

Annual Report

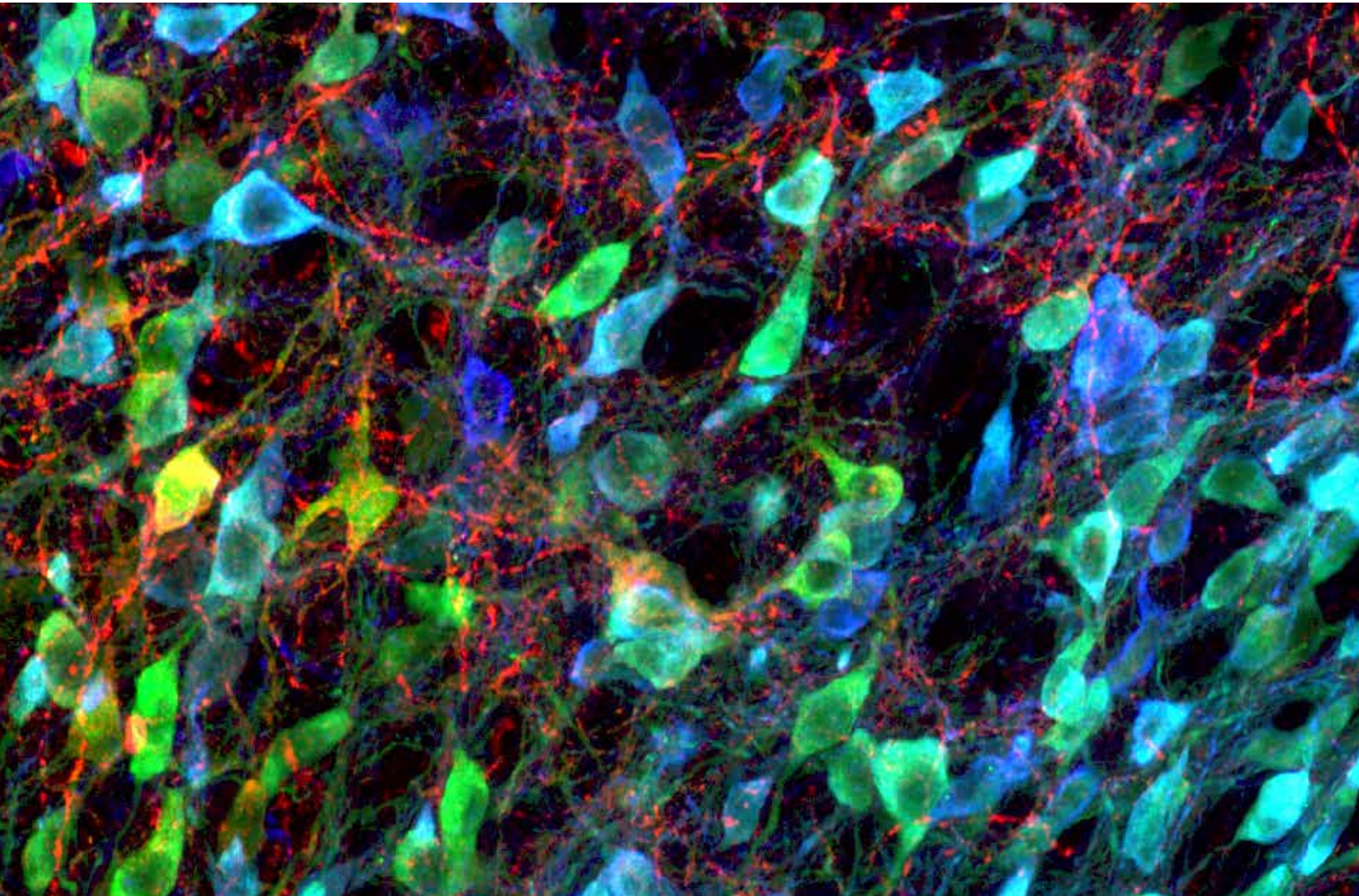
2017

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 discover how to regulate stem cells in order to harness their potential for therapeutic purposes and to generate economically valuable biotechnologies.

Message from the Chairman

2017 continued to see significant scientific advances made by our researchers. During the year we were also delighted to be awarded additional funding under the Australian Research Council Special Research Initiative scheme to reposition the research portfolio and keep Australian science at the forefront internationally.



This funding will allow our network to link researchers across more than a dozen Australian universities and medical institutes and extend our fundamental understanding of stem cell science, ultimately leading to new ways to diagnose, understand and treat disease.

During 2017 our research focused on four core areas: understanding fundamental mechanisms

that govern cellular reprogramming to reliably achieve induced pluripotent stem cells; regeneration and repair of neural and cardiac tissues, and ways to improve stem cell therapies for diseases of the blood.

The strength of this initiative is reflected in the leadership portfolio. I was delighted to welcome Professor Melissa Little in as Stem Cells Australia Program Leader. Professor Little is based at the Department of Paediatrics, University of Melbourne and the Murdoch Children's Research Institute and brings a wealth of experience to the role, with a strong vision for the future of Australian science in this important area of medical research. Professor Christine Wells has been appointed Deputy Program Leader, and brings with her the strength of computational biology and synthetic cell systems. This leadership team has been integral in securing an additional \$3 million in Federal Government funding to expand the network and target its scientific portfolio towards medical and technological advances. Significant changes are underway, including welcoming new partners to the initiative and transitioning our focal research themes into three new translational programs.

I would again like to thank Professor Martin Pera for his support and leadership as the inaugural Program Leader of the initiative and wish him the best as he pursues his new role in the USA.

This year we welcomed to the Governance Committee Professors Nick Di Girolamo and Alastair Mc Ewan as the representatives from the University of NSW and University of Queensland, respectively. I would like to take this opportunity to acknowledge and thank University of NSW's Professor Peter Gunning and University of Queensland's Mr Ian Harris and Dr Stephen Love for their contributions.

During 2017, our researchers have been recognised by prestigious awards, fellowships and invitations to present their work at numerous national and international meetings. Publications have appeared in leading peer reviewed journals. We congratulate 13 postgraduate students on completing their studies and wish them well as they embark on the next stage of their careers.

2017 saw the creation of an Early Career Researcher Network which comprises, and is led by, postdoctoral researchers within the Stem Cells Australia community. The Network aims to celebrate research being conducted by our up and coming leaders and provide career development and grassroots networking opportunities for the next generation of Australian stem cell scientists. Our Annual Retreat was an opportunity for scientists, students and distinguished guests to showcase research interests and foster collaborations.

The initiative's contributions extended beyond the laboratory and I thank our many members in engaging in public debate about the significance of their research. 2017 saw the Australian Government announce regulatory reforms to prevent the sale of unproven and potentially unsafe practices. Stem Cells Australia has long called for these changes which will ensure genuine efforts to translate promising stem cell research into clinical benefit are not stymied.

It remains a privilege to be associated with this ground-breaking field of medical research. I commend the leadership of such an influential initiative and congratulate all members of SCA.

Professor David de Kretser
Chairman, Governance Committee

Message from the Program Leader

It is with great pride that I present to you the 2017 Annual Report for Stem Cells Australia. In this, the penultimate year of our activities, our researchers continued to shine on the national and international stage.



Our researchers have been the recipients of many prestigious awards and I offer my congratulations to them all. I commend Professor David Gardner, who received the 2017 Distinguished Researcher Award from the American Society for Reproductive Medicine, Professor Perry Bartlett on his 2017 Queensland Senior Australian of the Year award and Professor

Richard Harvey on his membership into the General Division of the Order of Australia.

The Stem Cells Australia 2017 Scientific Meeting was attended by members of our international scientific advisory committee, and key speakers representing the commercial and manufacturing sectors to give an external perspective on the challenges ahead. Stem Cells Australia led the national discussion around ethical stem cell practices and was heavily engaged with the community through public events and workshops in which scientists, teachers, students and members of the public could meet to discuss the hope versus the hype of stem cell therapies. 2017 also saw the leaders of our Cardiac and Neural programs host major national and international meetings respectively focused on stem cell applications in heart and brain.

This past year has been a year of looking to the future. Since taking on the role of Program Leader in January, I have had the opportunity to work with the entire network, and indeed with an extended network of stem cell researchers across the nation, to define how stem cell science will progress to stem cell medicine. This has allowed the development of a new Vision for Stem Cells Australia: Stem cells central to diagnosis, therapy and designer biological products.

An Expression of Interest describing how Stem Cells Australia proposed to reach these goals was successfully funded by the Australian Research Council, assuring both a one-year extension of our research funding and an opportunity to reshape the network to deliver new outcomes. As a result, we will now encompass research across nine universities and five medical research institutes, facilitating research, ethics and engagement, clinical and commercial translation and capacity and infrastructure building. We have also defined three programs of research that underpin translational outcomes from stem cell research: Regenerative Medicine, Disease Modelling and Designer Cells.

As we redesign our portfolio to encompass research in these areas, we are also linking with other national initiatives critical in the success of each program. I look forward to being able to report on our progress in the 2018 Annual Report.

This has been a year of great change within Stem Cells Australia, not least of all with major changes in staff. Along with the departure of Professor Martin Pera as Program Leader, we also farewelled former team members Barbara Power and Jennifer Kendall. We welcomed Dr Phil Marley, who joined the team in the role of Strategy Advisor to assist in the development of strategic proposals for future government support of stem cell medicine. We also welcomed Helen Braybrook who has taken on the task of communications with fabulous energy. As a result, we are growing the skills and resources to liaise with each other, highlight our successes and communicate our science.

Finally, I would particularly like to thank Professor Christine Wells from the Centre for Stem Cell Systems, University of Melbourne, for her leadership and steadfast support as Deputy Program Leader and the endless commitment of Associate Professor Megan Munsie in driving our activities in the ethics, engagement and policy arena. I am confident that Stem Cells Australia will be part of the international future of stem cell medicine.

Professor Melissa Little
Program Leader

Positioning Australian Stem Cell Research for the Future

Stem Cells Australia will receive additional funding from the Australian Government through the Australian Research Council Special Research Initiative scheme to reposition the research portfolio and keep Australian science at the forefront internationally.

This support will allow collaborative stem cell research across more than a dozen Australian universities and medical institutes to extend our fundamental understanding of stem cell science, ultimately leading to new ways to diagnose, understand and treat disease.

The additional \$3 million in funding, announced in November 2017, will allow Stem Cells Australia to draw on the strengths of the maturing initiative and to expand our network to foster the development of an Australian stem cell biotech industry for the rapid advancement of stem cell medicine.

In parallel, the network will also continue to track and discuss the social and regulatory implications of our research. This additional support will extend Stem Cells Australia activities until June 2019.

The future of stem cell medicine will be anchored in three pillars of research and translational growth: Regenerative Medicine, Disease Modelling and Designer Cells. Each program builds on key research outcomes generated during the initial seven years of Stem Cells Australia funding, and is underpinned by the Ethics, Engagement and Policy Unit.

