain. A/Prof Clare Parish and Dr Lachlan Thompson (Florey) continue to explore the benefits of using bioengineered scaffolds to support the survival and connectivity of human neural stem cell transplants in models of stroke and Parkinson's disease. In contrast Professor Perry Bartlett, Dr Daniel Blackmore and Dr Mia Schaumberg at the QBI, UQ are looking to awaken dormant stem cells in the brain through exercise. The team is now conducting a clinical trial to determine the optimal amount and intensity of exercise required to stimulate cognitive improvements in the ageing human brain – with implications for preventing, slowing and/or reversing dementia.



Highlights

- Prof Richard Harvey (VCCRI, UNSW), won the New South Wales Premier's Prize for Excellence in Medical Biological Sciences. As a world-leading developmental biologist, his discoveries have revealed genetic mechanisms underpinning congenital heart disease in children.
- Prof James Bourne (ARMI, Monash) received the Marshall and Warren Award from the National Health and Medical Research Council's, recognising his cutting edge research into understanding visual brain development.
- Prof Stephanie Watson (UoS) awarded the Council Lecture, Royal Australian and New Zealand College of Ophthalmologist.

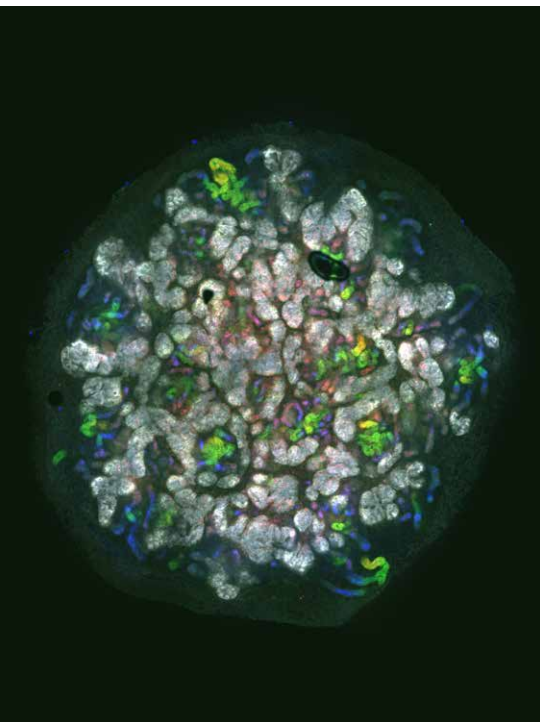
Theme: Disease Modelling

Professor Alice Pébay, Professor Richard Harvey and Professor Colin Pouton

Understanding Disease in Individual Patients Using Stem Cell Models

Overview

The Disease Modelling program is creating tissues from human patient-derived induced pluripotent stem cells (hiPSCs) to provide a platform for determining the causes of disease, developing diagnostic tools and testing for new drugs. Current translational projects include research into diseases affecting the brain, eye, heart, blood and kidney.



2018 Achievements

Brain and Eye: In projects led by Profs Steve Petrou (Florey) and Colin Pouton (Monash), stem cell technology is helping to understand neurological diseases. This work is expected to identify therapeutic targets for congenital brain diseases including epilepsy, and degenerative diseases such as Alzheimer's disease. Prof Wolvetang (UQ) has utilised brain organoids and gene editing technology to probe the roles of chromosome 21 genes in Down syndrome, and identified a potential therapeutic for a rare childhood disease affecting brain development. The eye team, led by A/Prof Alex Hewitt (UTAS) and Prof Alice Pébay (CERA, UoM), has embarked on profiling hiPSC-derived retinal ganglion cells to explore glaucoma across a large cohort of patients.

Heart: Dr Nathan Palpant (UQ) and A/Prof Joseph Powell (Garvan, UNSW) have sequenced the transcriptome of >43,000 individual cells across the time course of heart development, gaining new insights into how the diverse cell types of the heart are generated. In a national collaboration led by Dr David Elliott (MCRI) and involving A/Prof Enzo Porrello (MCRI), Dr James Hudson (QIMR) and Prof Richard Harvey (VCCRI, UNSW), light has been shed on the way heart muscle cells contract, paving the way for future studies to understand how cardiac rhythm is controlled developmentally, and finding new therapies for arrhythmias. Prof Richard Harvey, in collaboration with paediatric surgeon Dr David Winlaw, is also exploring the mechanism of hypoplastic left heart, one of the most severe congenital heart conditions.

Blood: To improve the cure rates in acute leukaemia, Profs Andrew Elefanty, Ed Stanley (MCRI), Susie Nilsson (CSIRO) and Christine Wells (UoM) have engineered hiPSC that carry single or multiple genetic mutations related to leukaemia. They have observed a clear pre-leukaemic phenotype and anticipate revealing more about how acute leukaemia develops. The Stemformatics platform, led by Prof Christine Wells and her team, have successfully mapped hiPSC-derived blood cells onto a broader atlas of human hemopoiesis, and are now using this to model leukemia datasets.

Kidney: Prof Melissa Little (MCRI) and her team are now applying their kidney organoid technology to model congenital nephrotic syndrome (CNS). They have identified CNS patients with a variety of distinct disease-causing mutations, have begun to generate patient-specific and gene corrected hiPSC lines and will now explore whether genetic changes lead to protein misfolding or loss of function, and whether this can be modified by drugs.

Highlights

- A/Prof Enzo Porrello (MCRI) won 2018 Metcalf Prize.
- Grant success with NHMRC and ARC: Profs David Thorburn, Melissa Little, A/Prof Enzo Porrello, Drs Elizabeth Ng, Alexander Combes (MCRI), Robin Hobbs (ARMI, Monash).
- NHMRC Fellowship to Profs Alice Pébay (CERA, UoM) and David Thorburn (MCRI).
- Attracted MRFF Accelerated Research Program funding to investigate gene editing to correct Usher Syndrome, a monogenic disease affecting hearing and sight (Pébay and Hewitt) and to develop a living conduit to support the function of hearts in babies born with a single ventricle (Porrello and Hudson).

Theme: Designer Cells

Professor Jose Polo, Dr Nathan Palpant and Professor Ryan Lister

Designing cells to act as living instruments for environmental, therapeutic and biotechnology applications.

Overview

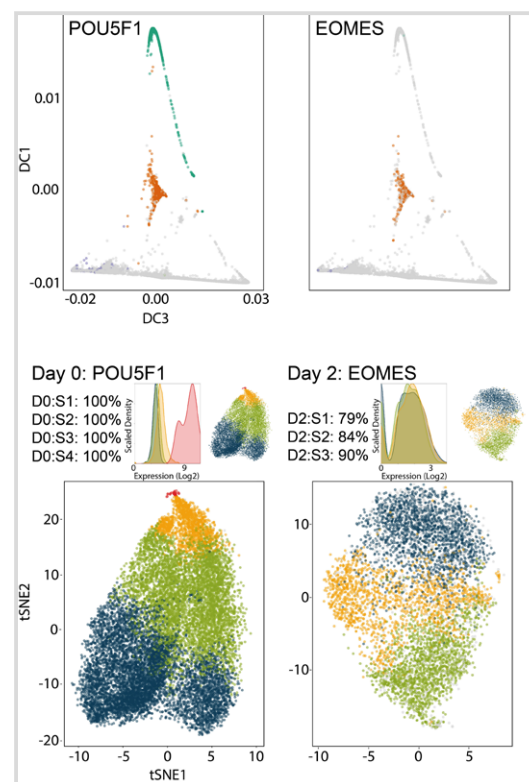
The Designer Cells program is using a combination of molecular tools to design and construct completely novel types of cells, built to deliver a specific function. Cells built by design will result in outcomes that re-define the field of cell biology enabling us to customize cell functions for research, clinical, or biotechnological purposes.

2018 Achievements

This theme has achieved key outcomes utilizing the latest technologies in cellular genomics to enhance our capacity to understand the essential control points of cells and manipulate cell biology for customized purposes. Researchers in the Designer Cells theme have been working on diverse questions, including work on how cells interact in populations, identifying what molecules control the identity and function of cell states, and learning to engineering culturing systems to derive new cell types and leverage the scalable capacity of cells for diverse applications.

In particular, the theme has established benchmarking data sets to reveal the biology of complex systems at the level of individual cells – from Dr Nathan Palpant (UQ), A/Prof Joseph Powell (Garvan, UNSW), Profs Jose Polo (ARMI, Monash), Ryan Lister (UWA), Ernst Wolvetang (UQ) and Christine Wells (UoM) to dissect the biology of heart, eye, neural, pluripotency and reprogramming. These studies have provided millions of new data point for researchers to study cell and developmental biology. We have also identified the specific molecules controlling complex regulatory circuits that define the state of stem cells and established a new universal rule for how the genome undergoes cut-and-pasting of molecules. With an eye toward biotechnology applications for cells, researchers in our theme have provided new strategies for controlling cell differentiation at the scale required for industrial or therapeutic applications, including epigenome read-writers from the Lister laboratory.

Importantly, the theme is looking to the future, coalescing around an application led by Prof Christine Wells to the ARC Centre of Excellence 2020 scheme to transform our understanding of the cell as a customizable tool.



Highlights

- Prof Jose Polo was awarded a prestigious Australian Research Council (ARC) Future Fellowship, for his leading research into cell identity and cell fate.
- ECR Dr Christian Nezfger, a Postdoc with Prof Jose Polo at ARMI, Monash. Dr Nezfger is now an independent Group Leader at IMB, UQ.
- Two collaborative publications across the theme in *Cell Stem Cell* (Palpant and Powell, and Polo and Lister).
- Strong representation of the theme at ISSCR Annual Meeting.

Research Services

Stemformatics: facilitating insight from complex high-dimensional data

Stemformatics is a web based resource which allows stem cell biologists to quickly and easily explore their datasets and benchmark them against 440+ manually curated, high quality public datasets. All data on Stemformatics have been hand-picked, curated and checked for experimental reproducibility and design quality, and normalised in-house.

Stemformatics was established in 2010 at Griffith University, and is now based at the University of Melbourne with a University of Queensland node. The project has been supported by Stem Cells Australia since 2012. The first paper describing Stemformatics was published in 2013, and in 2018, a new paper highlighting many of the updates made since then was published in *Nucleic Acids Research*.

To date, Stemformatics:

- has over 430 transcriptome datasets, encompassing 14000+ samples of stem cells and related cell types;
- includes a broad range of stem cell types, including leukemic cells, neural progenitors and more;
- completes data mining across multiple platforms and shows robust patterns, such as genes with always high correlations;
- has new functionalities, such as downloading multiple datasets programmatically.



Engagement, Ethics and Policy Program

Associate Professor Megan Munsie

Leading public outreach and policy advocacy in stem cell science

Overview

Stem Cells Australia is committed to providing the Australian community with clear, accessible and authoritative information about progress in stem cell science. Through our Engagement, Ethics and Policy (EEP) Program we contextualise scientific discoveries in this fast-paced and fascinating field, as well as track, discuss and respond to important social and regulatory implications of regenerative medicine and stem cell research. Our activities are strengthened through national and international collaborations with colleagues in industry, academia and government and community organisations.

2018 Achievements

To coincide with the International Society for Stem Cell Research (ISSCR) Annual Meeting held in Melbourne, Stem Cells Australia, National Stem Cell Foundation of Australia and the Australasian Society for Stem Cell Research held a public forum for interested members of the public to hear leading Australian researchers, including Profs Melissa Little (MCRI), Susie Nilsson (CSIRO), A/Prof James Chong (UoS) and Dr Michael O'Connor (WSU).

Attracting over 350 people, the event provided an invaluable opportunity for the audience to ask the panel questions about the science, ethics and impact of their research. The event was enriched by 20 Early Career Researchers sharing their excitement about the future for stem cell science in Australia with the audience. In addition, we held interactive workshops for 75 high school students to explore stem cell research at the Gene Technology Access Centre and arranged for 20 Victorian high school teachers to attend a workshop and the opening plenary session of the ISSCR Meeting.

During 2018, we continued to work with key community groups and professional organisations to develop resources and hold forums on key developments relevant to each group. We would like to thank the Chronic Illness Alliance, MSK Australia, Usher Kids, MS Australia, the Australasian College of Sports and Exercise Physicians and the Royal Australian and New Zealand College of Ophthalmologists. We also welcomed Prof Alan Petersen (Monash), Dr Claire Tanner, Prof Jane Kaye (UoM, Oxford) and Dr Jessica Bell (UoM) into our EEP program, greatly enriching the network's expertise in societal, ethical and legal implications of stem cell research. Our combined efforts and ongoing liaison work with policy makers and regulators have placed the Stem Cells Australia initiative as an international leader in engagement and policy advocacy in stem cell science.



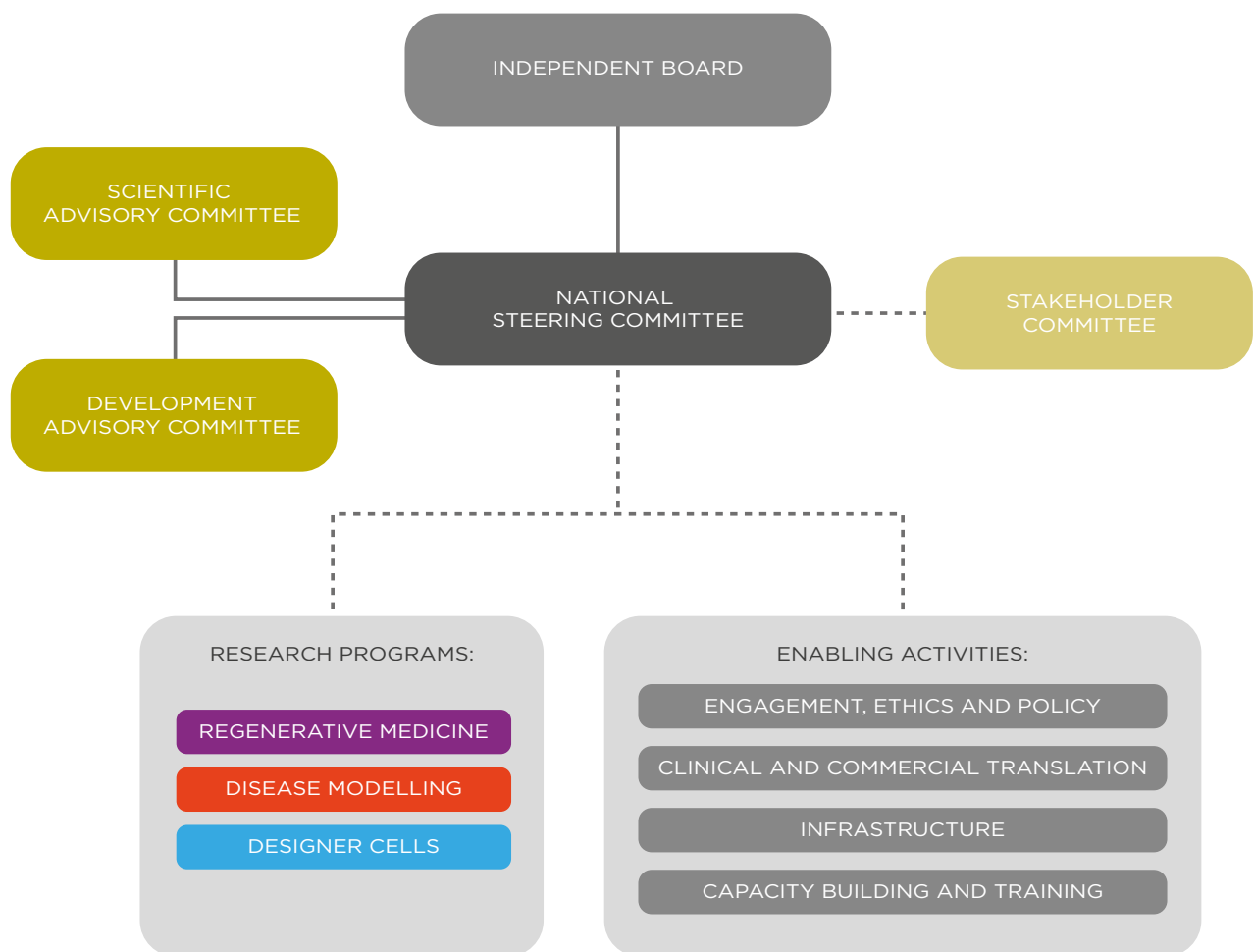
Highlights

- Head of EEP, A/Prof Megan Munsie (UoM) was awarded the 2018 ISSCR Public Service Award in recognition of her outstanding contributions to the fields of stem cell research and regenerative medicine.
- Co-developed resources for patients and health professionals with the Australian College of Sports and Exercise Physicians, Musculoskeletal Australia and the Royal Australian and New Zealand College of Ophthalmologists.
- Book – *Stem Cell Tourism and the Political Economy of Hope* – co-authored by members of EEP received prestigious award from The Australian Sociological Association.