THEME 1: Regenerative Medicine

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

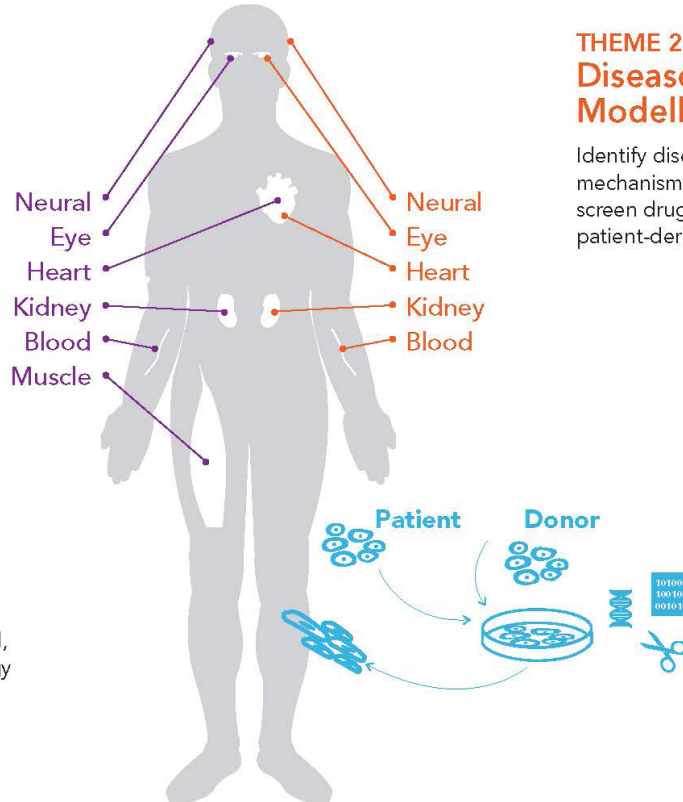
Neural
Eye
Heart
Kidney
Blood
Muscle

THEME 2: Disease Modelling

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

THEME 3: Designer Cells

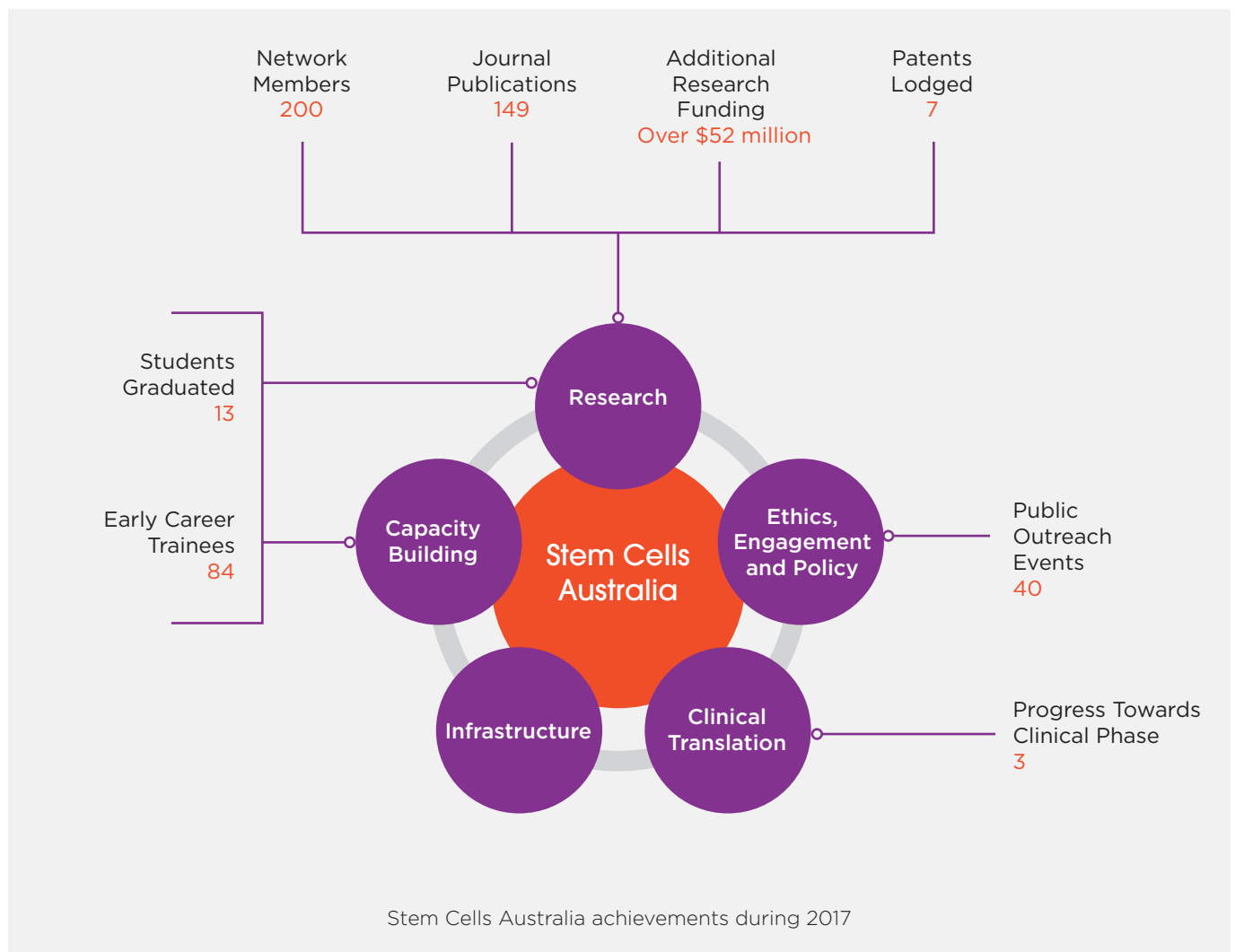
Design cells to act as living instruments for environmental, therapeutic and biotechnology applications.



WE ENVISION A FUTURE IN WHICH AUSTRALIANS HAVE ACCESS TO NOVEL STEM CELL MEDICINE – FOR IMPROVED HEALTH AND PROSPERITY FOR ALL.

Stem Cells Australia Highlights

Throughout 2017, Stem Cells Australia's researchers and students have continued to deliver high quality research outputs, expanded on our network of interdisciplinary researchers and collaborators, secured substantial external funding and continuously engaged with the community. As our research and technology advances, our Investigators have lodged seven new patents, with three groups during 2017 announcing their plans to progress their research toward clinical trials.



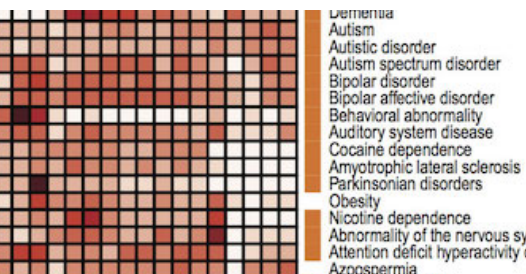
Research Performance

Stem Cells Australia researchers and students contributed to significant discoveries, continuing to strengthen Australia's reputation as a leader in stem cell science. In 2017, 149 articles were published, including 26 in prestigious journals such as *Cell Stem Cell*, *Nature*, *Nature Biotechnology*, *Nature Communications*, *Science* and *Science Translational Medicine*. Our researchers also authored two books and six book chapters.



Uncovering the secrets of cellular reprogramming

In a series of breakthrough studies published in several journals, including *Nature Methods* and *Cell Stem Cell*, Prof Jose Polo and his team from ARMI have shed light on vital aspects of [cellular reprogramming](#) and [native stem cell states](#). Collaborating with Prof Ryan Lister at The University of Western Australia, the team also described key drivers of the process by which cells from mature tissues of the body, such as skin, can be deliberately converted into stem cells that can subsequently form almost any cell type.



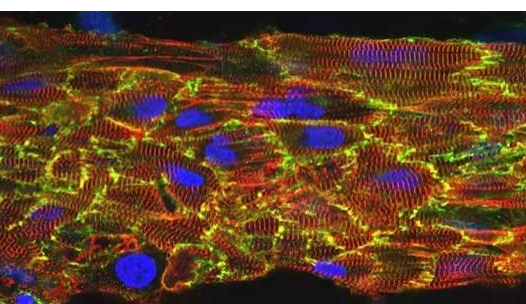
FANTOM5 consortium reveal function of “junk” RNA

Profs Christine Wells (UoM) and Alistair Forrest (UWA) in collaboration with researchers from Japan, have completed [landmark studies](#) in non-coding RNA. These studies, published in *Nature*, reveal how non-coding RNA regulates the flow of genetic information in different tissues; disruption of this flow may lead to many different disease types, including cancer. The team also [mapped](#) the thousands of non-coding RNA in hundreds of human cell types. This information was developed into a free online map that allows anyone to explore the patterns of microRNAs across tissues of the body.



New adult stem cells found in emotion processing region of brain

Dr Dhanisha Jhaveri, working with Prof Perry Bartlett, from the University of Queensland discovered a [new population of adult brain stem cells](#) in the amygdala, the region of the brain involved in fear learning and processing emotions. These findings have important implications for age- and mood-related disorders. Prof Perry Bartlett's team have also shown that the brain's immune cells respond to exercise by producing new neural cells.



Human heart cells grown in lab

Dr Enzo Porrello from the Murdoch Children's Research Institute and Dr James Hudson from the University of Queensland have [grown beating human heart cells](#) in a dish to better study cardiac biology and diseases in the lab. The patented technology enables scientists to perform experiments on human heart tissue, to model diseases, screen drugs and investigate heart repair and regeneration. This led to Hudson's and Porrello's discovery of a [switch in a newborn's metabolism](#) that turns off the ability to regenerate heart tissue. The team is now working with a company to identify drugs that could re-activate the heart's ability to self-repair.



Action against marketing of unproven stem cell treatments

Prof Megan Munsie from the University of Melbourne joined colleagues from across the globe to call for [harmonisation of global regulations](#) to tackle the rise of unproven stem cell treatments. Many people affected by conditions understandably want access to experimental new treatments, especially given the great amount of expectation surrounding the therapeutic potential of stem cells. In their *Science Translational Medicine* paper, the authors call for stronger global and national regulatory guidelines, along with public outreach initiatives from researchers, to help tackle this problem before it undermines the legitimacy of the stem cell research arena.

Postgraduate Completions

We would like to congratulate the following postgraduate students who completed their studies in 2017.



Dhanushi Abeygunawardena (PhD, UNSW/VCCRI) supervised by Richard Harvey. Thesis: *Understanding cell fate and function decisions of cardiac mesenchymal stem cells.*



Alexei Ilinskykh (PhD, Monash) supervised by Nadia Rosenthal (Monash, JAX). Thesis: *Role of biological sex in cardiac cellular composition and cellular communication.*



Walaa Alsanie (PhD, UoM/The Florey) supervised by Clare Parish (The Florey). Thesis: *Understanding neural development and the establishment of region-specific protocols for the differentiation of naive pluripotent stem cells.*



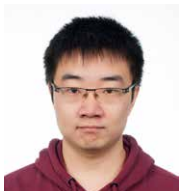
Jarmon Lees (PhD, UoM) supervised by Alexandra Harvey and David Gardner (UoM). Thesis: *Role of metabolites in regulating human embryonic stem cell metabolism and pluripotency.*



Anushree Balachandran (PhD, UQ) supervised by Ernst Wolvetang (UQ). Thesis: *New insights into neural crest cells derived from human pluripotent cells through multi-omics approaches.*



Grace Lidgerwood (PhD, UoM/CERA) supervised by Alice Pebay (UoM, CERA). Thesis: *Signalling molecules involved in the maintenance and differentiation of human pluripotent stem cells and retinal pigment epithelial cells.*



Yuyang Cong (MSc, UoM/WEHI) supervised by Samir Taoudi and Doug Hilton (WEHI). Thesis: *Establishing an in vitro screening platform for haematopoietic progenitor cell development.*



Elizabeth Mason (PhD, UQ) supervised by Christine Wells (UoM, UQ), Martin Pera (JAX), Ernst Wolvetang (UQ) et al. Thesis: *Variability is a hallmark of human pluripotent stem cells and embryonic development.*



Freya Bruveris (PhD, Monash/MCRI) supervised by Andrew Elefanty and Ed Stanley (MCRI). Thesis: *The roles of SOX17 and RUNX1 in the generation of haematopoietic lineages from human pluripotent stem cells.*



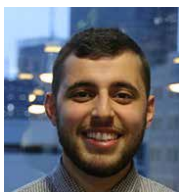
Ali Motazedian (PhD, UoM/MCRI) supervised by Ed Stanley and Andrew Elefanty (MCRI). Thesis: *Lymphocyte differentiation from pluripotent stem cells.*



Ryan Debuque (PhD, Monash) supervised by Nadia Rosenthal (Monash, JAX) et al. Thesis: *Myeloid cells in the regenerating salamander limb.*



Elizabeth Qian (PhD, UoM/MCRI) supervised by David Elliott (MCRI). Thesis: *Pluripotent stem cell model of Pulmonary arterial hypertension.*



Saed Fahd (Hons, UoM) supervised by Megan Munsie, Claire Tanner et al. Thesis: *Views and practices of Australian GPs in the management of people's pursuit of unproven stem cell treatments.*

Patents

- Kumar S & Little M: "Composition and Method – Kidney microorganoids", Australian Provisional Patent Application No. AU2017904424.
- Little M et al.: "Three-Dimensional, Engineered, Bio-Printed Renal Organoid Models and Arrays, and Corresponding Methods of Making and Methods of Using the Models and Arrays ", U.S. Provisional Patent Application No. 62/580,896; Filing Date: November 2, 2017
- Mills RM, Titmarsh DM, Porrello ER & Hudson JE: "Screening device, conditions for tissue fabrication, and medium for induction of human cardiac organoid maturation, International PCT patent PAT-02238-WO.*
- Palpant N: "Polarization of hPSCs mesoderm to generate high-purity cardiomyocytes, endocardial-like endothelium, and homogenic endothelium from a common monolayer directed differentiation platform", US Patent Office, 20170240861A1.
- Pébay A, Crombie D, Hewitt A, Liang H, Wong R & Daniszewski M: "Automated system for maintenance and differentiation of pluripotent stem cells", Australia and Germany application number: 2017100376.
- Polo J, & Gough J: "Experimental validation of Mogrify cell conversions", Australian provisional application AU 2015905349.
- Porter D, Halilovic E, Chanrion M, Maragnao AL, Geneste O, Merino D, Whittle J, Vaillant F, Visvader J, Lindeman G & Lessene G: "Combination of a MCL-1 inhibitor and taxane compound, uses and pharmaceutical compositions thereof". Status: Awarded (PCT). Application No 17157779.4.
- Quaife-Ryan GA, Mills RJ, Hudson JE & Porrello ER: "A novel therapy for cardiac regeneration through activation of b-catenin", Provisional filing AU2017902668.*
- Vanslambrouck J, Woodard L, Wilson M, Little M: "Genetically induced nephron progenitors", US Provisional Patent Application No. 62/510,314.

*update of patents lodged in 2016.

Research Training and Capacity Building

Stem Cells Australia is committed to developing and supporting the growth and training of Australian stem cell researchers. In 2017, 25 new post-doctoral researchers joined the initiative. We also welcomed 25 new postgraduate students and celebrated 13 students completing their postgraduate studies.

Educating and Training Young Scientists

In 2017 Stem Cells Australia established the [Early Career Researchers \(ECR\) Network](#). Led by a representative Committee including Dr Aude Dorison (chair), Dr Tobias Merson, Lauren Craig, Dr Dhanisha Jhaveri, A/ Prof Megan Munsie and Prof Christine Wells, the Network aims to improve the visibility of research being conducted by ECRs and provide them with career development and grassroots networking opportunities. The Early Career Research Committee ran a closed session for the ECRs at the Annual Retreat. Speakers included Dr Fiona Cameron (ARC) on "Being at the beginning of your career: Funding Landscape, DECRA, ARC processes, being an assessor" and from Dr Mel Thompson (MTPConnect) "From academia to industry, public engagement & science advocacy". Prof Al Forrest (UWA) and Dr Dhanisha Jhaveri (UQ) shared their experience as researchers whilst the panel session allowed plenty of discussion among the ECRs and their senior peers.



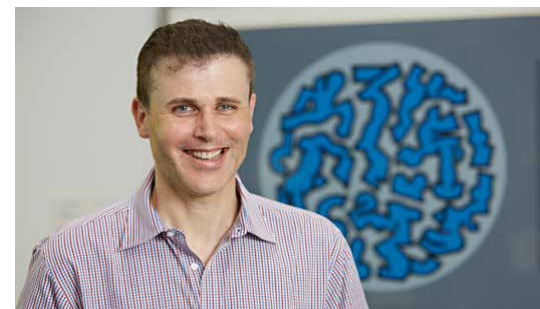
3D printer for making mini-kidneys

The Murdoch Children's Research Institute (MCRI) has received an [addition](#) to its stable of revolutionary equipment, the NovoGen Bioprinter™ MMX-07 provided by Organovo™ Inc ("Organovo"). This 3D bioprinter is the first that Organovo has placed in the Southern hemisphere and will support kidney tissue engineering and disease modelling research of Prof Melissa Little and her colleagues within MCRI's world-class Stem Cell Medicine research program. The modelling of human tissues is set to change health by providing a personalised approach to drug screening and regenerative medicine.



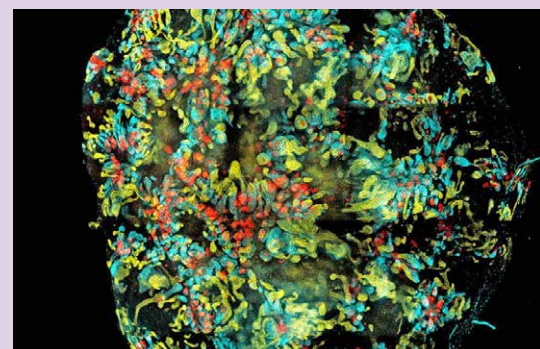
Finding back gate to schizophrenia

A/ Prof James Bourne from the ARMI at Monash University has been awarded a two year [NARSAD Independent Investigator Grant](#). James will study the key region in the brain that controls cognitive function, the dorsolateral prefrontal cortex (DLPFC), and its connection with the nearby medial pulvinar when affected by schizophrenia. He believes that the medial pulvinar 'gates' the transfer of cognitive functions in and out of the DLPFC and any changes in this gating process could highlight the reasons why schizophrenia develops in the first place. He ultimately aims to create an earlier diagnosis and intervention strategy.



Awarding Excellence at SCA 2017 Retreat

Stem Cell Australia provided five awards to postdoctoral and postgraduate students delivering the best oral and poster presentations, as well as best paper published. The 2017 winners were: [Dr Ben Cao](#) (CSIRO) who aims to develop a more effective leukaemia treatment; [Dr Lorna Hale](#) (MCRI) who uses kidney organoids to develop future treatments for kidney disease; [Ms Holly Voges](#) (UQ) whose PhD studies focus on developing a laboratory model of acute heart injury; [Ms Nona Farbehi](#) (UNSW) who wants to map the genes involved in repair in mouse hearts during her PhD, and [Ms Cristiana Mattei](#) (UOM) a PhD student growing inner ear organoids.





Awards and Fellowships

David Gardner receives Distinguished Researcher award

Prof Gardner received the 2017 Distinguished Researcher Award from the American Society for Reproductive Medicine. David has made significant contributions to the field of reproductive medicine, including leading the development and clinical introduction of blastocyst culture, transforming how most human in vitro fertilisation cases are performed. Prof Gardner was also elected a Fellow of the Australian Academy of Science.



Ben Cao receives prestigious Gilead Award

Dr Ben Cao, in the CSIRO Niche Biology Team in Biomedical Manufacturing, was awarded the Gilead Sciences International Research Scholars Program in Hematology and Oncology. This program provides financial support to junior researchers to allow the progression of research. For Ben and the niche research team, headed by Prof Susie Nilsson, the award will support a project aimed at inducing drug-resistant leukaemic cells to become sensitised to chemotherapy.



Melissa Little's leadership and expertise acknowledged

During 2017 Prof Little was elected a Fellow of the Australian Academy of Science, joined the Board of the International Society for Stem Cell Research (ISSCR), and continued to drive the scientific program for the ISSCR 2018 annual meeting which will be held in Melbourne and will bring together over 3000 leading stem cell scientists to discuss the latest progress in this area.



James Hudson receives the Centenary Institute Medical Innovation Award

The 2017 Centenary Institute Medical Innovation Award 'In Memory of Neil Lawrence' was awarded to Dr James Hudson from the University of Queensland for his work in creating human heart tissue from stem cells for use in drug screening. The Award recognises bold young researchers who are taking the risks to ask the big questions of today - those questions that have most people saying "but that's impossible".



Clare Parish wins prestigious Bülbring Award

A/ Prof Clare Parish from the Florey Institute of Neuroscience and Mental Health was awarded the 2017 British Pharmacological Society Bülbring Award. The award was established to fund a short-term independent research project with the aim of obtaining pilot data. Clare has used the £10,000 award to support a new project investigating the benefits of the GDNF protein, a glial derived neurotrophic factor. Clare is examining whether the GDNF protein can regulate the survival and plasticity of human pluripotent stem cell derived dopamine progenitor transplants in Parkinson's disease.



Fellowships

- Mr Joseph Chen (Monash, ARMI) ARMI and Cell Mogrify Industrial Partnership Fellowship
- Prof Andrew Elefanty (MCRI) NHMRC Research Fellowship
- Dr Pingping Han (AIBN, UQ) UQ Development Fellowship
- Prof Richard Harvey (VCCRI) NHMRC Research Fellowship
- Dr James Hudson (UQ) NHMRC Career Development Fellowships (RD Wright Biomedical CDF) and National Heart Foundation Future Leaders Fellowship
- Dr Yasuyuki Osanai (ARMI, Monash) Naito Foundation (Japan) Study Abroad Fellowship

Extending the Network

In 2017 our network secured over 50 new grants, totalling over \$52 million 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 120 international conferences, and over 90 national conferences.

Australia joins world-first Human Cell Atlas effort

Scientists from 14 of Australia's biomedical centres have [joined the Human Cell Atlas](#), an ambitious global initiative to create an 'instruction manual for life itself.' The Atlas will map every single cell in the human body for a freely accessible database that could have a significant impact on how diseases are understood, diagnosed, monitored and treated. Helping to lead Australia's involvement are Dr Shalin Naik (WEHI) and Dr Joseph Powell (UQ).



Transitioning to the Future - 2017 Retreat

Over 125 stem cell enthusiasts including researchers, students, members of the Scientific Advisory Committee and invited speakers gathered together in the Gold Coast for the 2017 Stem Cells Australia annual retreat "Transitioning to the Future". Among the distinguished invited speakers were Dr Tim Oldham from Cell Therapies, Dr Sue MacLeman from MTPConnect and Prof Stephanie Watson from the University of Sydney. Each day in the three-day program concluded with a panel discussion to encourage reflection on key developments and their significance.



Fostering international collaboration

Our researchers were integral in organising key meetings with international and national researchers. A/ Prof Clare Parish and Dr Lachlan Thompson were the critical in organising the [2017 International Symposium on Neural Transplantation and Repair](#), bringing together neural scientists and clinicians. Dr Palpant and colleagues hosted a joint meeting between Stem Cells Australia and the [Australian Network of Cardiac and Vascular Developmental Biologists](#), bringing together more than 80 delegates from around Australia interested in cardiovascular development, disease and regeneration, and included notable international speakers Dr James Martin (Baylor University, USA) and Prof Elisabetta Dejana (IFOM, Italy). Stem Cells Australia provided support for researchers to attend these vital networking opportunities.



Contributions to International Meetings

Meeting	Researchers	Role
International Conference on BioNano Innovation, Brisbane	Profs Justin Cooper-White, Lars Nielsen & Ernst Wolvetang and Dr Stefani Ilaria	Organising Committee
2017 ISN-ESN Meeting, Paris	Prof Trevor Kilpatrick	Session Chair: Role of Mertk in demyelinating disease
2017 International Society for Stem Cell Research Conference	A/ Prof Megan Munsie	Session Co-convenor and Chair: Ethics of Organoids
Joint scientific meeting of the Australian Society for Stem Cell Research and the Australasian Gene and Cell Therapy Society, Sydney	Prof Melissa Little	Chair
	Prof Ed Stanley	Organising Committee
	A/ Prof Megan Munsie	Session Co-convenor and Chair: Ethics Session
14th International Meeting for Neural Transplantation & Repair, Port Douglas	A/ Prof Clare Parish & Dr Lachlan Thompson	Organising Committee

Knowledge Transfer

Throughout 2017 Stem Cells Australia has partnered with key organisations, patient advocacy groups, teacher associations, academics, industry and professional bodies to deliver a suite of educational activities. Stem Cells Australia has also continued to raise awareness about the policy implications of stem cell research.



Australian researchers in the news

Throughout 2017, researchers from Stem Cells Australia have engaged with the broader community through a number of media outlets. Dr Shalin Naik co-hosted a new [ABC health and medical science education series](#), Ask the Doctor. A/ Prof Munsie was interviewed on ABC Radio National about the hype and hope of stem cell treatments in Australia and Prof Bartlett discussed on ABC Radio how exercise may affect cognitive function in older adults. Articles featuring our researchers also appeared in Courier Mail, Sydney Morning Herald, The Australian and the Herald Sun.



Meet the Kidney Scientists

Meet the Scientists, the first KidGen patient engagement event, was held in late September 2017. The free event was a huge success with more than 50 people hearing four researchers discuss their work and their future priorities. Despite the difficult and technical nature of their work, the speakers made the subject comprehensible to a lay audience and were available to answer questions for two hours after the event.



Community Information Forum: stem cells and the eye

The Centre for Eye Research Australia (CERA) held their [2017 Stem Cells Community Information Forum](#) at Royal Australasian College of Surgeons in Melbourne. The event was hosted by A/ Prof Alice Pébay who leads the Neuroregeneration Research Unit at CERA. Guest speakers included Lisa Kearns, a clinical orthoptist and post-doctoral researchers Drs Duncan Crombie and Matthew Rutar, who spoke of their current research. A/ Prof Megan Munsie thereafter gave a presentation about the ethics of stem cell treatment. The Information Forum was incredibly well received.



Teaching the Teachers

Stem Cells Australia and Gene Technology Access Centre hosted a [Teacher professional learning day](#) to assist in teaching reproductive technologies, including stem cell science, and the surrounding ethical and legal considerations to high school students. The day was a success and informative, eye opening and engaging. Providing the technical knowhow and inspiration were Stem Cells Australia's Prof David Gardner, Dr Alexandra Harvey, A/ Prof Megan Munsie and PhD student Rita Leitoguinho.



Taking our science out of the lab and into the community

Stem Cells Australia's members actively engaged with many representatives from government, industry and the business community to contextualise research outcomes and contribute to policy development. Of note Stem Cells Australia welcomed the announcement that the Australian Government will [tighten the regulation of unproven stem cell treatments](#) in Australia, increasing safeguards for patients and bringing Australia into alignment with international standards. The decision follows an extensive public consultation process, with contribution from many of our members. Stem Cells Australia also worked with various patient advocates and community charities to develop tailored educational resources.

Research Program

Key biological questions for each theme

Pluripotency and Reprogramming

1. Understand how to assess and ensure the quality of cellular reprogramming; the process of converting adult cells back to the embryonic state.
2. Discover novel networks controlling pluripotency and self-renewal.
3. Generate functional specialised cells from pluripotent stem cells (cardiac, neural and blood lineages).