Leadership and Governance

Stem Cells Australia was established in 2011 through support from an Australia Research Council (ARC) Special Research Initiative in Stem Cell Science which has provided \$24 million over eight years.

The founding consortium members were The University of Melbourne, Monash University, the University of Queensland, the University of NSW, CSIRO, the Walter and Eliza Hall Institute, the Victor Chang Cardiac Research Institute and the Florey Institute of Neuroscience and Mental Health, with Murdoch Children's Research Institute joining in 2016. The University of Sydney, Western Sydney University, University of Wollongong, University of Tasmania and University of Western Australia joined the initiative in mid-2018, when the initiative received support for a one-year extension. The University of Newcastle, QIMR Berghofer Medical Research Institute, Hunter Medical Research Institute and Hudson Institute of Medical Research became affiliate members in late 2018. The University of Melbourne remains the Administering Organisation for the ARC initiative.



**VCCRI does not participate in hESC research*

Independent Board

The Independent Board is responsible for approving research projects, providing strategic guidance in identifying pathways for bringing stem cell medicine into practice, and for overseeing the operational management of Stem Cells Australia.



Professor Bob Williamson
(Chair)



Professor Graeme Blackman



Professor Michelle Haber



Ms Jane Halton

Stakeholder Committee

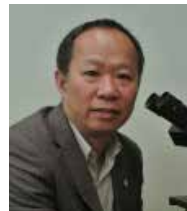
The Stakeholder Committee comprises a senior representative of each party in the Stem Cells Australia consortium.



Professor Anthony Kelleher
University of New South Wales



Dr Andrew Black
University of Sydney



Professor Ming-Hao Zheng
University of Western Australia



Professor Janette Perz
Western Sydney University



Professor David J Adams
University of Wollongong



Professor Alan Cowman
Walter & Eliza Hall Institute of Medical Research



Dr Paul Savage
CSIRO



Professor Tracey Dickson
University of Tasmania



Dr James Dromey
Murdoch Children's Research Institute



Ms Britt Granath
Victor Chang Cardiac Research Institute



Dr Henry De Aizpurua
The Florey Institute of Neuroscience & Mental Health



Professor Mark Hargreaves
University of Melbourne



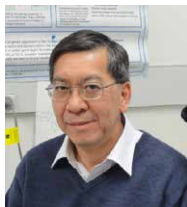
Professor Peter Currie
Monash University



Professor Mark Blows
University of Queensland

Scientific Advisory Committee

Comprising international stem cell experts with expertise that spans the full Stem Cells Australia program, the Scientific Advisory Committee provides advice from an international perspective.



Professor Patrick Tam
(Chair)
Children's Medical
Research Institute,
Australia



Professor Christine Mummery
Leiden University Medical
Centre, The Netherlands



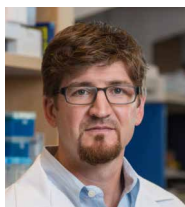
Professor Malin Rarmar
Lund University, Sweden



Professor Susan Rosser
University of Edinburgh,
UK



Professor Michael Rudnicki
Ottawa Hospital Research
Institute, Canada



Dr Jason Spence
University of Michigan, US



Professor Peter Zandstra
University of Toronto,
Canada.

Development Advisory Committee

Comprising Australian-based experts from the biotechnology and health sectors, the Development Advisory Committee provides advice on strategies, pathways and requirements to translate the initiative's stem cell research into medical practice and commercial products.



Dr Sue MacLeman (Chair)
MTP Connect



Dr Glenn Begley
Biocurate



Dr Dawn Driscoll
Cell Therapies



Dr Kirsten Herbert
Peter MacCallum Cancer
Centre



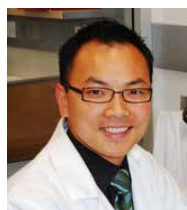
Dr Ross McDonald
Cynata Therapeutics



Professor John Rasko
University of Sydney

National Steering Committee

The National Steering Committee will be responsible for reporting on the activities of the entire SCA portfolio and recommending on funding distributions for projects and development activities.



**Associate Professor
James Chong**
UoS



Dr Aude Dorison
VCCRI



**Professor Robert
Graham**
VCCRI, UNSW



Professor Richard Harvey
VCCRI, UNSW



Professor Ryan Lister
UWA



Professor Melissa Little
McRI



**Associate Professor
Megan Munsie**
UoM



Dr Nathan Palpant
UQ



**Associate Professor
Clare Parish**
Florey



Professor Alice Pebay
CERA, UoM



Professor Jose Polo
ARMI, Monash



Professor Colin Pouton
Monash



**Professor Stephanie
Watson**
UoS



Professor Christine Wells
UoM



**Professor Ernst
Wolvetang**
UQ

Early Career Researcher Committee

The voice of the up and coming junior researchers, the ECR committee is tasked with the role of increasing interaction between junior and senior scientists and the wider stem cell community.



**Dr Aude Dorison
(Chair)**
VCCRI



Cecilia Gomez-Inclan
AIBN UQ



Dr Dhanisha Jhaveri
QBI, UQ



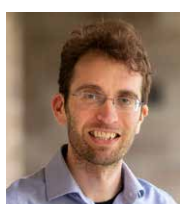
Dr Tobias Merson
ARMI, Monash



Dr Jennifer Hollands
Florey



Isabelle de Luzy
Florey



Dr Paul Angel
UoM



**Associate Professor
Megan Munsie**
UoM



Professor Christine Wells
UoM

Our People

Chief and Partner Investigators

The senior researchers and the project leaders of the initiative.

* indicates new Investigator.



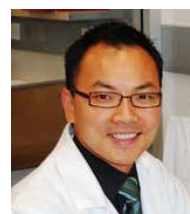
**Associate Professor
Helen Abud***
Chief Investigator
Monash



Professor Perry Bartlett
Chief Investigator
QBI, UQ



**Associate Professor
James Bourne**
Chief Investigator
ARMI, Monash



**Associate Professor
James Chong**
Chief Investigator
UoS



**Professor John
Christodoulou***
Chief Investigator
MCRI



**Professor Justin
Cooper-White**
Chief Investigator
UQ



Professor Peter Currie
Chief Investigator
ARMI, Monash



**Professor Nick Di
Girolamo***
Chief Investigator
UNSW



**Associate Professor
Mirella Dottori**
Chief Investigator
UoW



**Professor Andrew
Elefanty**
Partner Investigator,
MCRI



Dr Dave Elliott
Partner Investigator
MCRI



**Professor Alastair
Forrest***
Chief Investigator
UWA



**Professor Robert
Graham**
Chief Investigator
VCCRI, UNSW



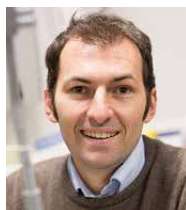
Professor Peter Gray
Chief Investigator
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**Professor Richard
Harvey**
Chief Investigator
VCCRI, UNSW



Dr John Haynes*
Chief Investigator
Monash



Associate Professor Alex Hewitt*
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UTAS



Professor Doug Hilton
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Professor Trevor Kilpatrick
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Professor Ryan Lister
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Dr Lachlan Thompson
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Professor Christine Wells
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Professor Ernst Wolvetang
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Postgraduate Students



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Serena Gallozzi
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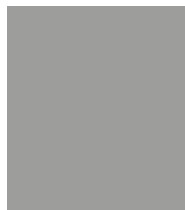
Laura Galvis-Vargas
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Carlos Gantner
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Mustafa Hamimi
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Jacqueline Heighway
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Ziyi Huang
CSIRO



Amy Hulme
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Cecilia Gomez-Inclan
AIBN UQ



Sabrina Islam
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Brett Kagan
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Pamela Kairath Oliva
MCRI



Tim Kao
MCRI



Simran Kaur
MCRI



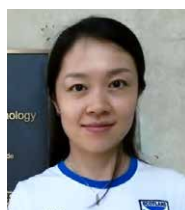
Yafit Kushner
Florey



Mai La
ARMI Monash



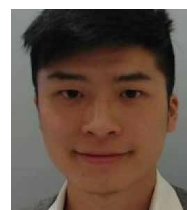
Ana Rita Leitoguinho
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Juan Li
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Xiaodong (Ethan) Liu
ARMI Monash



Yau Chung Low
MCRI



Simon Maksour
UoW



Cristiana Mattei
UoM



Cameron McKnight
UoM



Michal Mor
UoW



Kaveh Moradi
ARMI Monash



Linda Nguyen
Florey



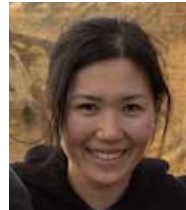
Harish Padmanabhan
UQ



Vanessa Penna
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Claire Pritchard
CSIRO



Elizabeth Qian
MCRI



Greg Quaife-Ryan
UQ



Adele Quaran
Monash



Nadia Rajab
UoM



Woo Jun Shim
IMB UQ



Rebecca Simmons
UWA



Enakshi Sinniah
IMB UQ



Ying-Chen Soo
MCRI



Julian Stolper
ARMI Monash



James Spyrou
UoM



Olivia Stonehouse
WEHI



Tessa Swain
UWA



Sujitha Thavapalachandran
UoS



Kanupriya Tiwari
AIBN UQ



Amanda Ton
Monash



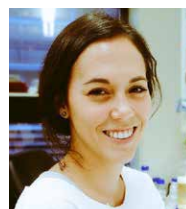
Tim Tracey
AIBN UQ



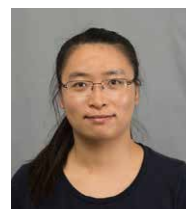
Isaac Virshup
UoM



Serena Viventi
Florey



Holly Voges
UQ



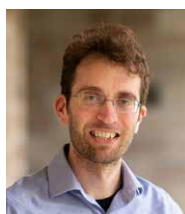
Mei Zhou
QBI UQ

Our Network

Our network consists of researchers directly working in our core stem cells projects or active team members working on stem cells projects of our senior researchers and the Stemformatics group.



**Dr Dad
AbuBonsrah**
MCRI



Dr Paul Angel
UoM



**Dr Samantha
Barton**
Florey



Dr Jessica Bell
UoM



Michelle Binder
Florey



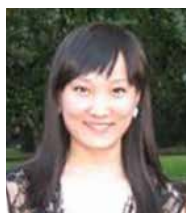
**Dr Samantha
Bobba**
UoS



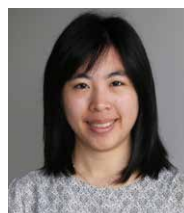
**Dr Sam
Buckberry**
UWA



**Dr Frederico
Calhabeu**
ARMI, Monash



Dr Madeline Cao
CSIRO



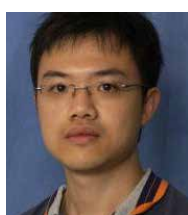
Andrea Chan
VCCRI



Chris Breen
UWA



**Dr Horace Wing
Hei Chan**
Monash



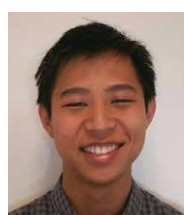
Tyrone Chen
Stemformatics



Han Chiu
UQ



Dr Jarny Choi
Stemformatics



Dylan Chung
UoM



Jordan Clarke
UoM



Dr Zoe Clayton
UoS



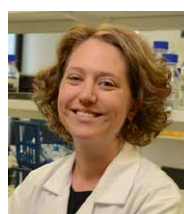
Dr Claire Cuddy
Florey



**Dr Aleksandar
Dakic**
UoM



Dr Partha Das
Monash



**Dr Kathryn
Davidson**
ARMI, Monash



**Dr Carolyn De
Graaf**
WEHI



Dr Aude Dorison
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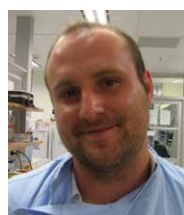
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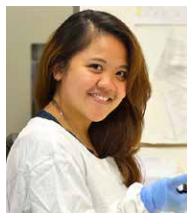
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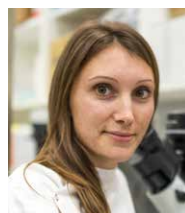
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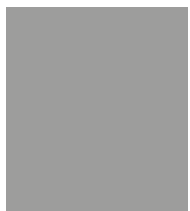
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Affiliate Investigators

Internationally renowned stem cell researchers from outside our direct network.



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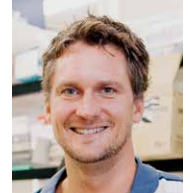
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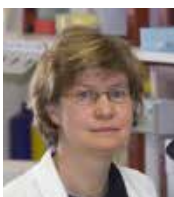
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Management Team

The Stem Cells Australia initiative is supported by a small administrative team based at the University of Melbourne.