Neural Regeneration and Repair

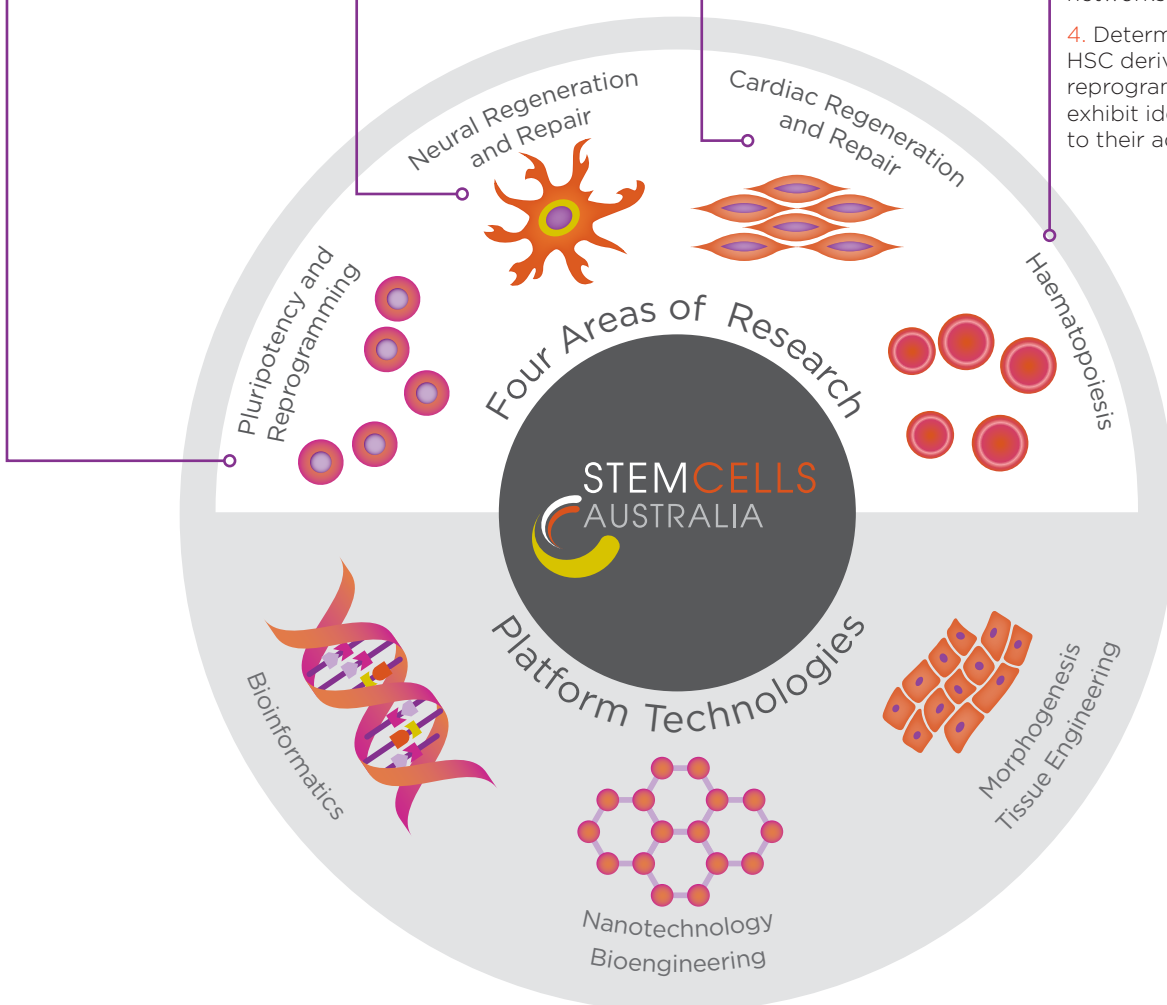
1. Determine the factors regulating endogenous neural precursor maintenance and differentiation in health and disease.
2. Define how to produce specific neural phenotypes from in-vitro-generated stem cells.
3. Understand the function of neural precursor progeny in the central nervous system (CNS).

Cardiac Regeneration and Repair

1. Investigate how capacity for regeneration is maintained in the heart, and how can it be rejuvenated in aging and disease.
2. Define the molecular underpinnings of cardiac repair.
3. Determine whether molecular switches underlie cell cycle re-entry of adult cardiomyocyte (CM) in mammals vs more regenerative vertebrates.

Haematopoiesis

1. Understand the molecular mechanisms controlling specification of haematopoietic stem cells (HSC) during development.
2. Determine the molecular interventions required to generate a new source of HSC from either pluripotent cells or mature blood cells.
3. Investigate whether mathematical models adequately define cell differentiation and transcriptional regulatory networks.
4. Determine whether HSC derived by cell reprogramming strategies exhibit identical functionality to their adult counterparts.



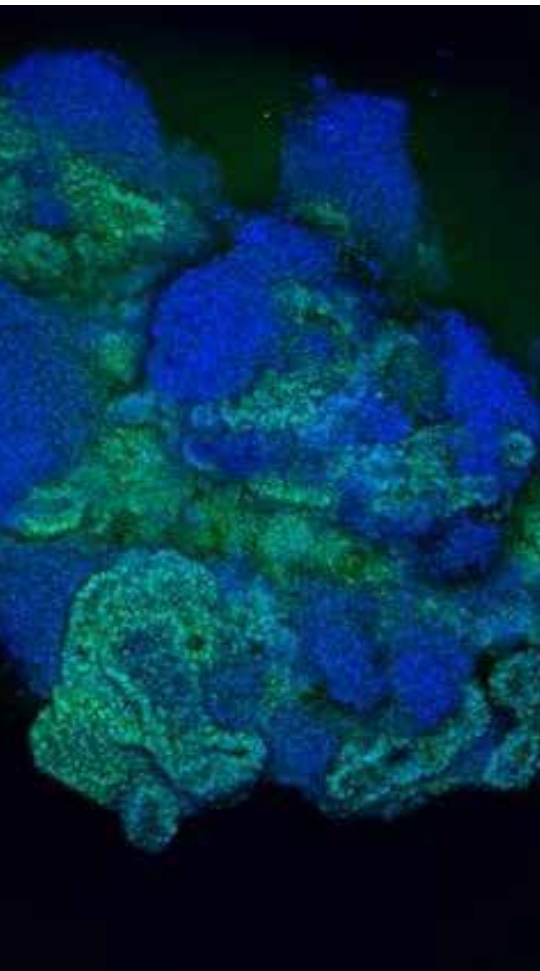
Theme: Pluripotency and Reprogramming

Professor Peter Gray and Professor Jose Polo

Revolutionised Prospects for Regenerative Medicine and Cell Replacement in the Body

Overview

Pluripotent stem cells have the potential to give rise to any cell of the body and as such they have transformed our capacity to probe human development and the origins of disease. This program seeks to understand and control cellular reprogramming – the process of converting adult cells back into pluripotent cells – and how to generate functional, specialised cells from pluripotent stem cells.



Achievements

The Pluripotency and Reprogramming theme has been tackling outstanding questions facing the field in order to move forward this technology. Different teams have been working towards the industrialisation of this technology. The team led by Prof Peter Gray has made major advances combining nano-engineering with tissue culture techniques to develop new scale-up platforms for growing and differentiating pluripotent cells. Meanwhile the team led by Prof David Gardner have mapped the nutritional and metabolic requirements of pluripotent cells.

Our theme also works towards providing and enhancing methods for producing adult cells for which there is a clinical need, as well as cells that can be used to understand the origin of disease or to develop cellular screens for the evaluation of therapeutic drugs. The group of Prof Ernst Wolvetang has developed several “disease in a dish models”, ranging from Thalassemia and cardiac injury to Down Syndrome. The team led by Prof Justin Cooper-White has combined nano-bioreactors with microfluidics to generate a platform which allows the parallel testing of hundreds of conditions to develop optimal processes. This technology has unveiled the importance of cell to cell signals (paracrine) during these processes critical in reprogramming – the process of generating induced pluripotent stem (iPS) cells – as well as the differentiation – where pluripotent cells develop into specific adult cells. All these different models are helping us understand what occurs to cells during disease and importantly aiding the discovery of new treatment options.

Finally, our theme has contributed to the understanding of the pluripotency state, in other words, what make a cell pluripotent. The team led by Dr Robin Hobbs has utilised an experimental “trick” in which spermatogonia cells spontaneously reprogram into a pluripotent state, allowing this team to reveal unexpected key aspects of pluripotency. The group led by Prof Jose Polo has looked deeply into the process of cellular reprogramming, shedding light onto the molecular mechanism as well as how the genes that control this process are orchestrated during the acquisition of pluripotency.

Highlights

- Several members from the theme presented their findings at national and international meetings. We are very proud of our students Juan Li who presented her work at the International Meeting ICBNI 2017 and Xiandong Liu who presented his work at the ISSCR China 2017 meeting.
- Key peer-viewed publications include *eLIFE* (Bellmaine *et al.*), *Stem Cell Reports* (Chan *et al.*), *Cell Stem Cell* (Knaupp *et al.*) and *Nature Methods* (Liu *et al.*).

Theme: Neural Regeneration and Repair

Professor Perry Bartlett and Professor Trevor Kilpatrick

Brain Cell Regeneration and Repair

Overview

Production of new neurons and oligodendrocytes in both the immature and mature nervous system plays a major role in how the mammalian nervous system learns, adapts to a changing environment, and responds to damage or disease. This theme seeks to understand the mechanisms that regulate stem cell function and control differentiation, providing the basis for developing new therapeutic approaches to address neurological disorders.

Achievements

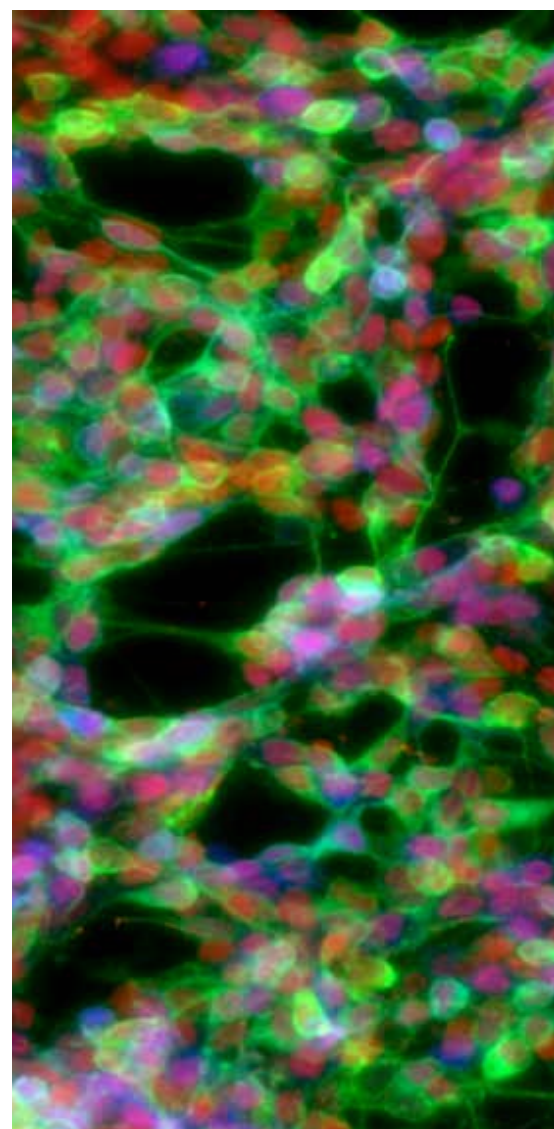
The laboratories of Prof Perry Bartlett and Dr Dhanisha Jhaveri continue to investigate neural precursor turnover in the adult hippocampus recognising its role in influencing learning, memory and mood. They have confirmed the presence of two subpopulations of precursors and identified several key molecules that specifically regulate their activation. The group has also shown that hippocampal neurogenesis can be stimulated by exercise to reverse learning deficits in aged animals and unequivocally demonstrated the presence of neuronal precursors in the area of the brain involved in mood regulation, the amygdala.

Prof Brendon Wainwright's laboratory has provided key insights into the interactions that exist between hedgehog signalling and members of the Sox family of transcription factors to influence stem cell proliferation, specifically within the cerebellum. These findings also inform how dysregulated stem cell behaviour contributes to tumorigenesis, in particular in paediatric medulloblastomas.

A/ Prof James Bourne and his group continues to focus on primate models and has established the importance of key molecules expressed on support cells known as astrocytes as modulators of neural repair. Different cell surface molecules on these cells can either impair harmful scar activity or inhibit the infiltration of inflammatory cells.

Prof Trevor Kilpatrick's laboratory is exploring ways to harness the activity of inflammatory cells, known as microglia, that are normally resident within the brain for therapeutic benefit. Neonatal microglia have been isolated and injected into the adult central nervous system to determine whether they can transform the microenvironment to one that is conducive to endogenous repair. Ultimately human induced pluripotent stem cells will be used to derive microglia-like cells for therapeutic testing.

The laboratories of A/ Prof Clare Parish and Dr Lachlan Thompson continue to develop and refine their capacity to generate specific subsets of neurons from stem cells *in vitro* and to transplant these cells to understand their function and potential, for example, to treat Parkinson's disease. Neural cell lines have also been generated that carry suicide genes to enable unequivocal establishment of the efficacy of the transplanted cells in experimental models and to establish a 'fail safe' approach by which transplanted cells could be killed if their behaviour become dysregulated in clinical trials.



Highlights

- Prof Bartlett was named 2017 Queensland Senior Australian of the Year and honoured with the Queensland Greats Award.
- Members contributed to key review that will be published in *Nature Reviews Neurology* outlining how regenerative therapies could be applied to multiple sclerosis (Stangel et al.) and a paper that will be published in *Molecular Psychiatry* which identifies neurogenic precursor cells in the adult amygdala indicating that this structure is potentially subject to environmental influence (Jhaveri et al.).

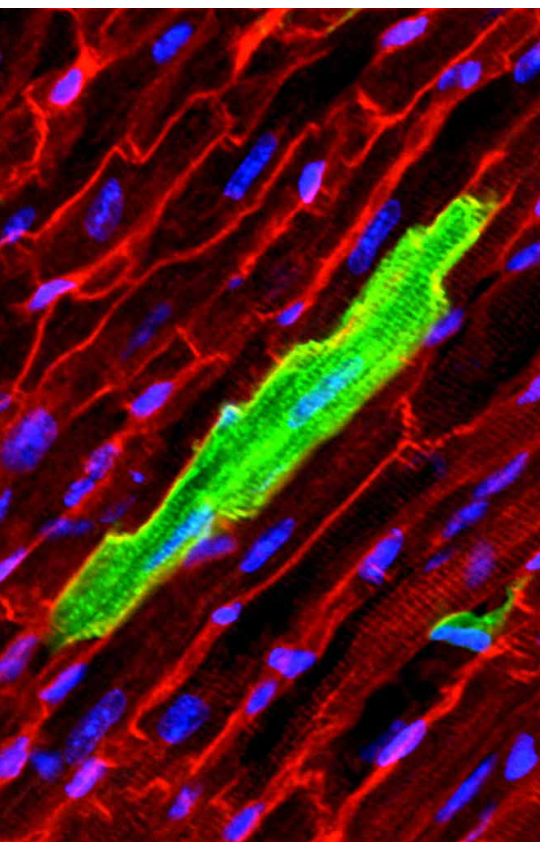
Theme: Cardiac Regeneration and Repair

Professor Richard Harvey and Dr Nathan Palpant

Regeneration and Repair of Diseased and Injured Heart Tissue

Overview

The Cardiac Regeneration and Repair theme studies the stem and progenitor cell populations in the developing and adult heart and the potential for adult cardiomyocyte renewal. Primary objectives are to understand the mechanisms controlling cardiac homeostasis and repair, the origins and hierarchies of the heart lineages, and how these can be augmented for heart repair and regeneration.



Achievements

Prof Richard Harvey's laboratory studies the stromal cells of the heart to understand their self-renewal, differentiation, niche regulation and paracrine signalling. They developed a therapeutic mouse model of PDGF-AB delivery for enhanced heart repair, now being trialled in pigs. They are also investigating hypoxia as a niche factor in stromal cell biology.

Prof Robert Graham's laboratory studies loss of replicative competence in cardiomyocytes during post-natal life, and how new knowledge may help stimulate heart regeneration. They found the spike in cardiomyocyte proliferation in adolescents driven by thyroid hormone (T3) occurs via an increase in H_2O_2 , a by-product of mitochondrial activity, leading to increase in the growth regulator IGF1. In adults, inhibiting the membrane receptor c-KIT led to chamber hypertrophy and re-entry of cardiomyocytes to the cell cycle after pressure overload, while Myocardial infarction (MI) hearts were resistant to infarct expansion, despite modest changes in cell cycle.

Dr Nathan Palpant's laboratory has built a transcriptional roadmap of cardiac development at single cell resolution using pluripotent stem cells, seeking to understand cardiac cell fate decisions. They have uncovered a new role for the transcriptional regulator HOPX in hypertrophic growth of cardiomyocytes.

Finally, Prof Christophe Marcelle's laboratory is using synthetic biology to develop a novel approach for delivering therapeutic payloads to muscle. They have successfully reconstituted hematopoietic stem cells with a synthetic stem cell expressing the muscle fusogenic protein Myomaker, with Myomaker+ blood cells able to fuse with muscle during inflammation. Current efforts aimed at increasing the efficiency of this process for therapeutic application.

Highlights

- Dr Palpant and colleagues hosted a joint meeting between Stem Cells Australia and the Australian Network of Cardiac and Vascular Developmental Biologists (ANCVDB) held at the Brisbane Powerhouse, Queensland, in November 2017. The meeting brought together more than 80 delegates from around Australia researching cardiovascular development, disease and regeneration, and included notable international speakers Dr James Martin (Baylor University, USA) and Prof Elisabetta Dejana (IFOM, Italy).
- Prof Harvey was conferred Member in the Australia Order of Merit for his contributions to cardiovascular research and training.
- Dr Palpant led a successful bid for \$1.3million in strategic funding from the University of Queensland (2018-2010) to support a novel drug discovery pipeline involving human pluripotent stem cell platforms and animal models
- Profs Graham and Harvey have recently completed a scholarly review in the *Nature* partner journal – *NPG Regenerative Medicine* on comparative regenerative mechanisms across different mammalian tissues. A paper from Prof Graham and Dr Siiri Iismaa on the role of cKIT1 in heart repair after MI has now been accepted for publication in *Scientific Reports*.

Theme: Haematopoiesis

Professor Andrew Elefanty and Dr Samir Taoudi

Converting Stem Cells into Blood Cells

Overview

The focus for this theme is to generate improved methods to make blood cells of clinical importance. To achieve this, we use fundamental discoveries made by studying mouse and human haematopoietic development to inform protocols for human pluripotent stem cell differentiation. We are also exploring ways to grow neutrophils in the laboratory from cord blood and evaluate these cells in clinical trials.

Achievements

The past year has seen tremendous progress in many of our projects. During the course of this program, the strategy of the Haematopoiesis theme has been refined to tackle three goals:

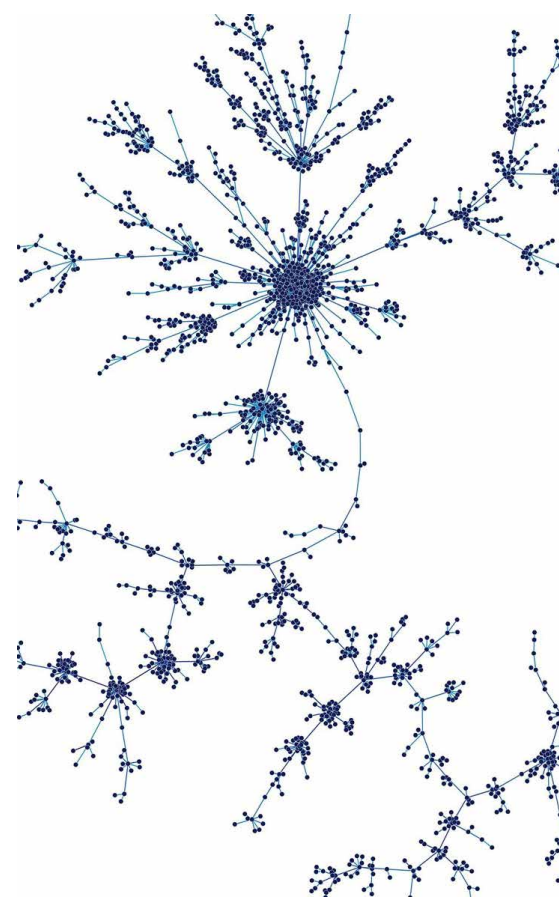
(1) Identify new regulators of blood stem and progenitor cell function.

Although studies are still ongoing, the team led by Dr Samir Taoudi and Prof Douglas Hilton has identified two new transcriptional regulators of the adult stem/progenitor cells; the creation of mouse knockout models of these genes is yielding important data that indicates that they have discovered a molecular program that controls the balance between the stem cell state and induction of differentiation.

Studies from Prof Lars Nielsen's laboratory also continues to make progress on the mathematical modelling of haematopoietic fate decisions, and how these are impacted by alternative splicing.

(2) Understand the trajectories of blood cell fate from extra-embryonic mesoderm. The early blood fate project co-led by Dr Samir Taoudi, Dr Shalin Naik, and Prof Douglas Hilton has used multiple single-cell technologies to yield important to insight into how the blood fates are determined during early mouse embryogenesis.

(3) Understand how platelets are produced *in vivo*. The platelet biology stream has gone from strength-to-strength. Building on studies published from this theme, the team led by Dr Samir Taoudi has discovered the cellular mechanism that sustains the constant supply of platelets required to maintain health. This work has been essential in seeding the development of a new project focused on understanding how failure of platelet production results in neonatal stroke, and how principles of synthetic biology can be applied to engineer the next generation of cellular therapeutics to manage this pathology.



Highlights

- The impact of the findings from platelet formation goal of this theme has been recognised by an invitation for Dr Samir Taoudi to present the teams studies into the *in vivo* mechanism of platelet production at the 'Cell biology of Megakaryocyte and platelets' Gordon Research Conference held in Italy during 26 February and 3 March 2017.
- The platelet and the haematopoietic fate goals have yielded two project grants from the NHMRC to support ongoing studies.

Research Services

Stemformatics: facilitating insight from complex high-dimensional data

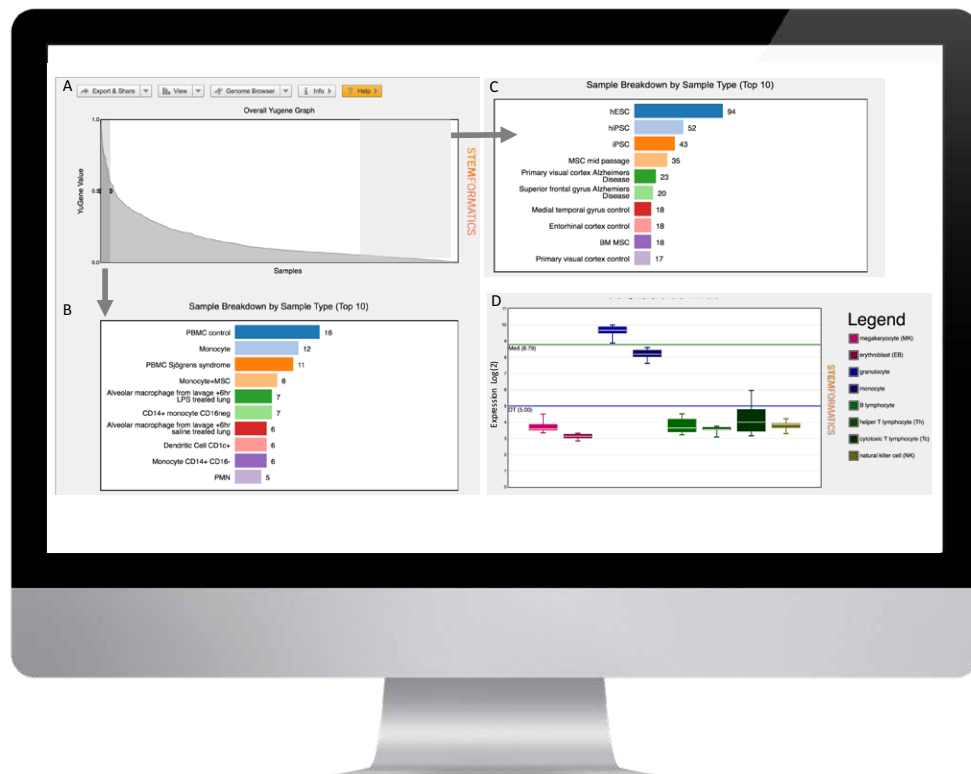
Stemformatics is a web based resource which allows stem cell biologists to quickly and easily explore their datasets and benchmark them against 350+ manually curated, high quality public datasets.

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. Stem Cells Australia has supported Stemformatics since 2012.

During 2017 Stemformatics has continued to curate and make public stem cell datasets. To date we have:

- over 360 transcriptome datasets, encompassing 9000+ samples of stem cells and related cell types;
- rebuilt all our graphs to be faster and to download high-quality images;
- designed more interactive graphs (YuGene) for looking across Stemformatics datasets;
- added the ability to host reports like Differentially Expressed Interactive Reports (Glimma) and PCAs;
- added functionality to run Hierarchical Clustering and Gene Expression Profile searches on RNASeq datasets;
- developed new workflows for importing ATAC-seq and single cell RNASeq datasets and;
- trained students and staff on the Stemformatics ecosystem



Education, Ethics, Law and Community Awareness Unit

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. Activities undertaken by our Unit are underpinned by collaborations with representatives from key community, industry, academic and government bodies and strengthened by consideration of the important ethical and regulatory considerations critical to the advancement of the field.

Achievements

During 2017 we continued to work with our partners within the broader community to create opportunities for our members to meet and discuss their research, its impact and address questions about barriers to progress with students, general public, patients and their families.

A/ Prof Megan Munsie was invited to provide the 2017 MOVE Koadlow Public Lecture and also worked with this and other patient advocacy groups to develop tailored online resources. Our researchers held public forums co-hosted by Centre for Eye Research Australia, Murdoch Children's Research Institute and the City of Melbourne to describe how stem cell science can help understand conditions affecting eye, kidney and brain function. Dr Nathan Palpant and A/ Prof Megan Munsie were invited to participate in a panel discussion on science, ethics and theology at the University of Queensland's Emmanuel Centre. Stem Cells Australia also continued to work closely with high school teachers and students in an effort to take our research out of the lab and into the classroom.

Engagement with industry, specialty medical colleges, regulators and other authorities around how to best support translation of laboratory research into new safe and effective therapeutics and technologies continued to be a key focus of our activities. Our members also participated in research to document and explore the complex socio-cultural dynamics that underpin community expectation in stem cell science and how possible treatments are perceived.