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- Sandani Udabage
- Linda Cox
- Jennifer Gilbert

Performance Tables

Key Result Area 1: Research Performance	2011 KPIs		2012 KPIs		2013 KPIs		2014 KPIs		2015 KPIs		2016 KPIs		2017 KPIs		2018 KPIs	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Innovative, internationally, competitive research strategically focussed on fundamental stem cell science																
Number of research outputs: Journal Publications	15	29	70	102	80	116	90	141	90	113	90	160	90	149	90	148
Number of Conference proceedings	4	3	20	8	20	9	30	1	30	1	35	0	N/A	N/A	N/A	N/A
Quality of research outputs																
50% of publications will be in peer reviewed, international journals with an Impact Factor >5	50%	50% (14)	50%	54% (55)	50%	45% (46)	50%	43% (50)	50%	61% (61)	50%	48% (73)	50%	58% (74)	50%	60% (89)
15% of publications will be in journals with Impact Factor >10.	15%	20% (6)	15%	12% (12)	15%	17% (17)	15%	20% (23)	15%	20% (20)	15%	18% (27)	15%	20% (26)	15%	21% (32)
Number of invited talks/papers/keynote lectures given at major international meetings	3	16	15	46	15	28	15	97	20	67	25	50	20	64	10	102
Patent applications lodged	0	0	0	1	2	2	2	0	2	1	2	4	2	7	2	10

Key Result Area 2: Research Training and Capacity Building	2011 KPIs		2012 KPIs		2013 KPIs		2014 KPIs		2015 KPIs		2016 KPIs		2017 KPIs		2018 KPIs	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Number of postgraduate students working on core SRI research and supervised by SRI members																
Annual	8	14	10	8	12	20	26	18	8	8	11	19	11	25	8	31
Cumulative	8	14	18	22	30	42	56	60	64	68	75	87	86	112	94	143
Number of postdoctoral researchers appointed to the SRI working on core SRI research																
Annual	9	11	20	40	20	9	20	10	20	14	20	15	20	25	20	49
Cumulative	9	11	29	51	49	60	69	70	89	84	109	99	129	124	149	173
Number of postgraduate completions by students working on core SRI research and supervised by SRI members																
Annual	0	0	2	2	2	2	6	7	7	9	16	13	17	13	10	8
Cumulative	0	0	2	2	4	4	10	11	17	20	33	33	50	46	60	54
Qualitative measures of capacity building																
Number of Competitive postdoctoral Fellowships awarded	0	1	1	3	2	4	3	5	2	8	3	5	2	7	0	8
Other awards, short term fellowships, recognitions, appointments, promotions	0	1	9	10	11	17	9	7	10	11	9	20+	10	40+	5	42

Key Result Area 3: International, national links and networks	2011 KPIs		2012 KPIs		2013 KPIs		2014 KPIs		2015 KPIs		2016 KPIs		2017 KPIs		2018 KPIs	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
International Collaboration																
Researchers, fellows attend and present at international conferences (annual)	4	16	30	39	35	48	35	28	35	59	35	65	35	36	24	61
Students attending international research conferences (annual)	1	1	13	2	14	4	19	22	23	7	21	12	23	30	26	51
Research collaborations with international centres	2	10	3	22	5	16	5	50	5	47	5	45+	5	40+	5	68
International research funding received annually	0	\$470K	\$500K	\$1.5M	\$750K	\$1.2M	\$750K	\$325K	\$750K	\$1.2M	\$1M	\$640K	\$1M	\$1.1M	\$500K	\$2.3M
National Collaboration: Cross-institutional/ collaboration defined as across research institutions (i.e. collaborating and partner organisations) within SCA																
Annual retreat attended by x% of researchers, fellows, students	N/A	N/A	80%	85%	80%	81%	80%	91%	80%	91%	80%	87%	80%	81%	80%	N/A
% publications including cross-institutional authorship annually	25%	18%	50%	12%	60%	3%	65%	60%	65%	73%	65%	73%	65%	72%	65%	80%
Number of international visitors and visiting fellows funded with SRI funds	0	0	2	2	2	4	2	5	2	3	2	2	2	12	1	30
Number of workshops held/organised by the SRI																
Nationally	1	1	1	4	1	7	1	8	1	5	1	4	1	3	1	3
Internationally	0	0	1	1	0	1	1	1	0	1	0	0	1	1	0	1

Key Result Area 4: Knowledge transfer, outreach and communication	2011 KPIs		2012 KPIs		2013 KPIs		2014 KPIs		2015 KPIs		2016 KPIs		2017 KPIs		2018 KPIs	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Number and nature of commentaries about the SRI's achievements																
Media releases	2	3	5	4	5	6	5	5	6	6	6	11	6	14	3	25
Articles	1	7	3	21	3	20+	4	35+	4	35+	4	35+	5	45+	3	50+
Number of government, industry and business community briefings	1	1	4	7	4	6+	4	4+	4	4	4	8	4	12	4	70
Number and nature of public awareness programs																
Provide tailored resources to community and professional organisations	2	2	4	6	4	11	4	10	4	5	4	6	4	7	6	6
SRI members participating in community or patient advocacy meetings	3	3	5	16	5	12	10	15	10	13	10	36	15	26	8	39
Engagements with science teachers' associations	1	1	3	2	3	3	3	3	3	4	3	3	3	3	3	3
Currency of information on the SRI's website (number of news items posted)	Website launched Nov 2011		27		51		37		30		39		68		77	
Online																
Number of website hits	2,000	2,559	15,000	22,207	20,000	53,038	20,000	99,570	20,000	90,205	20,000	105,638	20,000	86,858	20,000	84,607

Appendices

Publications

Journal Articles

Publications with an impact factor greater than 10 indicated by *.

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Books and Book Chapters

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Grants

List of grants secured by researchers commencing in 2018.

Researcher	Funding Scheme	Project Title	Value	Duration
International				
Christoffe Marcelle (ARMI, Monash)	Monaco Myopathy Association	Muscle fusion as a delivery mechanism to repair ailing muscles from heritable muscle diseases	\$150,000	2018-2019
Clare Parish (Florey)	M.J. Fox Foundation Therapeutic Pipeline Program	Development of a novel alpha-synuclein lowering strategy based on CRISPR-interference technology	\$710,250	2018-2020
David Thorburn (MCRI)	US Dept of Defense Congressionally Directed Medical Research Programs (CDMRP) Investigator-Initiated Research Award PR170396	Solving the unsolved. Integrating functional, computational and Omic approaches to enable genomic diagnosis of virtually all patients with mitochondrial disease	\$1,700,205	2018-2021
Harald Janovjak (Monash)	Germany Joint Research Co-operation Scheme, DAAD-Universities Australia	Optogenetic regulation of cellular pathways in models of neurodegeneration	\$10,000	2018-2020
Jose Polo (ARMI, Monash)	Australia-Germany Joint Research Co-operation Scheme	Transcriptional landscape of kidney epithelial cells in health and disease	\$22,800	2018-2019
Lars Nielsen (AIBN, UQ)	DTU	DTU-UQ Collaboration	\$1,200,000	2018-2023
Melissa Little (MCRI)	Alport Foundation		\$1,420,500	2018-2019
Melissa Little (MCRI)	Astellas Pharmaceuticals		\$250,000	2018
Nathan Palpant (UQ)	Global Strategy and Partnerships Award	Maturation of human pluripotent stem cell-derived cardiomyocytes.	\$15,000	2018
ARC				
Ernst Wolvetang (UQ)	ARC Discovery Project	Mimicking the perivascular niche with boronolactin-based biomaterials	\$477,000	2019-2022
James Bourne (ARMI, Monash)	ARC Discovery Project	From Gene to Duty	\$500,000	2019-2021
Jessica Mar (UQ)	Future Fellowship	Developing bioinformatics methods for single cell transcriptomics.	\$944,572	2018-2021
Jose Polo (ARMI, Monash)	ARC Discovery Project	Regulatory architecture of the trunk-to-tail transition	\$727,577	2018-2020
Jose Polo (ARMI, Monash)	ARC Future Fellowship	Unveiling the epigenome dynamics through the pluripotency continuum	\$918,125	2018-2022
Richard Harvey (VCCRI)	ARC Discovery Project Grant	Endocardial sprouting and mechano-signalling in heart trabeculation	\$545,000	2019 - 2021
NHMRC				
Alistair Forrest (UWA)	NHMRC Senior Research Fellowship B.	Systems Biology of Human Disease	\$717,275	2019-2023
Clare Parish (Florey)	SRF (Fellowship)	Advancing stem cell therapy for brain repair	\$649,000	2019-2023
Clare Parish (Florey)	Project grant	Utilizing Biomaterials to Improve the Differentiation & Integration of Human Stem Cell-Derived Neural Grafts in Parkinson's Disease	\$807,000	2019-2021

Researcher	Funding Scheme	Project Title	Value	Duration
David Elliott (MCRI)	NHMRC	Understanding the regenerative potential of the human heart in development and disease.	\$941,748	2019-2022
David Thorburn (MCRI)	NHMRC Project Grant GNT1164479	Deciphering the pathogenetics of rare diseases by multi-omic approaches: disorders of mitochondrial energy generation as an exemplar	\$1,041,548	2019-2021
James Chong (UoS)	NHMRC	The Dead Heart Project: When is a 'dead' heart truly dead?	\$1,672,052	2018-2021
Jose Polo (ARMI, Monash)	NHMRC	Exploring and Targeting the Anti-Inflammatory Signaling Mechanisms of Interleukin 37	\$1,506,200	2018 - 2021
Kim-Anh Lê Cao (UoM)	NHMRC Career development fellowship level 2	Microbiome biomarkers of human disease: novel computational methods to facilitate therapeutic developments	\$483,000	2019-2022
Melissa Little (MCRI)	SPRF Fellowship	Regenerating the kidney using an understanding of normal development.	\$951,005	2018-2022
Nathan Palpant (UQ)	NHMRC	Role of common genetic variation driving single cell transcriptional heterogeneity across the cardiomyocyte lineage	\$882,697	2018-2020
Siiri Iismaa (VCCRI)	NHMRC	Tissue-dependent proregenerative mechanisms in adult vertebrates	\$638,742	2018-2020
Tobias Merson (ARMI, Monash)	NHMRC	Optimising myelin repair and restoring neuronal function in the demyelinated brain	\$1,009,933	2018-2021
Other				
Alberto Rosello Diez (ARMI, Monash)	Platform Access Grant PAG18-0363	Shedding light on cell-cell interactions during organ development and repair: optogenetic tools for transgene misexpression with high spatiotemporal resolution	\$15,000	2018-2020
Bennett, L., Bucking, M., Kotthoff, M., McCaffrey, T., Robinson, A. & Haynes, J.	Monash-Fraunhofer ICON Collaboration	Tracing health impacts of natural and added nutrients in foods – approach for next-generation validation of the function of foods	\$1,800,000	2018-2021
Christine Wells (UoM)	JEM Research Foundation	The Stem Cell Atlas	\$100,000	2018
David Elliott (MCRI)	RCH Foundation	CardioRegen	\$940,000	2018-2021
David Elliott (MCRI)	RCH Foundation	The Australian Paediatric CardioOncology Registry	\$345,000	2019-2021
David Elliott (MCRI)	Kids Cancer Project	Understanding the genetic basis of anthracycline induced cardiotoxicity.	\$300,000	2018-2021
David Thorburn (MCRI)	Australian Mitochondrial Disease Foundation Translational Grant	Functional Genomics in Gene Discovery and Clinical Practice	\$287,486	2018-2020
Ernst Wolvetang (UQ)	Perry Cross Spinal Research Foundation	Stem cell mediated spinal cord repair	\$400,000	2018-2021
Grace Lidgerwood, Alice Pébay (UoM)	Centre for Eye Research Australia Foundation Innovation Funds.	A retina-on-a-chip for disease modelling and drug therapy	\$90,000	2018-2019
Harald Janovjak (Monash)	Joint Medicine-Pharmacy Submission – Grants (Monash University)	"Using optogenetics to understand compartmentalized GPCR signalling"	\$48,000	2018-2019
James Bourne (ARMI, Monash)	CSIRO Research	Biomaterial for treatment of CNS injury	\$339,000	2018-2021

Researcher	Funding Scheme	Project Title	Value	Duration
James Bourne (ARMI, Monash)	CSIRO/ SCA/ Monash	Development of an ephrin-A1-based conjugated biomaterial treatment strategy to promote neuroprotection and neuronal survival after CNS injury	\$590,000	2018-2020
Justin Cooper-White (AIBN, UQ)	UQ-Exeter Initiator grant	The Effects of Ageing on the Nutrition and Mechanics of the Intervertebral Disc	\$20,000	2018
Lars Nielsen (AIBN, UQ)	Qld Biofutures	Queensland Strain Factory	\$2,000,000	2018-2020
Mirella Dottori (UoW)	Yulgilbar Alzheimer's Research Program	Assessing and comparing function of brain organoids from persons with dementia and normal controls.	\$100,000	2019
Mirella Dottori (UoW)	Dementia Australia Research Foundation	Use of brain organoids and artificial intelligence for understanding dementia.	\$500,000	2019-2021
Nathan Palpant (UQ)	Heart Foundation Future Leader Fellow (CDF2)	Cardiovascular Development and Disease: Discovery science to translational applications.	\$640,000	2018-2021
Nathan Palpant (UQ)	UQ Strategic Funding Research Initiative	The BIONICS project: increasing organ donor availability.	\$1,300,000	2018-2020
Nicole Van Bergen (MCRI)	Foundation for Children	Brain cells in a dish: strategies for novel therapeutics in CDKL5 disorder	\$158,868	2018-2020
Nicole Van Bergen (MCRI)	MCRI Strategic pilot projects in stem cell and genomic medicine	Brain cells in a dish: strategies for novel therapeutics in CDKL5 disorders	\$36,000	2017-2018
Nicole Van Bergen (MCRI)	MCRI Strategic pilot projects in stem cell and genomic medicine	Stem cell models to model a new neurodegenerative disorder exacerbated by febrile illness	\$35,000	2018-2019
Peter Gray (UQ)	Philanthropic sources	Using Human Pluripotent Stem Cells to Achieve Scalable, High Purity Production of Cardiac Cells for Transplantation Studies.	\$225,000	Per Annum Ongoing
Richard Harvey (VCCRI)	Stem Cells Australia Special Research Initiative in Stem Cell Science	Modelling Hypoplastic Left Heart in iPSC	\$150,000	2018-2019
Robert Graham (VCCRI)	Catholic Archdiocese of Sydney Grant for Adult Stem Cell Research	Elucidating the genetics and biology of spontaneous coronary artery dissection (SCAD): a life-threatening heart disease of women	\$100,000	2018-2019
Robert Graham (VCCRI)	2018 IMPACT Philanthropy Application Program	Mending torn hearts	\$100,000	2018
Ryan Lister (UWA)	NHMRC – equipment grant	MaxOne High Resolution Multi Electrode Array	\$30,000	2018-2019
Steve Petrou (Florey)	RogCon (Commercial Funding)	ASO down regulation of SCN2A in epilepsy	\$500,000	2019
Trevor Kilpatrick (Florey)	ARSEP foundation	Development of Live Imaging of the innate immune response during demyelination and characterization of both spontaneous and pharmacologically-induced myelin repair	\$244,875	2018
Total			\$32,185,458	

Awards and Appointments

In 2018 the achievements of Stem Cells Australia researchers were once again recognised by many international and national awards.

Listed are the most significant awards and an additional 21 grants were awarded to students for travel.