These combined efforts have placed the Stem Cells Australia initiative as a leading innovator in community engagement, outreach and policy advocacy.



Highlights

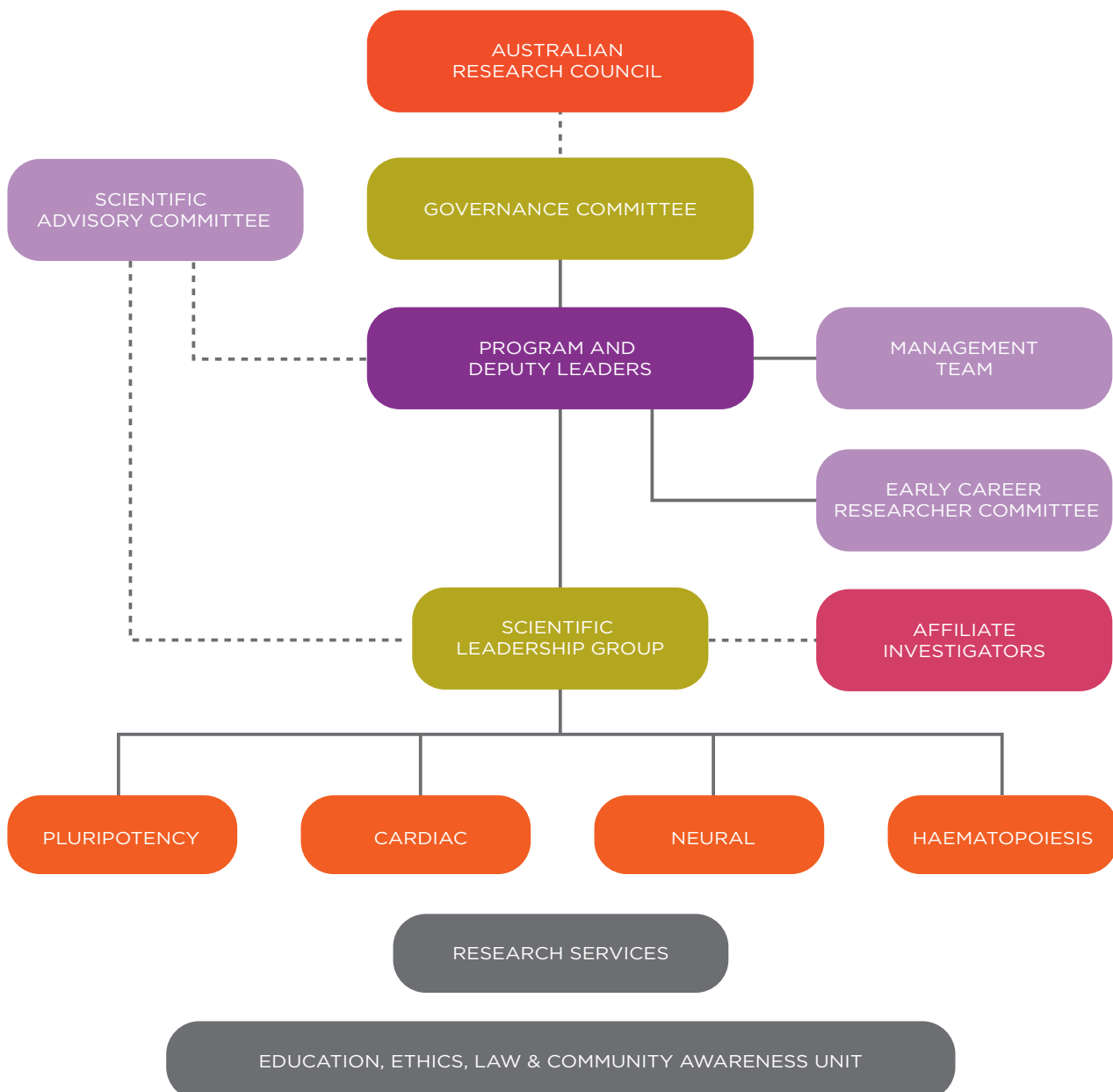
- Developed resources and co-hosted a series of events for high school students and their teachers with the Gene Technology Access Centre in Melbourne.
- Publication of a book – *Stem Cell Tourism and the Political Economy of Hope* – that explores the topic from the perspective of patients and other key stakeholders.
- The announcement by the Australian Government of changes to be introduced around how the manufacture and use of patients' cells and tissues will be regulated, providing greater protections for Australian and overseas patients and bringing local regulations into alignment with international standards. This follows more than six years of Stem Cells Australia and others calling for reform.

Leadership and Governance

Stem Cells Australia, an Australian Research Council Special Research Initiative, was awarded \$21 million, over a seven year period, to bring together Australia's premier life scientists to address the big questions in stem cell science.

Stem Cells Australia was established in 2011 by The University of Melbourne, University of Queensland, Monash University, University of NSW, Walter and Eliza Hall Institute for Medical Research, Victor Chang Cardiac Research Institute*, The Florey Institute of Neuroscience and Mental Health, and Commonwealth Scientific and Industrial Research Organisation with Murdoch Childrens Research Institute joining in 2016.

**VCCRI does not participate in hESC research*



Governance Committee

Consisting of an independent chair and representatives from the partner organisations, the research program and the budgets are approved by the Governance Committee.



Professor David de Kretser
Independent Chair



Dr Julian Clark
Walter & Eliza Hall Institute
of Medical Research



Professor Ross Coppel
Monash University



Dr Henry de Aizpurua
The Florey Institute of
Neuroscience and Mental
Health



Professor Nick Di Girolamo
University of New South
Wales



Ms Britt Granath
Victor Chang Cardiac
Research Institute



Professor Mark Hargreaves
The University of Melbourne



Professor Alastair Mc Ewan
University of Queensland

Scientific Advisory Committee

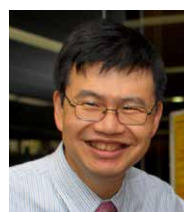
Internationally renowned experts in the field of stem cells, the Scientific Advisory Committee provides strategic advice and feedback on the research performance.



Professor Christine Mummery
Leiden University Medical
Centre, The Netherlands



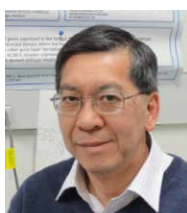
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Lunenfeld-Tanenbaum
Research Institute, Canada



Professor Hideyuki Okano
Keio University, Japan



Professor Michael Rudnicki
Ottawa Hospital Research
Institute, Canada



Professor Patrick Tam
Childrens Medical
Research Institute, Australia



Professor Peter Zandstra
University of Toronto,
Canada

Our People

Scientific Leadership Group

The scientific powerhouse of the initiative, consisting of the program and deputy leader, theme leaders and alternate theme leaders.



Professor Melissa Little
Program Leader,
MCRI



Professor Christine Wells
Deputy Program
Leader, UoM



Professor Perry Bartlett
QBI, UQ



Professor Andrew Elefanty
MCRI



Professor Peter Gray
AIBN, UQ



Professor Richard Harvey
UNSW, VCCRI



Professor Trevor Kilpatrick
UoM, The Florey



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IMB, UQ



Professor Jose Polo
ARMI, Monash



Dr Samir Taoudi
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Professor Robert Graham*
VCCRI, UNSW



Dr Dhanisha Jhaveri*
QBI, UQ



Dr Tobias Merson*
ARMI, Monash



Professor Ed Stanley*
MCRI



Professor Ernst Wolvetang*
AIBN, UQ

**Scientific Leadership Group Alternatives*

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 the junior and senior scientist and the wider stem cell community.



Dr Aude Dorison
Chair, VCCRI



Dr Dhanisha Jhaveri
QBI, UQ



Dr Tobias Merson
ARMI, Monash



Ms Lauren Craig
MCRI



Professor Christine Wells
UoM



Associate Professor Megan Munsie
UoM

Chief and Partner Investigators

The senior researchers and the project leaders of the initiative.



Professor Warren Alexander
Partner Investigator,
WEHI



Professor Perry Bartlett
Chief Investigator
QBI, UQ



Associate Professor James Bourne
Chief Investigator
ARMI, Monash



Professor Justin Cooper-White
Chief Investigator
AIBN, UQ



Professor Andrew Elefanty
Partner Investigator,
MCRI



Professor David Gardner
Chief Investigator,
UoM



Professor Robert Graham
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Professor Peter Gray
Chief Investigator,
AIBN, UQ



Professor Richard Harvey
Chief Investigator,
UNSW, VCCRI



Professor Doug Hilton
Chief Investigator,
UoM, WEHI



Dr Robin Hobbs
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ARMI, Monash



Professor Trevor Kilpatrick
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UoM



Professor Melissa Little
Chief Investigator,
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Professor Lars Nielsen
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Dr Nathan Palpant
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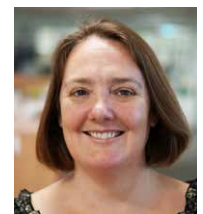
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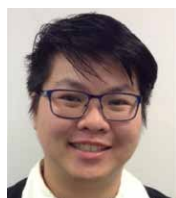
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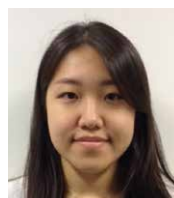
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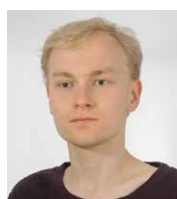
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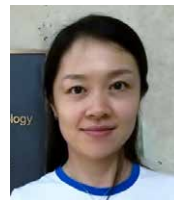
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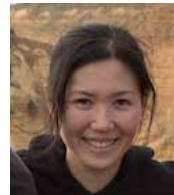
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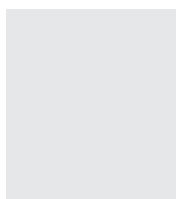
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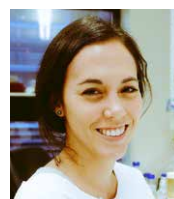
Kanupriya Tiwari
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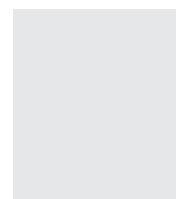
Tim Tracey
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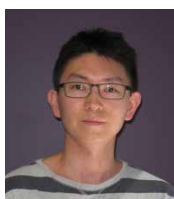
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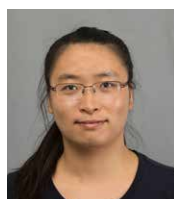
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Our Network

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.



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Arne Adam
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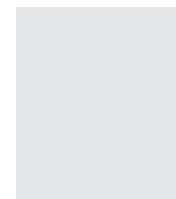
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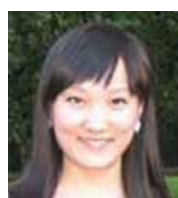
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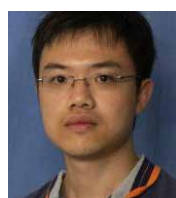
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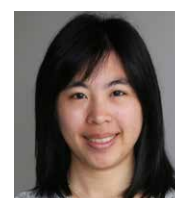
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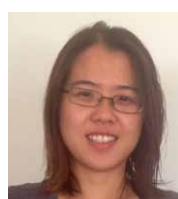
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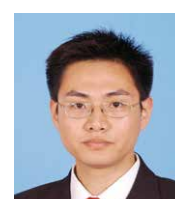
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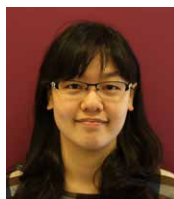
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Dr Charlotte Ermine
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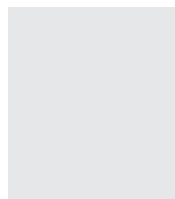
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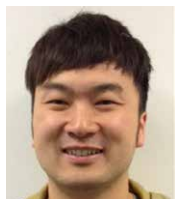
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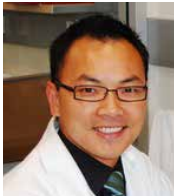
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Affiliate Investigators

Internationally renowned stem cell researchers from outside our direct network.



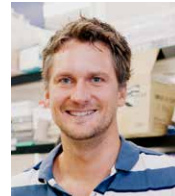
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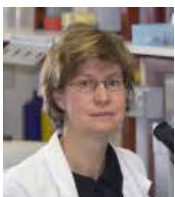
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The Stem Cells Australia initiative is supported by a small administrative team based at the University of Melbourne.



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- Patricia Gigliuto
- Jennifer Gilbert

Performance Tables

Key Result Area 1: Research Performance	2011 KPI		2012 KPI		2013 KPI		2014 KPI		2015 KPI		2016 KPI		2017 KPI	
	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
Number of Conference proceedings	4	3	20	8	20	9	30	1	30	1	35	0	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)
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)
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
Patent applications lodged	0	0	0	1	2	2	2	0	2	1	2	4	2	7

Key Result Area 2: Research Training and Capacity Building	2011 KPI		2012 KPI		2013 KPI		2014 KPI		2015 KPI		2016 KPI		2017 KPI	
	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
Cumulative	8	14	18	22	30	42	56	60	64	68	75	87	86	112
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
Cumulative	9	11	29	51	49	60	69	70	89	84	109	99	129	124
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
Cumulative	0	0	2	2	4	4	10	11	17	20	33	33	50	46
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
Other awards, short term fellowships, recognitions, appointments, promotions	0	1	9	10	11	17	9	7	10	11	9	20+	10	40+

Key Result Area 3: International, national links and networks	2011 KPI		2012 KPI		2013 KPI		2014 KPI		2015 KPI		2016 KPI		2017 KPI	
	Target		Target		Target		Target		Target		Target		Target	
	Actual		Actual		Actual		Actual		Actual		Actual		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
Students attending international research conferences (annual)	1	1	13	2	14	4	19	22	23	7	21	12	23	30
Research collaborations with international centres	2	10	3	22	5	16	5	50	5	47	5	45+	5	40+
International research funding received annually	0	\$470K	\$500K	\$1.5M	\$750K	\$1.2M	\$750K	\$325K	\$750K	\$1.2M	\$1M	\$640K	\$1M	\$1.1M
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%
% publications including cross-institutional authorship annually	25%	18%	50%	12%	60%	3%	65%	60%	65%	73%	65%	73%	65%	72%
Number of international visitors and visiting fellows	0	0	2	2	2	4	2	5	2	3	2	2	2	12
Number of workshops held/organised by the SRI														
Nationally	1	1	1	4	1	7	1	8	1	5	1	4	1	3
Internationally	0	0	1	1	0	1	1	1	0	1	0	0	1	1

Key Result Area 4: Knowledge transfer, outreach and communication	2011 KPI		2012 KPI		2013 KPI		2014 KPI		2015 KPI		2016 KPI		2017 KPI	
	Actual		Target		Actual		Target		Actual		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
Articles	1	7	3	21	3	20+	4	35+	4	35+	4	35+	5	45+
Number of government, industry and business community briefings	1	1	4	7	4	6+	4	4+	4	4	4	8	4	12
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
SRI members participating in community or patient advocacy meetings	3	3	5	16	5	12	10	15	10	13	10	36	15	26
Engagements with science teachers' associations	1	1	3	2	3	3	3	3	3	4	3	3	3	3
Currency of information on the SRI's website (number of news items posted)	Site launched Nov 2011			27		51		37		30		39		68
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

Publications

Journal Articles

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

Adolphe, C., Junker, J. P., Lyubimova, A., van Oudenaarden, A., & Wainwright, B. (2017). Patched Receptors Sense, Interpret, and Establish an Epidermal Hedgehog Signaling Gradient. *Journal Of Investigative Dermatology*, 137, 179-186. IF 6.3

Akkermann, R., Aprico, A., Perera, A. A., Bujalka, H., Cole, A. E., Xiao, J., Field, J., Kilpatrick, T. J., & Binder, M. D. (2017). The TAM receptor Tyro3 regulates myelination in the central nervous system. *Glia*, 65(4), 581-591. IF 6.2

Alexanian, M., Maric, D., Jenkinson, S. P., Mina, M., Friedman, C. E., Ting, C. C., Micheletti, R., Plaisance, I., Nemir, M., Maison, D., Kernén, J., Pezzuto, I., Villeneuve, D., Burdet, F., Ibberson, M., Leib, S. L., Palpant, N. J., Hernandez, N., Ounzain, S., & Pedrazzini, T. (2017). A transcribed enhancer dictates mesendoderm specification in pluripotency. *Nature Communications*, 8(1), 1806. IF 12.1*

Alsanie, W. F., Niclis, J. C., Hunt, C. P., De Luzy, I. R., Penna, V., Bye, C. R., Pouton, C. W., Haynes, J., Firas, J., Thompson, L. H., & Parish, C. L. (2017). Specification of murine ground state pluripotent stem cells to regional neuronal populations. *Scientific Reports*, 7(1), 16001. IF 4.3

Alsanie, W. F., Penna, V., Schachner, M., Thompson, L. H., & Parish, C. L. (2017). Homophilic binding of the neural cell adhesion molecule CHL1 regulates development of ventral midbrain dopaminergic pathways. *Scientific Reports*, 7(1), 9368. IF 4.3

Alshawaf, A. J., Antonic, A., Skafidas, E., Ng, D. C., & Dottori, M. (2017). WDR62 Regulates Early Neural and Glial Progenitor Specification of Human Pluripotent Stem Cells. *Stem Cells International*, 2017, 7848932. IF 3.5

Andrews, P. W., Ben-David, U., Benvenisty, N., Coffey, P., Egan, K., Knowles, B. B., Nagy, A., Pera, M., Reubinoff, B., Rugg-Gunn, P. J., & Stacey, G. N. (2017). Assessing the Safety of Human Pluripotent Stem Cells and Their Derivatives for Clinical Applications. *Stem Cell Reports*, 9(1), 1-4. IF 7.3

Au, A. E., Lebois, M., Sim, S. A., Cannon, P., Corbin, J., Gangatirkar, P., Hyland, C. D., Moujalled, D., Rutgersson, A., Yassinson, F., Kile, B. T., Mason, K. D., Ng, A. P., Alexander, W. S., & Josefsson, E. C. (2017). Altered B-lymphopoiesis in mice with deregulated thrombopoietin signaling. *Scientific Reports*, 7(1), 14953. IF 4.3

Baillie, J. K., Arner, E., Daub, C., De Hoon, M., Itoh, M., Kawaji, H., Lassmann, T., Carninci, P., Forrest, A. R., Hayashizaki, Y., Consortium, F., Faulkner, G. J., Wells, C. A., Rehli, M., Pavli, P., Summers, K. M., & Hume, D. A. (2017). Analysis of the human monocyte-derived macrophage transcriptome and response to lipopolysaccharide provides new insights into genetic aetiology of inflammatory bowel disease. *PLoS Genetics*, 13(3), e1006641. IF 6.1

Barry, G., Briggs, J. A., Hwang, D. W., Nayler, S. P., Fortuna, P. R., Jonkhout, N., Dachet, F., Maag, J. L., Mestdagh, P., Singh, E. M., Avesson, L., Kaczorowski, D. C., Ozturk, E., Jones, N. C., Vetter, I., Arriola-Martinez, L., Hu, J., Franco, G. R., Warn, V. M., Gong, A., Dinger, M. E., Rigo, F., Lipovich, L., Morris, M. J., O'Brien, T. J., Lee, D. S., Loeb, J. A., Blackshaw, S., Mattick, J. S., & Wolvetang, E. J. (2017). The long non-coding RNA NEAT1 is responsive to neuronal activity and is associated with hyperexcitability states. *Scientific Reports*, 7, 40127. IF 4.3

Bellmaine, S. F., Ovchinnikov, D. A., Manallack, D. T., Cuddy, C. E., Elefanty, A. G., Stanley, E. G., Wolvetang, E. J., Williams, S. J., & Pera, M. (2017). Inhibition of DYRK1A disrupts neural lineage specification in human pluripotent stem cells. *Elife*, 6, e24502. IF 7.7

Berger, J., Berger, S., Li, M., & Currie, P. D. (2017). Myo18b is essential for sarcomere assembly in fast skeletal muscle. *Human Molecular Genetics*, 26(6), 1146-1156. IF 5.3

Bloomekatz, J., Singh, R., Prall, O. W., Dunn, A. C., Vaughan, M., Loo, C. S., Harvey, R. P., & Yelon, D. (2017). Platelet-derived growth factor (PDGF) signaling directs cardiomyocyte movement toward the midline during heart tube assembly. *Elife*, 6, e21172. IF 7.7

Bogdanovic, O., & Lister, R. (2017). DNA methylation and the preservation of cell identity. *Current Opinion In Genetics & Development*, 46, 9-14. IF 5.8

Boghdadi, A. G., Teo, L., & Bourne, J. A. (2017). The Involvement of the Myelin-Associated Inhibitors and Their Receptors in CNS Plasticity and Injury. *Molecular Neurobiology*. Epub ahead of print. IF 6.2

Bourne, J. A., & Morrone, M. C. (2017). Plasticity of Visual Pathways and Function in the Developing Brain: Is the Pulvinar a Crucial Player? *Frontiers in Systems Neuroscience*, 11, 3. IF NA

- Bower, N. I., Koltowska, K., Pichol-Thieuvend, C., Virshup, I., Paterson, S., Lagendijk, A. K., Wang, W., Lindsey, B. W., Bent, S. J., Baek, S., Rondon-Galeano, M., Hurley, D. G., Mochizuki, N., Simons, C., Francois, M., Wells, C. A., Kaslin, J., & Hogan, B. M. (2017). Mural lymphatic endothelial cells regulate meningeal angiogenesis in the zebrafish. *Nature Neuroscience*, 20(6), 774-783. IF 17.8*
- Bukhari, W., Prain, K. M., Waters, P., Woodhall, M., O'Gorman, C. M., Clarke, L., Silvestrini, R. A., Bundell, C. S., Abernethy, D., Bhuta, S., Blum, S., Boggild, M., Boundy, K., Brew, B. J., Brown, M., Brownlee, W. J., Butzkueven, H., Carroll, W. M., Chen, C., Coulthard, A., Dale, R. C., Das, C., Dear, K., Fabis-Pedrini, M. J., Fulcher, D., Gillis, D., Hawke, S., Heard, R., Henderson, A. P. D., Heshmat, S., Hodgkinson, S., Jimenez-Sanchez, S., Killpatrick, T., King, J., Kneebone, C., Kornberg, A. J., Lechner-Scott, J., Lin, M. W., Lynch, C., Macdonell, R., Mason, D. F., McCombe, P. A., Pender, M. P., Pereira, J. A., Pollard, J. D., Reddel, S. W., Shaw, C., Spies, J., Stankovich, J., Sutton, I., Vucic, S., Walsh, M., Wong, R. C., Yiu, E. M., Barnett, M. H., Kermode, A. G., Marriott, M. P., Parratt, J. D. E., Slee, M., Taylor, B. V., Willoughby, E., Wilson, R. J., Vincent, A., & Broadley, S. A. (2017). Incidence and prevalence of NMOSD in Australia and New Zealand. *Journal of Neurology Neurosurgery and Psychiatry*, 88(8), 632-638. IF 7.3
- Buzzard, K., Chan, W. H., Kilpatrick, T., & Murray, S. (2017). Multiple Sclerosis: Basic and Clinical. *Advances in Neurobiology*, 15, 211-252. IF NA
- Camarero-Espinosa, S., Stefani, I., & Cooper-White, J. (2017). Hierarchical "As-Electrospun" Self-Assembled Fibrous Scaffolds Deconvolute Impacts of Chemically Defined Extracellular Matrix- and Cell Adhesion-Type Interactions on Stem Cell Haptokinesis. *ACS Macro Letters*, 6(12), 1420-1425. IF 6.2
- Chalmers, D., Rathjen, P., Rathjen, J., & Nicol, D. (2017). Ethics and Governance of Stem Cell Banks. *Methods in Molecular Biology*, 1590, 99-112. IF NA
- Chan, A. L., La, H. M., Legrand, J. M. D., Makela, J. A., Eichenlaub, M., De Seram, M., Ramialison, M., & Hobbs, R. M. (2017). Germline Stem Cell Activity Is Sustained by SALL4-Dependent Silencing of Distinct Tumor Suppressor Genes. *Stem Cell Reports*, 9(3), 956-971. IF 7.3
- Chen, X., Harkness, L., Jia, Z., Prowse, A., Monteiro, M., & Gray, P. P. (2017). Methods for Expansion of 3D cultures of Human Embryonic Stem Cells using a Thermoresponsive Polymer. *Tissue Engineering Part C Methods*. Epub ahead of print. IF NA
- Cleland, J. P., Willis, E. F., Bartlett, P. F., & Vukovic, J. (2017). Somatic Arc protein expression in hippocampal granule cells is increased in response to environmental change but independent of task-specific learning. *Scientific Reports*, 7(1), 12477. IF 4.3
- Combes, A. N., Wilson, S., Phipson, B., Binnie, B. B., Ju, A., Lawlor, K. T., Cebrian, C., Walton, S. L., Smyth, I. M., Moritz, K. M., Kopan, R., Oshlack, A., & Little, M. H. (2017). Haploinsufficiency for the Six2 gene increases nephron progenitor proliferation promoting branching and nephron number. *Kidney International*. Epub ahead of print. IF 8.4
- Coulson, E. J., & Bartlett, P. F. (2017). An exercise path to preventing Alzheimer's disease: An Editorial Highlight on 'Exercise and BDNF reduce Ab production by enhancing alpha-secretase processing of APP'. *Journal of Neurochemistry*, 142(2), 191-193. IF 4.1
- Coulthard, L. G., Hawksworth, O. A., Li, R., Balachandran, A., Lee, J. D., Sepehrband, F., Kurniawan, N., Jeanes, A., Simmons, D. G., Wolvetang, E., & Woodruff, T. M. (2017). Complement C5aR1 Signaling Promotes Polarization and Proliferation of Embryonic Neural Progenitor Cells through PKCzeta. *Journal of Neuroscience*, 37(22), 5395-5407. IF 6.0
- Craig, L. A., Ekert, P. G., Conyers, R., & Elliott, D. A. (2017). Genetic determinants of anthracycline cardiotoxicity - ready for the clinic? *British Journal of Clinical Pharmacology*, 83(5), 1141-1142. IF 3.5
- Crombie, D. E., Curl, C. L., Raaijmakers, A. J., Sivakumaran, P., Kulkarni, T., Wong, R. C., Minami, I., Evans-Galea, M. V., Lim, S. Y., Delbridge, L., Corben, L. A., Dottori, M., Nakatsuji, N., Trounce, I. A., Hewitt, A. W., Delatycki, M. B., Pera, M. F., & Pebay, A. (2017). Friedreich's ataxia induced pluripotent stem cell-derived cardiomyocytes display electrophysiological abnormalities and calcium handling deficiency. *Aging (Albany NY)*, 9(5), 1440-1452. IF 4.9
- Crombie, D. E., Daniszewski, M., Liang, H. H., Kulkarni, T., Li, F., Lidgerwood, G. E., Conquest, A., Hernandez, D., Hung, S. S., Gill, K. P., De Smit, E., Kearns, L. S., Clarke, L., Sluch, V. M., Chamling, X., Zack, D. J., Wong, R. C. B., Hewitt, A. W., & Pebay, A. (2017). Development of a Modular Automated System for Maintenance and Differentiation of Adherent Human Pluripotent Stem Cells. *SLAS Discovery*, 22(8), 1016-1025. IF 2.4
- Daniszewski, M., Crombie, D. E., Henderson, R., Liang, H. H., Wong, R. C. B., Hewitt, A. W., & Pebay, A. (2017). Automated Cell Culture Systems and Their Applications to Human Pluripotent Stem Cell Studies. *SLAS Technology*, 2472630317712220. IF 2.8
- Daniszewski, M., Pebay, A. & Crombie, D.E. (2017). Benefits of automation for pluripotent stem cell therapies, disease modelling and drug discovery. *Cell and Gene Therapy Insights*, 3(8), 613-621. IF NA
- de Rie, D., Abugessaisa, I., Alam, T., Arner, E., Arner, P., Ashoor, H., Astrom, G., Babina, M., Bertin, N., Burroughs, A. M., Carlisle, A. J., Daub, C. O., Detmar, M., Deviatilarov, R., Fort, A., Gebhard, C., Goldowitz, D., Guhl, S., Ha, T. J., Harshbarger, J., Hasegawa, A., Hashimoto, K., Herlyn, M., Heutink, P., Hitchens, K. J., Hon, C. C., Huang, E., Ishizu, Y., Kai, C., Kasukawa, T., Klinken, P., Lassmann, T., Lecellier, C. H., Lee, W., Lizio, M., Makeev, V., Mathelier, A., Medvedeva, Y. A., Meijert, N., Mungall, C. J., Noma,