Recipient	Achievement
Anja Knaupp (ARMI, Monash)	Early Career Researcher Fellows Publication Prize for Laboratory Based Research
Anthony Boghdadi (ARMI, Monash)	Director's award for doctoral research excellence (ARMI)
Aude Dorison (VCCRI)	Runner up Best Oral Presentation Award – St Vincent's Research and Postdoctoral Symposium
Aude Dorison (VCCRI)	Best Poster Award – Sydney Cardiovascular Symposium
Bryony Nayagam (UoM)	Associate Professor
Claire Tanner (UoM)	2018 The University of Melbourne Dyason Fellowship
Clare Parish (Florey)	NHMRC senior Research Fellowship
Clare Parish (Florey)	NHMRC senior Research Fellowship
David K Gardner (UoM)	Redmond Barry Distinguished Professors Award, The University of Melbourne
David Thorburn (MCRI)	NHMRC Principal Research Fellowship (MCRI)
David Thorburn (MCRI)	Fellow, Australian Academy of Health and Medical Sciences (MCRI)
Elizabeth Mason (UQ)	PhD awarded from University of QLD
Hananeh Fonoudi (VCCRI)	Best Oral Presentation Award – Australian and New Zealand Society for Cell and Developmental Biology (ANZSCDB), NSW and ACT Cell and Developmental Biology Meeting
Helen Abud (Monash)	Monash Biomedicine Discovery Institute Innovation in Teaching Award
Helen Abud, Genevieve Kerr, Thierry Jardé, Rebekah Engel (Monash et al)	Monash Biomedicine Discovery Institute award for Science Communication and Community Engagement
Hila Barzilai-Tutsch (ARMI, Monash)	Women in Science Award – Hebrew University of Jerusalem, Israel
James Bourne (ARMI, Monash)	Promotion to Professor
James Bourne (ARMI, Monash)	NHMRC Marshall and Warren Award
James Chong (UoS)	NSW Government, OHMR, Early-Mid Career Fellowship
James Ryall (UoM)	Promotion to Level C, The University of Melbourne
Jessica Mar (UQ)	Australia China Young Scientists Exchange Program 2018
Jose Polo (ARMI, Monash)	Was awarded full Professorship
Jose Polo (ARMI, Monash)	Metcalf Prize for Stem Cell Research, National Stem Cell Foundation of Australia
Jose Polo (ARMI, Monash)	ARC Future Fellowship – Monash University
Kim-Anh Lê Cao (UoM)	Moran Medal, Australian Academy of Science (biennial)
Linda Nguyen (Florey)	TRP Scholarship
Megan Munsie (UoM)	2018 International Society for Stem Cell Research Public Service Award
Megan Munsie, Claire Tanner, Alan Petersen (UoM)	The Australian Sociological Association Stephen Crook Memorial Prize for best authored book in Australian Sociology for 2016-2017.

Recipient	Achievement
Melissa Little (MCRI)	NHMRC Top Research Fellowship
Melissa Little (MCRI)	NHMRC Elizabeth Blackburn Fellowship Biomedical -
Melissa Little (MCRI)	NHMRC Senior Principal Research Fellowship
Mirana Ramialison (Monash)	Conference Award from the International Zebrafish Society to attend the Asilomar PI meeting (\$1,500)
Mirana Ramialison (Monash)	Conference Award from the Zebrafish Disease Models Society
Nadia Rajab (UoM)	CSIRO SynBio FSP PhD Scholarship
Nathan Palpant (UQ)	Controlling cardiac differentiation from human pluripotent stem cells. Research Excellence Award. The University of Queensland.
Nicole Van Bergen (MCRI)	Promotion to Senior Research Officer
Perry Bartlett (QBI, UQ)	Appointed Professor Emeritus at The University of Queensland, Brisbane, Australia
Ralph Patrick (VCCRI)	Re-appointment: conjoint lecturer, St Vincent's Clinical School, UNSW
Richard Harvey (VCCRI)	Appointment to the NSW Health Early Career Fellowship Selection Committee
Richard Harvey (VCCRI)	Appointment to the NHMRC Fellowship Committee
Richard P Harvey (VCCRI)	NSW Premier's Prize for Excellence in Medical Biological Sciences
Richard P Harvey (VCCRI)	Appointment to the Australian Genomics Health Mission; Australian Functional Genomics Network, Establishment Committee
Richard P Harvey (VCCRI)	Appointment to the Australian Genomics Health Mission: Australian Genomics Cardiovascular Genetic Disorders Flagship, Leadership Group
Simran Kaur (MCRI)	Bursary in Memory of Feminist Fathers for a Research Higher Degree Student
Sujitha Thavapalachandran (UoS)	Ralph Reader Prize (Best Research Basic Science Cardiac Society of Australia and New Zealand 2018)
Thierry Jardé (Monash)	EMBO/EMBL symposia fellowship (\$1000) to present work at the EMBO organoid meeting (Germany)
Thierry Jardé (Monash)	1st place poster prize, Cambridge International Stem Cell Symposium (UK)
Trevor Kilpatrick (Florey)	Appointment of Clinical Director at the Florey Institute of Neuroscience and Mental Health
Vaibhao Janbandhu (VCCRI)	Appointment: conjoint lecturer, St Vincent's Clinical School, UNSW
Xiaodong Liu (ARMI, Monash)	Carmela and Carmelo Ridolfo Prize in Stem Cell Research

International Conference Presentations

Attendee/ Presenter name	Type of presentation	Presentation Title	Conference	Location
Alberto Rosello Diez (ARMI, Monash)	Poster	A new approach to study organ repair: Cell responses in unilateral limb catch-up growth	ISSCR Annual Meeting 2018	Melbourne, Australia
Alexandra Grubman (Monash)	Speaker selected from Abstract	Plaque phagocytosis regulates microglial diversity in Alzheimer's disease	NNIDR Australian Dementia Forum (June 2018)	Sydney, Australia
Alexandra Grubman (Monash)	Speaker selected from Abstract	Distinct microglial subtypes in Alzheimer's disease mice	Stem Cells in Drug discovery and disease modelling satellite meeting	Melbourne, Australia
Alice Pébay (UoM)	Organising Committee Member		Australian Dementia Forum 2018	Sydney, Australia
Alice Pébay (UoM)	Invited talk	Modelling degeneration with iPSCs	DDB Stem Cells Therapeutic Symposium	Melbourne, Australia
Alice Pébay (UoM)	Invited talk	Pluripotent Stem Cell for glaucoma modelling	European Association for Vision and Eye Research,	Nice, France
Alice Pébay (UoM)	Invited talk	Modelling degeneration with iPSCs	FARA Scientific Symposium,	Melbourne, Australia
Alice Pébay (UoM)	Keynote	Modelling degeneration with iPSCs	International Precision Medicine in Glaucoma Conference,	Shenzhen, China
Alice Pébay (UoM)	Invited talk	Pluripotent Stem Cell Approaches to the Modelling of Diseases of the Eye and Brain	Organoids are us	Melbourne, Australia
Alice Pébay (UoM)	Invited talk	Pluripotent Stem Cell Approaches to the Modelling of Diseases of the Eye and Brain	Rare Disease: Australian Functional Genomics conference,	Melbourne, Australia
Alice Pébay (UoM)	Invited Speaker	Disease Models using Pluripotent Stem Cells	Stem Cells in Disease Modelling And Drug Discovery	Melbourne, Australia
Alison Conquest (UoM)	Poster	Monolayer culture of human pluripotent stem cell-derived photoreceptors from three-dimensional optic cup organoids.	ISSCR Annual Meeting 2018	Melbourne, Australia
Alistair Forrest (UWA)	Invited speaker	WA cancer single cell initiative	Human Cell Atlas-Asia	Jeju Island, South Korea
Alistair Forrest (UWA)	Invited presentation	Medical transcriptomics, moving towards single cell profiling	Invited Seminar, Nanfang University Hospital	Guangzhou, China
Amy Nicks (VCCRI)	Poster	Transcription factor expression during postnatal cardiomyocyte maturation	Weinstein 2018: Cardiovascular Development and Regeneration Meeting	Nara, Japan
Andrew Elefanty (MCRI)	Poster	Modeling the earliest events in acute myeloid leukaemia using human pluripotent stem cell differentiation	ISEH	Los Angeles, USA
Andrew Elefanty (MCRI)	Invited Seminar	Dissection of human haematopoiesis from pluripotent stem cells	Washington University	St Louis, USA
Anja Knaupp (ARMI, Monash)	Poster presentation	TINC: A Method to dissect transcriptional complexes at single locus resolution	ISSCR Annual Meeting 2018	Melbourne, Australia
Anja Knaupp (ARMI, Monash)	Invited Speaker	Locus specific characterisation of transcriptional complexes by TINC	11th Guangzhou International Conference on Stem Cell & Regenerative Medicine, November 2018	Guangzhou, China

Attendee/ Presenter name	Type of presentation	Presentation Title	Conference	Location
Anja Knaupp (ARMI, Monash)	Invited Speaker	TINC: A method to dissect transcriptional complexes at single locus resolution	ComBio2018	Sydney, Australia
Anthony Boghdadi (ARMI, Monash)	Poster	Peripheral macrophage infiltration post-stroke in the primate is attenuated by reactive astrocytes through NogoA-LILRB2 mediated signalling	SFN	San Diego, USA
Aude Dorison (VCCRI)	Poster	Understand the fate of cardiac PDGFRA+ cells in healthy and injured mouse hearts using single cell RNA-Seq.	International Society of Stem Cell Research Congress 20 - 23 June 2018	Melbourne, Australia
Aude Dorison (VCCRI)	Moderated Poster	Unravelling cardiac PDGFRA+ cell fate in diseased heart using single cell RNA-Seq	OZ Single Cell Meeting 2018	Sydney Australia
Aude Dorison (VCCRI)	Oral Presentation	Unravelling the fate of cardiac PDGFRA+ cells in healthy and injured mouse hearts using single cell RNA-Seq	St Vincent's Research and Postdoctoral Symposium	Sydney, Australia
Aude Dorison (VCCRI)	Poster	Unravelling cardiac PDGFRA+ cell fate in diseased heart using single cell RNA-Seq	Sydney Cardiovascular Symposium	Sydney, Australia
Ben Cao (CSIRO)	Poster	Cis-dimerised junctional adhesion molecule A is a critical regulator of HSC homing and maintenance in the niche	Hunter Cell Biology Meeting 2018	Hunter Valley, Australia
Ben Cao (CSIRO)	Poster	Junctional adhesion molecule A (JAM-A) is critical for HSC homing and engraftment post-transplant	ISSCR Annual Meeting 2018	Melbourne, Australia
Benjamin Rollo (Florey)	Poster	Stem cell-based modelling of SCN2A childhood epilepsy	Rare Disease: Australian Functional Genomics Conference	Melbourne, Australia
Brandon Wainwright (IMB, UQ)	Presentation	Elongator mutation in mice induces neurodegeneration and ataxia-like behavior.	Elongator in Development and Disease	Poland
Bryony Nayagam (UoM)	Poster	Molecular, Anatomical and Physiological Characteristics of Inner Ear Organoids: Comparisons to Human Fetal Inner Ear derived from human Pluripotent Stem Cells	The mid-winter meeting of the Association for Research in Otolaryngology	San Diego, USA
Cameron Hunt (Florey)	Poster	Tri-axial specification of the human ganglionic eminence using human pluripotent stem cells	ISSCR Annual Meeting 2018	Melbourne, Australia
Cameron Hunt (Florey)	Invited speaker	Tri-axial specification of the human ganglionic eminence using human pluripotent stem cells	Network of the European CNS Transplantation and Repair meeting (NECTAR)	Melbourne, Australia
Carlos Gantner (Florey)	Invited speaker	Tracking and promoting the plasticity of human pluripotent stem cell derived dopamine grafts in Parkinson's disease	Asia-Pacific Association for Neural Transplantation & Repair (APANTR)	Melbourne, Australia
Carlos Gantner (Florey)	Invited speaker	Mechanistic underpinnings of cortical lamination in hPSC-derived cortical progenitors	Network of the European CNS Transplantation and Repair meeting (NECTAR)	Paris, France
Christian Nefzger (ARMI, Monash)	Speaker Selected from abstract	Functional rejuvenation of aged intestinal stem cells by metabolic intervention and direct reprogramming	ISSCR Annual Meeting 2018	Melbourne, Australia
Christine Wells (UoM)	Invited speaker	The Stemformatics Atlas	6th Annual Australian Network of Cardiac and Vascular Developmental Biologists	Brisbane, Australia
Christine Wells (UoM)	Invited speaker	The Stemformatics Stem Cell Resource	Australasian Society for Stem Cell Research	Sydney, Australia
Christine Wells (UoM)	Invited member, Session chair	Tissue resident macrophages	FANTOM 6	Yokohama, Japan
Christine Wells (UoM)	Invited speaker,	Atlas approaches to cell identity	The Hunter Meeting	Hunter Valley, Australia

Attendee/ Presenter name	Type of presentation	Presentation Title	Conference	Location
Christine Wells (UoM)	Keynote Speaker	Systems and Synthetic biology	UQ Winter School in Mathematical and Computational Biology	Brisbane, Australia
Christine Wells (UoM)			Annual Lorne Genome Conference	Lorne, Australia
Christine Wells (UoM)	Invited Speaker		BDBSS - Brisbane Development Biology Seminar	Brisbane, Australia
Christine Wells (UoM)		Convergent Science: Opportunity for Mammalian Cell Design	Designed to Order - An Interdisciplinary Workshop	Melbourne, Australia
Christine Wells (UoM)			HUGO - Human Genome meeting	Yokohama, Japan
Christine Wells (UoM)	Invited Speaker	Cell identity in the era of single cell profiling.	ISFAG 2018 - Illumina Participation	Adelaide, Australia
Christine Wells (UoM)			ISSCR conference	Melbourne, Australia
Christine Wells (UoM)			Oz single cells 2018 in Sydney	Sydney, Australia
Christine Wells (UoM)		Computational platforms to define and predict cell behaviour	SCDMDD conference - Monash	Melbourne, Australia
Christine Wells (UoM)			Synthetic Biology future Science Platform workshop	Sydney, Australia
Christophe Marcelle (ARMI, Monash)	Invited speaker		EMBO Conference on Myogenesis	Berlin Germany
Christophe Marcelle (ARMI, Monash)	Invited speaker		International Avian Meeting	Paris, France
Claire Tanner (UoM)	Invited speaker/panel member	Patient perspectives, experiences and engagement, Panel: Setting ethical standards: Driving clinical translation and countering predatory marketing	International Society for Stem Cell Research (ISSCR)	Melbourne, Australia
Clare Parish (Florey)	Invited speaker	Modulating GDNF to improve survival and plasticity of human PSC-derived transplants in Parkinsonian rats	ISCT	Sydney, Australia
Clare Parish (Florey)	Invited speaker	GDNF gene therapy to promote graft integration in Parkinson's disease	ISSCR Annual Meeting 2018	Melbourne, Australia
Clare Tanner, Megan Munsie (UoM)	Oral	'You must click the button and donate': Online crowdsourcing to fund unproven stem cell treatments	4S - Society for Social Studies of Science	Sydney, Australia
Clare Tanner, Megan Munsie (UoM)	Oral	'You must click the button and donate': Online crowdsourcing to fund unproven stem cell treatments	4S - Society for Social Studies of Science	Sydney, Australia
Clare Tanner, Megan Munsie (UoM)	Oral	Patient voices: information needs in stem cell treatment decisions	The University of Melbourne: Language, Technology and Communication in Healthcare: Interdisciplinary research and engagement in 21st century healthcare	Melbourne, Australia
Clare Tanner, Megan Munsie, Douglas Sipp, Leigh Turner, Chloe Wheatland (UoM)	Oral	'You must click the button and donate': Online crowdsourcing to fund unproven stem cell treatments	International Society for Stem Cell Research Annual Conference	Melbourne, Australia
Clare Tanner, Megan Munsie, Douglas Sipp, Leigh Turner, Chloe Wheatland (UoM)	Oral	'You must click the button and donate': Online crowdsourcing to fund unproven stem cell treatments	International Society for Stem Cell Research Annual Conference	Melbourne, Australia
Clayton Friedman (IMB, UQ)	Invited Speaker	The transcriptional landscape of cardiac differentiation at single cell resolution	Weinstein Cardiovascular Development and Regeneration Annual Meeting	Nara, Japan

Attendee/ Presenter name	Type of presentation	Presentation Title	Conference	Location
Cristiana Mattei (UoM)	Poster	Generation of inner ear organoids enriched with mechanosensitive vestibular hair cells and otoconia derived from human pluripotent stem cells	ISSCR Annual Meeting 2018	Melbourne, Australia
Damian Hernandez (UoM)	Invited Speaker	Isogenic induced pluripotent stem cells to model of Alzheimer's disease	Australian Dementia Forum 2018	Sydney, Australia
Damian Hernandez (UoM)	Poster	Modelling Alzheimer's disease using single cell RNA sequencing analysis from human pluripotent stem cell-derived cerebral organoids.	ISSCR Annual Meeting 2018	Melbourne, Australia
Damian Hernandez (UoM)	Invited Speaker	Disease modelling with human pluripotent stem cells, from small to large scale cultures.	ISSCR-Focus session	Melbourne, Australia
Dan Blackmore (QBI, UQ)	Session speaker presentation	An exercise 'sweet spot' reverses cognitive deficits of ageing by growth hormone-induced neurogenesis	Australasian Neuroscience Society Annual Meeting	Brisbane, Australia
Dan Blackmore (QBI, UQ)	Symposium presentation	N/A	Public Dementia Forum	Brisbane, Australia
David Elliott (MCRI)	Local Organising Committee	ANCVDB 2018	Australian Network of Cardiac and Vascular Developmental Biologists	Melbourne, Australia
David Elliott (MCRI)	Invited Speaker	Human pluripotent stem cell models of heart development.	ComBio	Sydney, Australia
David K Gardner (UoM)	Organising committee, Session Chair	Alpha, 12th Biennial Conference	Reykjavik, Iceland	
David K Gardner (UoM)	Invited speaker	Metaboloepigenetics	Alpha, 12th Biennial Conference	Reykjavik, Iceland
David K Gardner (UoM)	Invited speaker	Development of an Antioxidant Strategy for Culture Media to Promote Embryo Development	Japan Fertility Society	Tokyo, Japan
David K Gardner (UoM)	Invited speaker	SSR-ASRM Exchange Lecture: Metabolism and Physiology of the Human Preimplantation Embryo	Society for the Study of Reproduction	New Orleans, USA
David K Gardner (UoM)	Invited speaker	Non-invasive Profiling of Embryos For the selection of Healthy Embryos to make Healthy Children	The 4th Biomarkers Meeting in Reproductive Medicine	Valencia, Spain
David Thorburn (MCRI)	Keynote Lecture	From Pontocerebellar Hypoplasia to Leigh Syndrome and beyond: an update on mitochondrial encephalopathies	Japanese Society of Child Neurology 60th Annual Meeting	Chiba, Japan
David Thorburn (MCRI)	Invited Speaker	Mitochondrial Diseases	XXII International Congress of Genetics	Foz do Iguaçu, Brazil
Dhanisha Jhaveri (QBI, UQ)	Poster	Evidence for newly generated interneurons in the basolateral amygdala of adult mice	Federation of European Societies of Neuroscience	Berlin, Germany
Dhanisha Jhaveri (QBI, UQ)	Plenary speaker	Targeting neural stem cells in the adult brain for the treatment of anxiety and depression	From health to well-being: An interdisciplinary approach from fundamental science to translational medicine.	Mumbai, India
Ekaterina Salimova (Monash)	Poster	Generating a repertoire of cardiac regulatory elements in development and disease	The FASEB Science Research Conference on Transcription, Chromatin & Epigenetics	Florence, Italy
Enzo Porrello (MCRI)	Chair, Local Organising Committee	ANCVDB 2018	Australian Network of Cardiac and Vascular Developmental Biologists	Melbourne, Australia
Enzo Porrello (MCRI)	Invited Speaker	Transcriptional regulation of heart development and regeneration.	American Heart Association - Basic Cardiovascular Sciences	San Antonio, USA
Enzo Porrello (MCRI)	Invited Speaker	Beta-catenin drives distinct transcriptional networks in regenerative and non-regenerative cardiomyocytes.	COMBIO	Sydney, Australia

Attendee/ Presenter name	Type of presentation	Presentation Title	Conference	Location
Enzo Porrello (MCRI)	Invited Speaker	High-content screening in human cardiac organoids identifies key proliferative pathways without functional side-effects.	Functional High Throughput Technologies Australia (FHTTA)	Canberra, Australia
Enzo Porrello (MCRI)	Scientific Program Committee	ISHR World Congress	International Society for Heart Research	Beijing, China
Ernst Wolvetang (UQ)	Invited speaker	Nutraceutical rescue of pathological changes in ipsc-derived neural cell types from a childhood leukodystrophy caused by mutations in aspartate trna synthetase (dars).	ISSCR Annual Meeting 2018	Melbourne, Australia
Ernst Wolvetang (UQ)	Keynote speaker.	Functional genomics approaches to human neurological diseases.	SCDMDD 2018.	Melbourne, Australia
Ernst Wolvetang (UQ)	Invited speaker	Nutraceutical rescue of pathological changes in iPSC-derived neural cell types from a childhood leukodystrophyc caused by mutations in Aspartate-tRNA synthetase (DARS)	Hunter Cell Biology Meeting 2018	Hunter Valley, Australia
Ernst Wolvetang (UQ)	Invited	Elucidating the impact of APP in DS pathogenesis using stem cell models	Combio	Sydney, Australia
Ernst Wolvetang (UQ)	Invited	Functional genomics approaches to neurological diseases with human induced pluripotent cells.	Seminar	Amsterdam, The Netherlands
Ethan Liu (ARMI, Monash)	Poster Teaser	Integrative molecular analyses reveal distinct reprogramming trajectories into states of naïve and primed human induced pluripotency	ISSCR Annual Meeting 2018	Melbourne, Australia
Grace Lidgerwood (UoM)	Poster	The role of lysophosphatidic acid and autotaxin in the retinal pigment epithelium and photoreceptors	ISSCR Annual Meeting 2018	Melbourne, Australia
Grace Lidgerwood (UoM)	Invited talk	Modelling retinal degeneration using iPSCs	Optic Nerve Conference,	Obergurgl, Austria
Hananeh Fonoudi (VCCRI)	Oral Presentation	Dissecting molecular causation of hypoplastic left heart syndrome using induced pluripotent stem cells	ANZSCDB NSW Cell & Development Biology Meeting	Sydney Australia
Hananeh Fonoudi (VCCRI)	Oral Presentation	Unraveling common pathogenic pathways underlying the formation of hypoplastic left heart syndrome	ComBio	Sydney, Australia
Hananeh Fonoudi (VCCRI)	Poster	Hypoplastic left heart syndrome: complex genetics, shared pathogenic pathway	International Society of Stem Cell Research Congress 20 - 23 June 2018	Melbourne, Australia
Harald Janovjak (Monash)	Invited Speaker	Synthetic physiology: Optical control of islet cell signaling	11th Australian Islet Study Group Meeting	Canberra, Australia
Harald Janovjak (Monash)	Invited Speaker	Optical control of Growth Factor Signals	International Symposium on Growth Factors in Disease and Therapy	Hangzhou and Wenzhou, China
Harald Janovjak (Monash)	Invited Speaker	A plant ionotropic receptor for orthogonal control of neuronal activity and synthetic neurotransmission	Genetic Manipulation of Neuronal Activity	Ashburn, USA
Harald Janovjak (Monash)	Invited Speaker	Optical control of Growth Factor Signals	Science without borders symposium, EMBL Heidelberg	Heidelberg, Germany
Harald Janovjak (Monash)	Invited Speaker	Optical control of Growth Factor Signals	Chinese University of Hong Kong	Hong Kong
Helen Abud (Monash)	Oral	Using gastrointestinal organoids to model disease and study stem cell function	WMU-BDI Research Symposium	Wenzhou, China
Hue M. La (Monash)	Poster	Characterising the role of Tsc22d3 in germline stem cell function	ISSCR Annual Meeting 2018	Melbourne, Australia

Attendee/ Presenter name	Type of presentation	Presentation Title	Conference	Location
Isabelle de Luzy (Florey)	Abstract- selected oral presentation	Isolation of LMX1a ventral midbrain progenitors improves the safety and predictability of human pluripotent stem cell-derived neural transplants in Parkinsonian Disease	ISSCR Annual Meeting 2018	Melbourne, Australia
Isabelle de Luzy (Florey)	Invited speaker	Improving cell therapy for clinical translation in Parkinson's disease	SCA retreat	Melbourne, Australia
James Bourne (ARMI, Monash)	Oral	The development of the pulvinar	Anatomical Society Summer Meeting	Oxford, UK
James Bourne (ARMI, Monash)	Keynote	Thalamocortical circuits	Gordon Research Conference - Thalamocortical Interactions	Il Ciocco, Italy
James Bourne (ARMI, Monash)	Poster	Early-life lesions of visual cortical area MT leads to alterations in visuoMotor behaviour	Neuroscience	San Diego, USA
James Bourne (ARMI, Monash)	Oral	An international framework for nonhuman primate research	International Neuroethics Summit	Seoul, South Korea
James Bourne (ARMI, Monash)	Oral	The NHMRC grant review process	NHMRC Australia-Vietnam Collaborative Program	Vietnam
James Chong (UoS)	Panelist	Transitioning to a successful career in Cardiovascular Medicine & Research – “If I Knew Then What I Know Now”	1st Cardiovascular Olympiad	Athens, Greece
James Chong (UoS)	Invited presentation	Modulating myocardial infarct matrix with PDGF	6th Annual Australian Network of Cardiac and Vascular Developmental Biologists, Symposium	Melbourne, Australia
James Chong (UoS)	Invited presentation	From Basic Cardiac Regeneration to Clinical Application	Basic Cardiovascular Sciences Scientific Sessions	Chicago, USA
James Chong (UoS)	Invited presentation	Cardiac Repair: Factors, Fibroblasts and Telomerase”	Institute for Stem Cells and Regenerative Medicine	Seattle USA
John Christodoulou (MCRI)	Oral – Late Breaking session	NAD(P)HX Dehydratase (NAXD) deficiency: a novel neurodegenerative disorder exacerbated by febrile illnesses	ESHG 2018	Milan, Italy
John Christodoulou (MCRI)	Oral presentation	NAXD mutations cause a novel neurodegenerative disorder exacerbated by febrile illnesses.	European society of human genetics Conference June 2018	Milan, Italy
John Christodoulou (MCRI)		NAXD deficiency: a severe, episodic, multisystem disorder presenting in childhood.	Genomics of Rare Disease conference March 2018	Cambridge
John Christodoulou (MCRI)	Poster presentation	Brain Cells in a dish: strategies for therapeutics in CDKL5 disorder	International Society for Stem Cell Research, June 2018	Melbourne, Australia
John Christodoulou (MCRI)	Oral presentation.	NAXD deficiency: a novel neurodegenerative disorder exacerbated by febrile illness.	Manchester dysmorphology conference November, 2018	Manchester
Jose Polo (ARMI, Monash)	Invited Speaker	Exploring the boundaries of transcription factor reprogramming	Hunter Cell Biology Meeting 2018	Hunter Valley, Australia
Jose Polo (ARMI, Monash)	Invited Speaker	Chromatin and transcription factor dynamics during reprogramming	ISSCR Annual Meeting 2018	Melbourne, Australia
Jose Polo (ARMI, Monash)	Invited Speaker	Exploring the boundaries transcription factor nuclear reprogramming	Lowy Cancer Research Centre Seminar Series, UNSW	Sydney, Australia
Jose Polo (ARMI, Monash)	Invited Speaker	Exploring the boundaries of transcription factor mediated reprogramming	Signature Series at DUKE-NUS	Singapore
Jose Polo (ARMI, Monash)	Invited Speaker	Exploring the boundaries of TF reprogramming to produce neurons	South Australian Health & Medical Research Institute (SAHMRI) Annual Scientific Meeting	Adelaide, Australia
Jose Polo (ARMI, Monash)	Invited Speaker	A roadmap to the reprogramming of human naïve and primed pluripotency	11th Guangzhou International Conference on Stem Cell & Regenerative Medicine, November 2018	Guangzhou, China

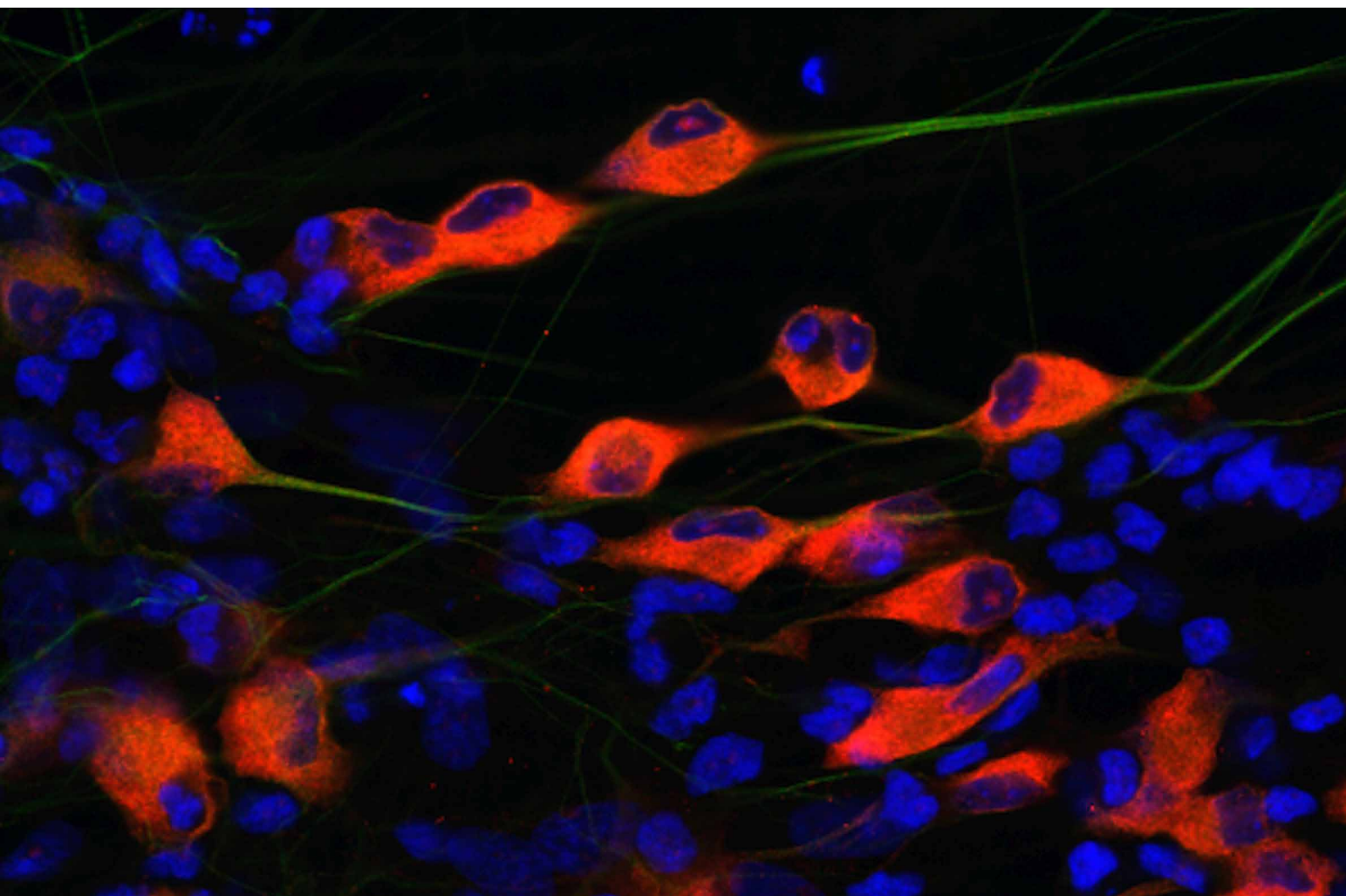
Attendee/ Presenter name	Type of presentation	Presentation Title	Conference	Location
Jose Polo (ARMI, Monash)	Invited Speaker	Expanding the boundaries of cell reprogramming	Viertel Symposium, October 24th 2018	Brisbane, Australia
Joseph Chen (Monash)	Speaker Selected from abstract	Using a predictive computational algorithm to establish a universal transcription factor enhanced differentiation framework	ISSCR Annual Meeting 2018	Melbourne, Australia
Joseph Chen (Monash)	Invited Speaker	Establishing novel enhanced differentiation protocols of human pluripotent stem cells into various cell lineages using the predictive computational framework, Mogrify	SCDMDD -Stem Cells in Disease Modelling and Drug Discovery	Melbourne, Australia
Julien Legrand (Monash)	Poster	Post-transcriptional regulators of germline stem cell function	ISSCR Annual Meeting 2018	Melbourne, Australia
Justin Cooper-White (AIBN, UQ)	Plenary	Exploring the nexus between biomaterial mechanics, tissue mechanics and gene therapy for enhanced tissue genesis and repair	19th Korean Tissue Engineering and Regenerative Medicine Scientific Meeting (KTERMS)	Seoul, South Korea
Justin Cooper-White (AIBN, UQ)	Keynote	Exploiting gene therapy and matrix mechanics for enhanced tissue genesis and repair	6th Asian Universities Symposium on Biomedical Engineering	Seoul, South Korea
Justin Cooper-White (AIBN, UQ)	Plenary	Combating mechano-driven stem cell fate with advanced biomaterials to enhance tissue repair and functional recovery	7th Malaysian Tissue Engineering and Regenerative Medicine Scientific Meeting (MTERMS)	Kuala Lumpur, Malaysia
Justin Cooper-White (AIBN, UQ)	Keynote	Exploiting iPSC-derived cardiac tissues and microfluidic devices to create better in vitro models of ischemia-reperfusion injury (IRI) and screen small molecule therapeutics for enhanced repair	Advanced Techniques and Therapies in Cardiovascular Care	Venice, Italy
Justin Cooper-White (AIBN, UQ)	Contributed	Super resolution and organoid compatible, microfabricated interaction devices for studying sub-cellular single molecule transport and multicellular interactomes	Australia-New Zealand Nano- and Micro-Fluidics Annual Meeting	Auckland, New Zealand
Kanupriya Tiwari (UQ)	Poster	Tissue independent modelling of steady state splicing mechanism	INCoB 2018	Delhi, India
Kanupriya Tiwari (UQ)	Poster	Bayesian neural network based modelling of steady-state splicing mechanism	Lorne Genome Conference	Lorne, Australia
Kathryn Davidson (ARMI, Monash)	Poster presentation	Engineering nonhuman primate stem cells with clinically relevant functional elements to develop a cell therapy for stroke	ISSCR Annual Meeting 2018	Melbourne, Australia
Kim-Anh Lê Cao (UoM)	Invited keynote	Navigating through 'omics data	EMBL Australia	Brisbane, Australia
Kim-Anh Lê Cao (UoM)	Invited	Multivariate microbiome data analysis	International biometrics conference	Barcelona, Spain
Kim-Anh Lê Cao (UoM)	Invited	Integrative multivariate computational methods for single cell assays	Oz single cell	Sydney, Australia
Lars Nielsen (AIBN, UQ)	Invited talk	Learning to design, designing to learn: the dual problem of automated strain engineering	7th International Yeast 2.0 and Synthetic Genomes Conference	Sydney, Australia
Lars Nielsen (AIBN, UQ)	Invited talk	Metabolic Models for Plant Synthetic Biology Design	Revolutionizing Agriculture with Synthetic Biology	Long Island, USA
Lars Nielsen (AIBN, UQ)	Keynote	Biologics 4.0: emergence of the CHO Biofoundry (Taming of the hamster)	Metabolic Engineering 12	Munich, Germany
Linda Harkness, Xiaoli Chen (AIBN, UQ)	Posters	1)Generation of 3D pluripotent stem cell aggregates using thermoresponsive nanobridges and their differentiation to the neural lineages.	ISSCR Annual Meeting 2018	Melbourne, Australia

Attendee/ Presenter name	Type of presentation	Presentation Title	Conference	Location
Linda Harkness, Xiaoli Chen (AIBN, UQ)	Posters	2) Use of the nanobridge system as a scale-up platform for pluripotent human embryonic stem cells.	ISSCR Annual Meeting 2018	Melbourne, Australia
Maciej Daniszewski (UoM)	Poster	Refining retinal ganglion cell (RGC) differentiation from human pluripotent stem cells.	ARVO Annual Meeting	Hawaii, USA
Maciej Daniszewski (UoM)	Poster	Human induced pluripotent stem cells in glaucoma modelling with a robotic platform	ISSCR Annual Meeting 2018	Melbourne, Australia
Maciej Daniszewski (UoM)	Invited Speaker (representing Pébay who could not attend)	Using patient-specific induced pluripotent stem cells (iPSCs) to model retinal disease	Select Biosciences- Stem cells and antibodies in drug discovery Europe 2018	Cambridge, UK
Megan Munsie (UoM)	Invited speaker	Travails of a biologist: hope, hype, ethics & activism.	Kyushu University Bioethics Forum	Fukuoka, Japan
Megan Munsie (UoM)	Invited speaker	Public Engagement Efforts: lessons learnt from stem cell science.	Second International Summit on, Human Genome Editing	Hong Kong
Melanie Domingues (CSIRO)	Oral	Identification of adult endothelial stem cells with revascularisation potential	ISSCR Annual Meeting 2018	Melbourne, Australia
Melissa Little	Invited Speaker	Symposium – Re-building a Kidney	ICCB Conference	Hyderabad, India
Melissa Little	Invited Speaker	Re-creating Kidney tissue from stem cells: progress & challenges	IWDN Conference	Ein Gedi, Israel
Melissa Little	Invited Speaker	From Stem Cells to Human Development		Dorking, UK
Melissa Little	Invited Speaker	Recreating kidney tissue	EMBL Organoid Symposia	Heidelberg, Germany
Melissa Little	Invited Speaker & Plenary Chair	Applications for Kidney Organoids: Cellular Identity, Scale & Function	ASN Conference	San Diego, USA
Melissa Little	Invited Speaker	Generating human kidney tissue from pluripotent stem cells	Royal College of Physicians	Edinburgh, UK
Melissa Little	Invited Speaker		Gurdon Institute	Cambridge, UK
Melissa Little	Seminar Invite	The Azrieli Center for Stem Cells & Genetic Research	Jerusalem, Israel	
Mirana Ramialison	Flash talk/ Poster	Role of Elk1 in heart development and disease	ZDM11 Zebrafish Disease Model conference	Leiden, Netherlands
Mirana Ramialison	Invited Speaker	3D-cardiomics	7th Australian Network of Cardiac and Vascular Dev. Biologists Meeting	Melbourne, Australia
Mirana Ramialison	Poster	3D-cardiomics	ABACBS 2018	Melbourne, Australia
Nathan Palpant (UQ)	Invited Speaker	The transcriptional landscape of cardiac differentiation at single cell resolution	Basic Cardiovascular Sciences Scientific Sessions	San Antonio, Texas, USA
Nathan Palpant (UQ)	Oral	Transcriptional analysis of cardiac differentiation from human pluripotent stem cells at single cell resolution	Cold Spring Harbor, Frontiers in Single Cell Genomics	Suzhou, China
Nathan Palpant (UQ)	Invited speaker	The transcriptional landscape of cardiac differentiation at single cell resolution	International Society for Stem Cell Research, Concurrent I: Cardiac Development and Disease.	Melbourne, Australia

Attendee/ Presenter name	Type of presentation	Presentation Title	Conference	Location
Nick Glass (AIBN, UQ)	Contributed	Microfluidic devices for high throughput investigation of in vitro and in vivo angiogenesis	Australia-New Zealand Nano- and Micro-Fluidics Annual Meeting	Auckland, New Zealand
Nicole Van Bergen (MCRI)	Oral presentation	NAD(P)HX Dehydratase (NAXD) deficiency: a novel neurodegenerative disorder exacerbated by febrile illnesses.	International Congress of Inborn Errors of Metabolism	Rio De Janeiro, Brazil
Nicole Van Bergen (MCRI)	Poster	Brain cells in a dish: strategies for novel therapeutics in CDKL5 disorders	ISSCR Annual Meeting 2018	Melbourne, Australia
Nona Farbehi (VCCRI)	Poster	Single-cell expression profiling reveals distinct sub-populations in the cardiac stroma through homeostasis and injury response	International Society of Stem Cell Research Congress 20 - 23 June 2018	Melbourne, Australia
Nona Farbehi (VCCRI)	Invited speaker	Quantifying cellular heterogeneity for tissue repair using single cell RNA seq	ISCT 2018 Meeting,	Sydney, Australia
Nona Farbehi (VCCRI)	Poster	Single-cell expression profiling reveals the dynamics of stromal, vascular and immune cells in cardiac homeostasis and injury	OZ Single Cell 2018	Sydney, Australia
Nona Farbehi (VCCRI)	Organiser and presenter	Microfluidics Workshop	OZ Single Cell 2018	Sydney, Australia
Richard P Harvey (VCCRI)	Convenor	Heart Regeneration	Australian Consortium for Heart Regeneration	Sydney, Australia
Richard P Harvey (VCCRI)	Invited Platform meeting presentation	Heart Biology, Anatomy, Cell Types and Open Questions	British Heart Foundation Human Cardiovascular Cell Atlas Workshop 25/01/2018	Cambridge, UK
Richard P Harvey (VCCRI)	Invited Platform meeting presentation	The role of hypoxia in the repair of the heart	Cardiac Society of Australia and New Zealand Annual Scientific Meeting	Brisbane, Australia
Richard P Harvey (VCCRI)	Keynote Speaker	Therapeutic targeting of mesenchymal stem/stromal cells in the adult mammalian heart	Inaugural Meeting Muscle Biology in Health & Disease Conference - Singapore 1 - 2 March 2018	Singapore
Richard P Harvey (VCCRI)	Organising Committee	Fundraising and Abstract Reviewing	International Society of Stem Cell Research Congress 20 - 23 June 2018	Melbourne, Australia
Richard P Harvey (VCCRI)	Presentation	Eliciting Heart Regeneration through Cardiomyocyte Division	Leducq 2 Grant Consortium Meeting	Chicago, USA
Richard P Harvey (VCCRI)	Invited Platform meeting presentation	Modelling genetic risk in cardiovascular disease	Rare Diseases: Australian Functional Genomics Conference	Melbourne, Australia
Richard P Harvey (VCCRI)	Invited Speaker	Modelling cardiac chamber development and disease in iPS cells and mice	RIKEN Centre for Biosystems Dynamics Research	Kobe, Japan
Richard P Harvey (VCCRI)	Participant	Sometimes the sum of the parts is greater than the whole	Single Cell Genomics Conference	Cambridge, USA
Robin Hobbs (Monash)	Invited Speaker	Molecular mechanisms regulating germline stem cell function and fate	Croucher Foundation Course on Stem Cell Biology and Regenerative Medicine	Hong Kong
Robin Hobbs (Monash)	Poster	Characterization of metastable undifferentiated cell states within the male mouse germline	ISSCR Annual Meeting 2018	Melbourne, Australia

Attendee/ Presenter name	Type of presentation	Presentation Title	Conference	Location
Ryan Lister (UWA)	Invited speaker	Editing the Epigenome	Cold Spring Harbor Asia Conference on Systems Biology of Genome Regulation & Engineering	Suzhou, China
Ryan Lister (UWA)	Invited speaker	The shifting DNA methylation landscape during human naive and primed reprogramming	11th Guangzhou International Conference on Stem Cells and Regenerative Medicine	Guangzhou, China
Saed Fahd, Megan Munsie, Clare Tanner, Meredith Temple-Smith (UoM)	Oral	Views and practices of Australian GPs in the management of people's pursuit of unproven stem cell treatments	International Society for Stem Cell Research Annual Conference	Melbourne, Australia
Saed Fahd, Megan Munsie, Clare Tanner, Meredith Temple-Smith (UoM)	Oral	Views and practices of Australian GPs in the management of people's pursuit of unproven stem cell treatments	International Society for Stem Cell Research Annual Conference	Melbourne, Australia
Shen Heazlewood (CSIRO)	Poster	Large cytoplasmic megakaryocytes are responsible for platelet release	Hunter Cell Biology Meeting 2018	Hunter Valley, Australia
Shen Heazlewood (CSIRO)	Poster	High Ploidy Large Cytoplasmic Megakaryocytes are Responsible for Platelet Production	ISSCR Annual Meeting 2018	Melbourne, Australia
Shen Heazlewood (Presented by Minni Anko) (CSIRO)	Poster	Generation of Mature Megakaryocytes and Functional Platelets is Controlled by RNA Processing	ISSCR Annual Meeting 2018	Melbourne, Australia
Siiri Iismaa (VCCRI)	Poster	Cardiomyocyte hypertrophy limits infarct expansion after myocardial infarct in mice	Weinstein 2018: Cardiovascular Development and Regeneration Meeting	Nara, Japan
Simran Kaur (MCRI)	Poster	Novel gene discoveries in Rett Syndrome	ISSCR Annual Meeting 2018	Melbourne, Australia
Snezana Maljevic (Florey)	Talk	Genetic epilepsy – genes, mechanisms and targeted therapy	Florey Neuroscience Seminar Series	Melbourne, Australia
Stefano Frausin (Florey)	Poster	Specification of motor neuron subpopulations from human pluripotent stem cells & their transplantation	ISSCR Annual Meeting 2018	Melbourne, Australia
Susie Nilsson (CSIRO)	Invited Speaker	Nutraceutical rejuvenation of aged HSC	3rd Australian Biology of Ageing Conference	Brisbane, Australia
Susie Nilsson (CSIRO)	Invited Speaker	Nutraceutical rejuvenation of aged HSC	Hunter Cell Biology Meeting 2018	Hunter Valley, Australia
Susie Nilsson (CSIRO)	Invited Speaker	The clinical application of our improved understanding of the bone marrow niche	Symposium on Regenerative Biology and Tissue Engineering	Hong Kong
Thierry Jardé (Monash)	Poster/Oral	Age-related defects of intestinal stem cells and functional rejuvenation revealed using organoid cultures	EMBO Organoid conference	Heidelberg, Germany
Tobias Merson (ARMI, Monash)	Poster	Regeneration of NG-2 glia following pharmacogenetic ablation in the adult central nervous system	Glia in Health & Disease	Cold Spring Harbor, USA
Trevor Kilpatrick (Florey)	Plenary	Interrogation of the Pathogenesis of Progressive MS for Therapeutic Benefit	International Society of Neuroimmunology	Brisbane, Australia
Trevor Kilpatrick	Plenary (Also on the scientific organising committee)	Interrogation of the pathogenesis of progressive MS for therapeutic benefit.	International Society of Neuroimmunology	Brisbane, Australia

Attendee/ Presenter name	Type of presentation	Presentation Title	Conference	Location
Vaibhao Janbandhu (VCCRI)	Young Scientist Presentation	Consequences of Hif1a deletion in PDGFRa+ cells	Leducq 1 Consortium Annual Meeting 11 – 13 April 2018	New York, USA
Vanessa Penna (Florey)	Poster	A novel methods to assess the transcriptional profile of xenogeneic transplants: Assessing human stem cell grafts in Parkinson's disease	ISSCR Annual Meeting 2018	Melbourne, Australia
Xiaodong Liu (ARMI, Monash)	Poster Presentation	Integrative molecular analyses reveal distinct reprogramming trajectories into states of naïve and primed human induced pluripotency	11th Guangzhou International Conference on Stem Cell & Regenerative Medicine, November 2018	Guangzhou, China
Xuan Sun (CSIRO)	Oral	Vitamin B12 supplementation rejuvenates aged HSC in mice	Hunter Cell Biology Meeting 2018	Hunter Valley, Australia



International Collaborations and Visitors

International Collaborations

SCA researcher collaborating	Collaborator	Collaborating Centre
Alberto Rosello Diez (ARMI, Monash)	Dr Alexandra Joyner	Memorial Sloan Kettering Cancer Center, USA
Andrew Elefanty, Ed Stanley (MCRI)	Professor Constanze Bonifer	University of Birmingham
Andrew Elefanty, Ed Stanley (MCRI)	Professor Hanna Mikkola	UCLA, USA
Anja Knaupp (ARMI, Monash)	Assistant Professor Owen Rackham	National University of Singapore, Singapore
Anja Knaupp (ARMI, Monash)	Professor Miguel Esteban	Guangzhou Institutes of Biomedicine and Health, Chinese academy of Science, China
Anja Knaupp (ARMI, Monash)	Professor Jeroen Krijgsveld	German Cancer Research Center (DKFZ)
Anja Knaupp (ARMI, Monash)	Dr Paloma Garcia	Institute of Cancer and Genomic Sciences at the University of Birmingham, UK
Brandon Wainwright (IMB, UQ)	Dr Sebastian Glatt	Max Planck Laboratory, Krakow, Poland
Christine Wells (UoM)	Dr Karen Keeshan	University of Glasgow, Scotland
Christine Wells (UoM)	Dr Ruaidhri Carmody	University of Glasgow, Scotland
Christine Wells (UoM)	Dr Sho Yamasaki	Osaka University, Japan
Christine Wells (UoM)	Dr Kenneth Baillie	Edinburgh University, Scotland
Christine Wells (UoM)	FANTOM	RIKEN, Japan
Christine Wells (UoM)	Dr Karen Keeshan	University of Glasgow, Scotland
Christine Wells (UoM)	Dr Ruaidhri Carmody	University of Glasgow, Scotland
Christine Wells (UoM)	FANTOM5 Piero Carninci	Centre for Developmental Biology, RIKEN, Japan
Christine Wells (UoM)	Dr Francesco Saverio Tedesco	University College London, UK
Christine Wells (UoM)	Dr Kenneth Baillie	University of Edinburgh, Scotland
Christine Wells (UoM)	Associate Professor Holly Rosenzweig	Oregon Health & Science University
Christophe Marcelle (ARMI, Monash)	Professor Nadia Rosenthal	Jackson Laboratory, USA
Christophe Marcelle (ARMI, Monash)	Professor Luis Garcia	University Versailles, France
Christophe Marcelle (ARMI, Monash)	Professor Michael Sieweke	UT Dresden, Germany
Christophe Marcelle (ARMI, Monash)	Professor Nadia Rosenthal	Jackson Laboratory, USA

SCA researcher collaborating	Collaborator	Collaborating Centre
Christophe Marcelle (ARMI, Monash)	Professor Luis Garcia	University Versailles, France
Christophe Marcelle (ARMI, Monash)	Professor Michael Sieweke	UT Dresden, Germany
Claire Tanner (UoM)	Dr Jan Barfoot	Edinburgh University, Scotland
Claire Tanner (UoM)	Professor Clare Blackburn	Edinburgh University, Scotland
Claire Tanner (UoM)	Dr Amy Zarzeczny	University of Regina, Saskatchewan, Canada
Claire Tanner (UoM)	Dr Doug Sipp	Centre for Developmental Biology, RIKEN, Japan
Claire Tanner (UoM)	Dr Leigh Turner	University of Minnesota, USA
Claire Tanner (UoM)	Professor Jane Calvert	Edinburgh University, Scotland
Claire Tanner (UoM)	Dr Zubin Master	Mayo Clinic, US
Clare Parish (Florey)	Professor David Nisbet	Australian National University, Australia
Clare Parish (Florey)	Dr Eilis Dowd	Galway University, Ireland
Clare Parish/Lachlan Thompson (Florey)	Professor Deniz Kirik	Lund University, Sweden
Clare Parish/Lachlan Thompson (Florey)	Dr Birgitt Schuele	The Parkinson's Institute, USA
Colin Pouton (MIPS, Monash)	Assistant Professors Owen Rackham and Enrico Petretto	National University of Singapore, Singapore
Colin Pouton (MIPS, Monash)	Associate Professor Matt Blurton-Jones	University of California, USA
David Elliott (MCRI)	Associate Professor Reza Ardehali	UCLA, USA
David Elliott (MCRI)	Professor Perry Elliott	UCLA, USA
David K Gardner/Alexandra Harvey (UoM)	Professor Steve Dalton	University of Georgia, USA
Enzo Porrello (MCRI)	Qing-Dong Wang	AstraZeneca, Sweden
Jessica Mar (UQ)	Dr Nir Barzilai	Albert Einstein College of Medicine, USA
Jessica Mar (UQ)	Associate Professor Cristina Montagna	Albert Einstein College of Medicine, USA
John Haynes (MIPS, Monash)	Dr Mark Bücking	Fraunhofer-IME, Germany
Jose Polo (ARMI, Monash)	Assistant Professor Owen Rackham, Associate Professor Enrico Petretto	National University of Singapore, Singapore
Jose Polo (ARMI, Monash)	Professor Amander Clark	UCLA Molecular Biology Institute, Los Angeles, California, USA
Jose Polo (ARMI, Monash)	Assistant Prof Owen Rackham	National University of Singapore, Singapore
Jose Polo (ARMI, Monash)	Associate Professor Enrico Petretto	National University of Singapore, Singapore
Jose Polo (ARMI, Monash)	Professor Amander Clark	UCLA Molecular Biology Institute, Los Angeles, California, USA
Justin Cooper-White (AIBN, UQ)	Peter Winlove, Tim Holsgrove, Junning Chen	Exeter University, UK

SCA researcher collaborating	Collaborator	Collaborating Centre
Kim-Anh Lê Cao (UoM)	Associate Professor Scott Tebutt; Dr Casey Shannon	University of British Columbia, Canada
Kim-Anh Lê Cao (UoM)	Professor Tobi Kollman	University of British Columbia, Canada
Kim-Anh Lê Cao (UoM)	Dr Olivier Chapleur	IRSTEA, France
Kim-Anh Lê Cao (UoM)	Professor Aedin Culhane	Harvard T.H. Chan School of Public Health, USA
Kim-Anh Lê Cao (UoM)	Associate Professor Elana Fertig	John Hopkins University, USA
Kim-Anh Lê Cao (UoM)	Professor Le Luo Guan and Mr Andre Neves	University of Alberta, Canada
Kim-Anh Lê Cao (UoM)	Associate Professor Arnaud Droit, Mr Antoine Bodein	Université Laval, Canada
Megan Munsie (UoM)	Professor Jane Calvert	Edinburgh University, Scotland
Megan Munsie (UoM)	Professor Clare Blackburn	Edinburgh University, Scotland
Megan Munsie (UoM)	Dr Amy Zarzeczny	University of Regina, Canada
Megan Munsie (UoM)	Assistant Professor Tamra Lysaght	National University of Singapore, Singapore
Megan Munsie (UoM)	Dr Doug Sipp	Centre for Developmental Biology, RIKEN, Japan
Megan Munsie (UoM)	Professor Maja Horst	University of Copenhagen, Denmark
Megan Munsie (UoM)	Dr Leigh Turner	University of Minnesota, USA
Megan Munsie (UoM)	Professor Jane Calvert	Edinburgh University, Scotland
Melissa Little (MCRI)	Professor Anton J Rabelink	Leiden University Medical Center, Leiden, The Netherlands
Melissa Little (MCRI)	Professor Andrew McMahon, Dr Lori O'Brien	University of Southern California, USA
Melissa Little (MCRI)	Professor George Daley	Harvard Stem Cell Institute, USA
Melissa Little (MCRI)	Professor Rachel Lennon	Manchester University, UK
Melissa Little (MCRI)	Benjamin Shepherd, Alice Chen and Will Higgins	Organovo Inc, San Diego, USA
Melissa Little (MCRI)	Professor Tobias Huber	University of Freiberg, Germany
Melissa Little (MCRI)	Professor Helen Byrne	Oxford University, UK
Melissa Little (MCRI)	Professor Rafi Kopan	Cincinnati Childrens Hospital, US
Michele Binder (Florey)	Professor Dr Mikael Simons	Gottingen University, Germany
Nathan Palpant (UQ)	Professor Hannele Ruohola-Baker	University of Washington, USA
Nathan Palpant (UQ)	Dr Charles Murry	University of Washington, USA
Nathan Palpant (UQ)	Dr James Martin	Baylor College of Medicine, USA
Nathan Palpant (UQ)	Professor Ziv Bar-Joseph	Carnegie Melon University, USA
Partha Das	Professor Stuart Orkin	Harvard Medical School, USA
Partha Das	Professor Dan Bauer	Harvard Medical School, USA
Partha Das	Assistant Professor Effie Apostolou	Cornell University, USA
Peter Gray, Linda Harkness, Xiaoli Chen (AIBN, UQ)	Drs Nicholas Timmins, Peter Zandstra	CCRM, Canada.
Richard P Harvey (VCCRI)	Dr Robert G Kelly	Aix-Marseille Université, France
Richard P Harvey (VCCRI)	Dr Lucile Miquero	Aix-Marseille Université, France

SCA researcher collaborating	Collaborator	Collaborating Centre
Richard P Harvey (VCCRI)	Dr Pascal Motreff	French National Centre for Scientific Research CNRS Department of Cardiology, Gabriel Montpied Hospital, University Hospital Clermont-Ferrand, France
Richard P Harvey (VCCRI)	Dr Nabila Bouatia Naji	Paris Cardiovascular Research Centre, France
Richard P Harvey (VCCRI)	Dr Surabhi Srivastava	Centre for Cellular and Molecular Biology, India
Richard P Harvey (VCCRI)	Dr Rakesh K Mishra	Centre for Cellular and Molecular Biology, India
Richard P Harvey (VCCRI)	Professor Jyotsna Dhawan	Centre for Cellular and Molecular Biology, India
Richard P Harvey (VCCRI)	Associate Professor Jason C Kovacic	The Mount Sinai Hospital and the Icahn School of Medicine Cardiovascular Research Center, USA
Richard P Harvey (VCCRI)	Professor Dr Stefanie Dimmeler	University of Frankfurt, Germany
Richard P Harvey (VCCRI)	Professor Toren Finkel	University of Pittsburgh School of Medicine, USA
Richard P Harvey (VCCRI)	Dr Elena Aikawa	Harvard Medical School, USA
Richard P Harvey (VCCRI)	Dr Guido Krenning	University of Groningen, Groningen, Netherlands
Richard P Harvey (VCCRI)	Professor Andrew Baker	Edinburgh University, Scotland
Robert Graham (VCCRI)	Professor Nenad Bursac	Duke University, NC, USA
Robin Hobbs (Monash)	Professor Tin Lap Lee	Chinese University of Hong Kong, Hong Kong
Steven Petrou (Florey)	Associate Professor Marius Wernig	Stanford University, USA
Trevor Kilpatrick (Florey)	Dr Jack Antel	Montreal Neuroscience Institute, Canada
Trevor Kilpatrick (Florey)	Dr Boris Zalc	Hopital de la Salpetriere, France
Trevor Kilpatrick (Florey)	Professor Greg Lemke	Salk Institute, USA

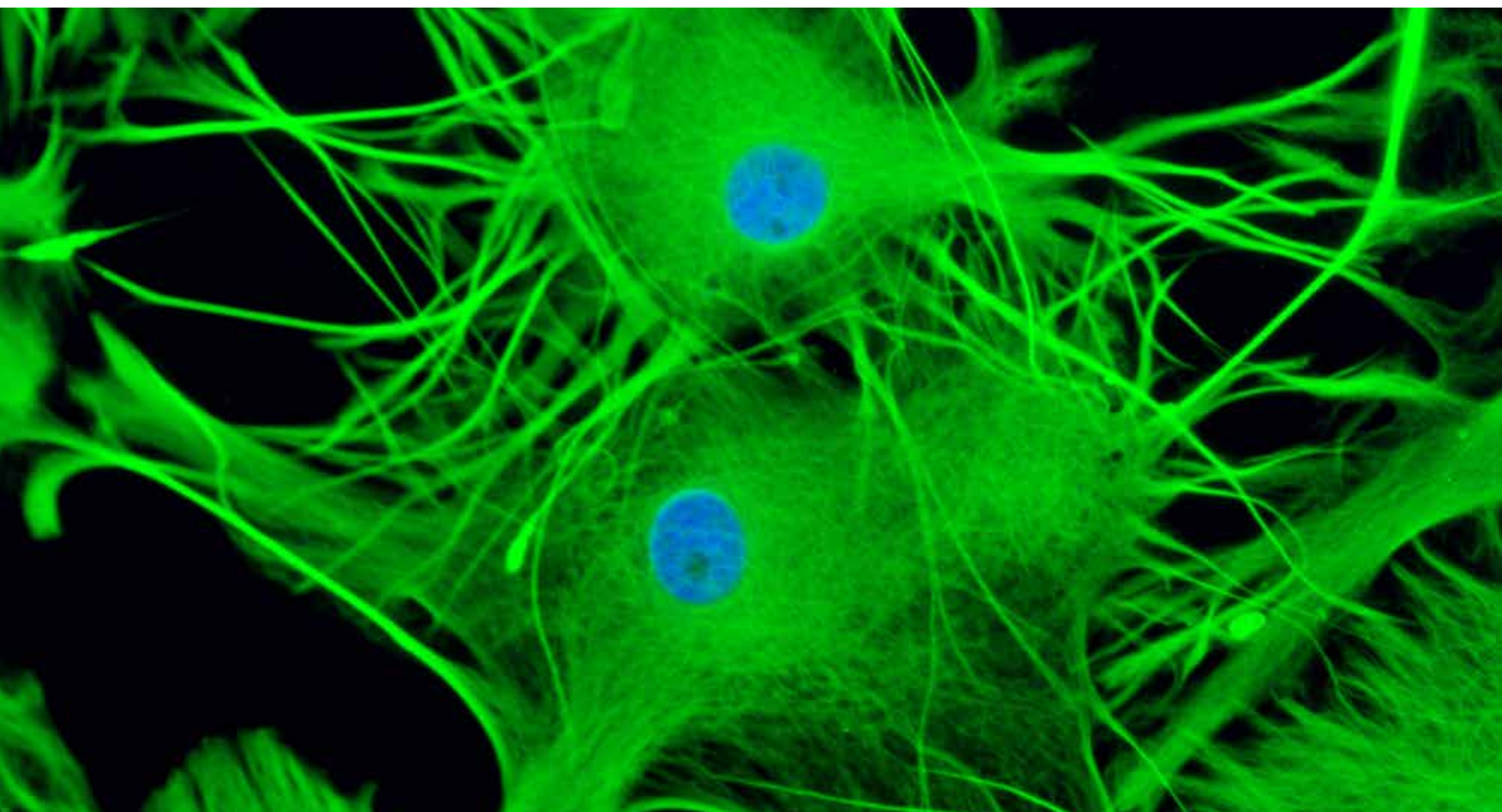
International Visitors

Name of Visitor	Affiliation
Dr Olivier Goureau	Institut de La Vision, France
Professor Greg Gibson	Georgia Institute of Technology, USA
Dr Jay Shin	Centre for Developmental Biology, RIKEN, Japan
Francesco Saverio Tedesco	University College London, UK
Professo Greg Gibson	California Institute of Technology, USA
Dr Adam Filipczyk	Oslo University Hospital, Norway
Professor Jane Calvert	School of Social and Political Science, University of Edinburgh, UK
Professor Roger Barker	Cambridge University, UK
Professor Nenad Bursac	Duke University, USA
Associate Professor Eva van Rooij	Hubrecht Institute, The Netherlands
Dr Gou-Young Koh	Korea Advanced Institute of Science and Technology, South Korea
Professor Nenad Bursac	Duke University, North Carolina, USA
Associate Professor Eva van Rooij	Hubrecht Institute, The Netherlands
Dr Gou-Young Koh	Korea Advanced Institute of Science and Technology (KAIST)
Professor Judith Campisi	Buck Institute, USA
Dr Gerald de Haan	Eriba, NLD
Dr Hartmut Geiger	Max Planck, Germany
Professor Laurent David	University of Nantes, France
Professor Duanqing Pei	Guangzhou Institutes of Biomedicine and Health, China
Assistant Professor Owen Rackham	National University of Singapore, DUKE-NUS Medical School
Dr Sebastien Dejean	Universite de Toulouse, France
Professor Malu Calle	Universite de Catalunya, Spain
Mr Stijn Hawinkel	Universite de Leuven, Belgium
Dr Siebe Spijker	Leiden University Medical Center, Leiden, The Netherlands
Professor Charles Murry	University of Washington, USA
Professor Nenad Bursac	Duke University, USA
Professor Kenneth Poss	Duke University, USA
Professor Hossein Baharvand	Royan Institute for Stem Cell Biology and Technology, Iran
Professor Nenad Bursac	Duke University, North Carolina, USA
Professor Steve Brown	Harwell Science and Innovation Campus, Oxfordshire, UK
Professor Stefanie Dimmeler	Institute of Cardiovascular Regeneration, Centre for Molecular Medicine, Goethe University of Frankfurt, Germany
Professor Shosei Yoshida	National Institute for Basic Biology, Okazaki, Japan
Professor John Huguenard	Stanford University, USA
Professor Heinz Wiendl	Professor of Neurology, University Hospital, Munster, Germany.

Outreach Events

Event	SCA Participant(s)	Location
Aged & Community Services Australia	Megan Munsie (UoM)	Sydney
Kidney Health Week	Melissa Little (MCRI)	Melbourne
Brisbane Girls Grammar Women's Forum	Dhanisha Jhaveri (QBI, UQ)	Queensland Brain Institute, Brisbane
Brisbane Girls Grammar Women's Forum	Natalie Groves (QBI, UQ)	Queensland Brain Institute, Brisbane
Cabrini Research Week	Helen Abud (Monash)	Cabrini Hospital, Malvern
CERA comm info night	Alice Pebay (UoM)	Melbourne
CERA comm info night	Damien Hernandaz (UoM)	Melbourne
CERA comm info night	Grace Lidgerwood (UoM)	Melbourne
CERA comm info night	Megan Munsie (UoM)	Melbourne
Deakin University Policy Forum	Megan Munsie (UoM)	Melbourne
Florey Brain Forum	Christine Wells (UoM)	Florey, Melbourne
GTAC Teachers Day	Megan Munsie (UoM)	Melbourne
International Women's Day	Dhanisha Jhaveri (QBI, UQ)	Queensland Brain Institute, Brisbane
ISSCR Public Forum	James Chong (UoS)	Melbourne
ISSCR Public Forum	Megan Munsie (UoM)	Melbourne
ISSCR Public Forum	Melissa Little (MCRI)	Melbourne
ISSCR Public Forum	Michael O'Connor (WSU)	Melbourne
ISSCR Public Forum	Susie Nilsson (CSIRO)	Melbourne
ISSCR Public Forum	Freya Bruveris (MCRI)	Melbourne
ISSCR Public Forum	Ana Rita Leitoginho (MCRI)	Melbourne
ISSCR Public Forum	Jen Hollands (Florey)	Melbourne
ISSCR Public Forum	Genevieve Kerr (Monash)	Melbourne
ISSCR Public Forum	Cameron McKnight (MCRI)	Melbourne
ISSCR Public Forum	Evangelyn Sim (MCRI)	Melbourne
ISSCR Public Forum	Ingrid Knarston (MCRI)	Melbourne
ISSCR Public Forum	Dad Abu-Bonsrah (MCRI)	Melbourne
ISSCR Public Forum	Santhosh Kumar (MCRI)	Melbourne
ISSCR Public Forum	Ali Motazedian (MCRI)	Melbourne
ISSCR Public Forum	Serena Gallozzi (Monash)	Melbourne
ISSCR Public Forum	Ricky Lau (Monash)	Melbourne
ISSCR Public Forum	Eva Chan (Monash)	Melbourne
ISSCR Public Forum	Wito De Schrijver (Monash)	Melbourne
ISSCR Public Forum	Joseph Chen (AMRI, Monash)	Melbourne
ISSCR Public Forum	Ethan Lui (ARMI, Monash)	Melbourne
ISSCR Public Forum	Thierry Jarde (Monash)	Melbourne
ISSCR Public Forum	Christiana Tan	Melbourne
ISSCR Public Forum	Ron Danziger	Melbourne
Methodist Ladies College NeuroDay: eXight	Megan Munsie (UoM)	Melbourne

Event	SCA Participant(s)	Location
Ockham's Razor Live at the Royal Society of Victoria	Megan Munsie (UoM)	Melbourne
Parent awareness event, Kidney Flagship	Melissa Little (MCRI)	Melbourne
Seminar at University of the Third Age	Dan Blackmore (QBI, UQ)	University of the Third Age, Brisbane, Australia
Probus community group presentations	Dan Blackmore (QBI, UQ)	Brisbane
Public Workshop – Designed to Order	Christine Wells (UoM)	University of Melbourne, Australia
Public Workshop – Designed to Order	Claire Tanner (UoM)	University of Melbourne, Australia
Public Workshop – Designed to Order	Jane Kaye (UoM)	University of Melbourne, Australia
Public Workshop – Designed to Order	Claudia Vickers (CSIRO)	University of Melbourne, Australia
Queensland Heart Foundation Gala	Nathan Palpant (UQ)	City Hall, Brisbane
Reproductive Technologies and Stem Cells Professional Learning Program	Alexandra Harvey (UoM)	GTAC, Melbourne
Richmond River High College - National Science Week	Megan Munsie (UoM)	NSW/ webinar
Shiluv College - Clash of hopes	Megan Munsie (UoM)	Melbourne
Speaker - KCNQ2 Cure New Horizons in Science Dinner	Steven Petrou (Florey)	PwC, Melbourne
SpinalCure's 3rd Symposium on Frontiers in Spinal Injury Research	Perry Bartlett (QBI, UQ)	Queensland Brain Institute, Brisbane
Suncorp Corporate Day	Dhanisha Jhaveri (QBI, UQ)	Queensland Brain Institute, Brisbane
UsherKids Conference	Megan Munsie (UoM)	Melbourne



Media Coverage

Press Releases

Title	Release Date
Australian study demonstrates newborn visual pathway vital to reaching and grasping behaviour	2/1/2018
Vital mechanism underlying the interplay between neuronal activity and myelination uncovered in new research	23/1/2018
Could replacing myelin in diseases like MS be as simple as stimulating individual axons?	23/1/2018
Memory Makers	22/2/2018
Bioengineering: the new approach for treating pelvic organ prolapse	26/2/2018
Researchers move one step closer towards functioning kidney tissue from stem cells	2/3/2018
Western Sydney lead world-first cataract research	19/3/2018
Australian breakthrough in stem cell kidney research	27/4/2018
A step closer to understanding how brain cells die in Alzheimer's disease	1/6/2018
Bold plan to end health crisis in NSW	2/6/2018
Human stem cell research shows new genetic pathway controls the heart beat	19/6/2018
'A team effort', James Bourne reflects as awardee of an NHMRC Award	3/7/2018
Accelerating stem cell discoveries into tomorrow's medicine	1/8/2018
Accelerating stem cell discoveries into tomorrow's medicine	1/8/2018
Doble discovery reveals insight behind brain degeneration	13/8/2018
Reading the story of the developing human heart	5/10/2018
International recognition for stem cell scientist	9/10/2018
Professor Trevor Kilpatrick appointed Clinical Director of the Florey Institute of Neuroscience and Mental Health	30/10/2018
UNSW Science and Engineering leaders honoured at Premier's awards	31/10/2018
Professor wins 2018 Premier's Prize for Science and Engineering	31/10/2018
Chief Scientist launches IHMRI's new electrophysiology facility	9/11/2018
Could lab-grown human minibrains help treat Alzheimer's and epilepsy?	19/11/2018
Gene editing of human embryos not performed under appropriate ethical approval	27/11/2018
Child's cells helping researchers develop customised treatments for inherited kidney disease	5/12/2018
International collaboration to advance medical technologies and treatments for patients in Australia	14/12/2018

Media Coverage

Title	Publication
A fresh opportunity to get regulation and engagement right - the case of synthetic biology	The Conversation
Alzheimer's may NOT be caused by toxic protein clumps killing brain	Science Alert and other outlets
At last! Advertising bans for stem cell clinics	Medical Republic
Australian scientists move a step closer to mending broken hearts	2CC
Baby stem cell hope for hearts	Herald Sun
'Buying hope': Unproven stem cell treatments facing tighter regulation	ABC Radio
Calling the Stem Cell Race	Cosmos
Children who are blind or suffering congenital heart conditions will benefit from a Federal Government funding boost into stem cell research.	9 News
Chinese Scientists Create Mice With Same - Sex parents	News MSN
Cloning Monkeys	ABC News
Could lab - grown human minibrains help treat Alzheimer's and epilepsy?	SMH
Could Men Become Obsolete? Mouse pups with same-sex parents created by Chinese scientists	Newsweek
Elixir for everything? Private stem cell clinics, hope, hype and horror	ABC Radio
Kidney Advance a Step Toward Personalised Medicine	Herald Sun
Kidney disease: The 'silent killer' blindsiding Australians	The News Daily
Kidney in lab a bit closer	Herald Sun
Male of species approaching use-by date	The Daily Examiner + 12 other syndicated papers across Au
Mice with two mums raise many questions	Cosmos
Mini organs from stem cells used to uncover kidney disease	Herald Sun
Monkey see, monkey 2: Scientists clone monkeys using technique that created Dolly the sheep	CNN
Monkeys have been cloned in a lab in China and humans could be next	ABC News
NSW government to give \$150 million to cardiovascular disease research	The Age
NSW government to give \$150 million to cardiovascular disease research	SMH
NSW government to give \$150 million to cardiovascular disease research	ABC Radio
Patient Leaflet Informs About Stem Cell Treatment	MiVision
Queensland research breakthrough to treat muscle disease, slow ageing	Sydney Morning Herald
Same-sex mice reproduce via gene editing	LabOnline
Stem cell advertising crack down on the horizon	The Limbic
Stem cell breakthrough as scientists develop mini kidney	Ten News
Stem cell kidney gives hope to sufferers	SBS
Stem cell kidneys	7 News
Stem Cell Research - The Facts	Audioboom
Stem cell therapies often not the wonder treatment they may seem	The Australia
Stem Cell Therapy	GP Show
Stem cells can help us 'build a human heart in a dish' — but what are they, really?	ABC Radio
The big cell: Unproven stem cell treatments facing tighter regulation	ABC 730
The hope (and hype) of stem cells	ABC Radio
The Drawing Room - Stem Cells	ABC Radio
These mice have brains that are part human. So are they mice, or men?	ABC Radio
Warning over crowdsourced stem cell schemes	Cosmos
We May Have Been Wrong About What Kills Brain Cells in Alzheimer's Disease	Science Alert
What are we doing to our dogs	Pursuit

Title	Publication
A Mother's Impossible Choice	7 News and 4 other outlets
Challenges and opportunities for women in science and tech	Women Love Tech
Discovery Sheds new light on heart chamber formation	7 News and ABC Radio
Leo Henricks who has hypoplastic left heart (HLH) and his participation in study in Harvey laboratory modelling HLH in pluripotent stem cells.	7 news and 12 other outlets
Mission Massimo	ABC 4 Corners
NAXD deficiency	Herald Sun and ABC Radio
Newborns' stem cells bring hope for hearts.	Herald Sun
Podcast- Depression and anxiety - what happens in the brain?	A Grey Matter
Queensland research breakthrough to treat muscle disease, slow ageing.	Brisbane Times
Stem cell research given \$3 million funding boost	Insight
Stem cell research given \$3 million funding boost	9 News
Stem cell science and mini-kidneys in a dish	ABC Radio
The big step	60 Minutes
The Conversation Hour: Stem cell pioneers Doug Melton, Michele De Luca, and Caroline Gargett	ABC Radio
When will Stem Cells Save lives?	2SM News

Finance

STEM CELLS AUSTRALIA FINANCIAL STATEMENT FOR CALENDAR YEAR JANUARY 2018 TO DECEMBER 2018

	<u>2018</u>	<u>Project to Date</u>
ARC Funds	3,610,708.07	25,455,327.39
Other Contributions	<u>1,230,044.00</u>	<u>12,903,203.70</u>
Total Income	4,840,752.07	38,358,531.09
Salaries and oncosts	2,290,971.29	20,769,996.67
Consumables and other costs	<u>2,372,553.17</u>	<u>15,082,757.84</u>
Total Expenses	4,663,524.46	35,852,754.51
Net Activity for the year	\$177,227.61	2,505,776.58
Carry over balance	2,328,548.97	
Balance as at Dec 2018	<u>2,505,776.58</u>	<u>2,505,776.58</u>

I certify that:

a) The figures reported above are true and correct in every particular to the best of my knowledge and having made all due enquiries.



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Eva Chan
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26-Mar-19

Date

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Stem Cell Images

Thank you to our researchers for providing the following images.

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Abbreviations

AIBN	Australian Institute for Bioengineering and Nanotechnology
ARMI	Australian Regenerative Medicine Institute
CERA	Centre for Eye Research Australia
CSCS	Centre for Stem Cell Systems
CSIRO	Commonwealth Scientific and Industrial Research Organisation
Florey	The Florey Institute of Neuroscience and Mental Health
Garvan	Garvan Medical Institute
IMB	Institute for Molecular Bioscience
MCRI	Murdoch Children's Research Institute
Monash	Monash University
QBI	Queensland Brain Institute
QIMR	QIMR Berghofer Medical Research Institute
UNSW	University of New South Wales
UoM	University of Melbourne
UoW	University of Wollongong
UoS	University of Sydney
UQ	University of Queensland
UTAS	University of Tasmania
VCCRI	Victor Chang Cardiac Research Institute
WEHI	Walter and Eliza Hall Institute of Medical Research
WSU	Western Sydney University



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