- S., Ohshima, M., Okada-Hatakeyama, M., Persson, H., Rizzu, P., Roudnicky, F., Saetrom, P., Sato, H., Severin, J., Shin, J. W., Swoboda, R. K., Tarui, H., Toyoda, H., Vitting-Seerup, K., Winteringham, L., Yamaguchi, Y., Yasuzawa, K., Yoneda, M., Yumoto, N., Zabierowski, S., Zhang, P. G., Wells, C. A., Summers, K. M., Kawaji, H., Sandelin, A., Rehli, M., Consortium, F., Hayashizaki, Y., Carninci, P., Forrest, A. R. R., & de Hoon, M. J. L. (2017). An integrated expression atlas of miRNAs and their promoters in human and mouse. *Nature Biotechnology*, 35(9), 872-878. IF 41.7*
- de Torrente, L., Zimmerman, S., Taylor, D., Hasegawa, Y., Wells, C. A., & Mar, J. C. (2017). pathVar: a new method for pathway-based interpretation of gene expression variability. *PeerJ*, 5, e3334. IF 2.2
- Ding, S., Kingshott, P., Thissen, H., Pera, M., & Wang, P. Y. (2017). Modulation of human mesenchymal and pluripotent stem cell behavior using biophysical and biochemical cues: A review. *Biotechnology And Bioengineering*, 114(2), 260-280. IF 4.5
- Domingues, M. J., Cao, H., Heazlewood, S. Y., Cao, B., & Nilsson, S. K. (2017). Niche Extracellular Matrix Components and Their Influence on HSC. *Journal of Cellular Biochemistry*, 118(8), 1984-1993. IF 3.1
- Domingues, M. J., Nilsson, S. K., & Cao, B. (2017). New agents in HSC mobilization. *The International Journal of Hematology*, 105(2), 141-152. IF 1.6
- Dudczig, S., Currie, P. D., Poggi, L., & Jusuf, P. R. (2017). In Vivo Imaging of Transgenic Gene Expression in Individual Retinal Progenitors in Chimeric Zebrafish Embryos to Study Cell Nonautonomous Influences. *Journal of Visualized Experiments* (121), e55490. IF NA
- Emery, B., Mitew, S., Gobius, I., Fenlon, L., McDougall, S., Hawkes, D., Xing, L., Bujalka, H., Gundlach, A., Richards, L., Kilpatrick, T., & Merson, T. (2017). The regulation of CNS myelination by neuronal activity. *Journal Of Neurochemistry*, 142, 21-21. IF 4.1
- Field, J., Binder, M., & Kilpatrick, T. (2017). Dissecting novel therapeutic targets for progressive multiple sclerosis. *Journal Of Neurochemistry*, 142, 40. IF 4.1
- Field, J., Fox, A., Jordan, M. A., Baxter, A. G., Spelman, T., Gresle, M., Butzkueven, H., Kilpatrick, T. J., & Rubio, J. P. (2017). Interleukin-2 receptor-alpha proximal promoter hypomethylation is associated with multiple sclerosis. *Genes & Immunity*, 18(2), 59-66. IF 2.5
- Firas, J., & Polo, J. M. (2017). Towards understanding transcriptional networks in cellular reprogramming. *Current Opinion In Genetics & Development*, 46, 1-8. IF 5.8
- Fonoudi, H., & Bosman, A. (2017). Turning Potential Into Action: Using Pluripotent Stem Cells to Understand Heart Development and Function in Health and Disease. *Stem Cells Translational Medicine*, 6(6), 1452-1457. IF 4.0
- Fu, N. Y., Rios, A. C., Pal, B., Law, C. W., Jamieson, P., Liu, R., Vaillant, F., Jackling, F., Liu, K. H., Smyth, G. K., Lindeman, G. J., Ritchie, M. E., & Visvader, J. E. (2017). Identification of quiescent and spatially restricted mammary stem cells that are hormone responsive. *Nature Cell Biology*, 19(3), 164-176. IF 20.1*
- Furtado, M. B., Wilmanns, J. C., Chandran, A., Perera, J., Hon, O., Biben, C., Willow, T. J., Nim, H. T., Kaur, G., Simonds, S., Wu, Q., Williams, D., Salimova, E., Plachta, N., Denegre, J. M., Murray, S. A., Fatkin, D., Cowley, M., Pearson, J. T., Kaye, D., Ramialison, M., Harvey, R. P., Rosenthal, N. A., & Costa, M. W. (2017). Point mutations in murine Nkx2-5 phenocopy human congenital heart disease and induce pathogenic Wnt signaling. *JCI Insight*, 2(6), e88271. IF NA
- Galloway, C. A., Dalvi, S., Hung, S. S. C., MacDonald, L. A., Latchney, L. R., Wong, R. C. B., Guymer, R. H., Mackey, D. A., Williams, D. S., Chung, M. M., Gamm, D. M., Pebay, A., Hewitt, A. W., & Singh, R. (2017). Drusen in patient-derived hiPSC-RPE models of macular dystrophies. *Proceedings of the National Academy of Sciences of The United States Of America*, 114(39), E8214-E8223. IF 9.7
- Gardner, D. K., & Kelley, R. L. (2017). Impact of the IVF laboratory environment on human preimplantation embryo phenotype. *Journal of Developmental Origins of Health and Disease*, 8(4), 418-435. IF 2.1
- Ghazizadeh, Z., Rassouli, H., Fonoudi, H., Alikhani, M., Talkhabi, M., Darbandi-Azar, A., Chen, S., Baharvand, H., Aghdami, N., & Salekdeh, G. H. (2017). Transient Activation of Reprogramming Transcription Factors Using Protein Transduction Facilitates Conversion of Human Fibroblasts Toward Cardiomyocyte-Like Cells. *Molecular Biotechnology*, 59(6), 207-220. IF 1.6
- Gilbert, J., Reynolds, N. P., Russell, S. M., Haylock, D., McArthur, S., Charnley, M., & Jones, O. G. (2017). Chitosan-coated amyloid fibrils increase adipogenesis of mesenchymal stem cells. *Materials Science & Engineering. C, Materials for Biological Applications*, 79, 363-371. IF 4.2
- Godwin, J. W., Debuque, R., Salimova, E., & Rosenthal, N. A. (2017). Heart regeneration in the salamander relies on macrophage-mediated control of fibroblast activation and the extracellular landscape. *NPJ Regenerative Medicine*, 2, 22. IF NA
- Godwin, J. W., Pinto, A. R., & Rosenthal, N. A. (2017). Chasing the recipe for a pro-regenerative immune system. *Seminars in Cell & Developmental Biology*, 61, 71-79. IF 6.6
- Heazlewood, S. Y., Nilsson, S. K., Cartledge, K., Be, C. L., Vinson, A., Gel, M., & Haylock, D. N. (2017). Progress in bio-manufacture of platelets for transfusion. *Platelets*, 28(7), 649-656. IF 2.5
- Ho, U. Y., & Wainwright, B. J. (2017). Patched1 patterns Fibroblast growth factor 10 and Forkhead box F1 expression during pulmonary branch formation. *Mechanisms Of Development*, 147, 37-48. IF 1.3

- Homman-Ludiye, J., Kwan, W. C., de Souza, M. J., Rodger, J., & Bourne, J. A. (2017). Ephrin-A2 regulates excitatory neuron differentiation and interneuron migration in the developing neocortex. *Scientific Reports*, 7(1), 11813. IF 4.3
- Hon, C. C., Ramilowski, J. A., Harshbarger, J., Bertin, N., Rackham, O. J., Gough, J., Denisenko, E., Schmeier, S., Poulsen, T. M., Severin, J., Lizio, M., Kawaji, H., Kasukawa, T., Itoh, M., Burroughs, A. M., Noma, S., Djebali, S., Alam, T., Medvedeva, Y. A., Testa, A. C., Lipovich, L., Yip, C. W., Abugessaisa, I., Mendez, M., Hasegawa, A., Tang, D., Lassmann, T., Heutink, P., Babina, M., Wells, C. A., Kojima, S., Nakamura, Y., Suzuki, H., Daub, C. O., de Hoon, M. J., Arner, E., Hayashizaki, Y., Carninci, P., & Forrest, A. R. (2017). An atlas of human long non-coding RNAs with accurate 5' ends. *Nature*, 543(7644), 199-204. IF 40.1*
- Hudson, J. E., & Porrello, E. R. (2017). FunSel: Mesenchymal Stromal Cells Stay for the Party. *Circulation*, 136(16), 1525-1527. IF 19.3*
- Hudson, J. E., & Porrello, E. R. (2017). Periostin paves the way for neonatal heart regeneration. *Cardiovascular Research*, 113(6), 556-558. IF 5.9
- Hui, S. P., Sheng, D. Z., Sugimoto, K., Gonzalez-Rajal, A., Nakagawa, S., Hesselson, D., & Kikuchi, K. (2017). Zebrafish Regulatory T Cells Mediate Organ-Specific Regenerative Programs. *Developmental Cell*, 43(6), 659-672. IF 9.2
- Hurlbut, J. B., Hyun, I., Levine, A. D., Lovell-Badge, R., Lunshof, J. E., Matthews, K. R. W., Mills, P., Murdoch, A., Pera, M. F., Scott, C. T., Tizzard, J., Warnock, M., Zernicka-Goetz, M., Zhou, Q., & Zoloth, L. (2017). Revisiting the Warnock rule. *Nature Biotechnology*, 35(11), 1029-1042. IF 41.7*
- Illykh, A., & Pinto, A. R. (2017). The Role of Cardiac Tissue Macrophages in Homeostasis and Disease. *Advances in Experimental Medicine and Biology*, 1003, 105-118. IF 1.9
- Ivanovs, A., Rybtsov, S., Ng, E. S., Stanley, E. G., Elefanty, A. G., & Medvinsky, A. (2017). Human haematopoietic stem cell development: from the embryo to the dish. *Development*, 144(13), 2323-2337. IF 5.8
- Joensuu, M., Martinez-Marmol, R., Padmanabhan, P., Glass, N. R., Durisic, N., Pelekanos, M., Mollazade, M., Balistreri, G., Amor, R., Cooper-White, J. J., Goodhill, G. J., & Meunier, F. A. (2017). Visualizing endocytic recycling and trafficking in live neurons by subdiffractional tracking of internalized molecules. *Nature Protocols*, 12(12), 2590-2622. IF 10.0*
- Jokubaitis, V. G., Kalincik, T., Horakova, D., Havrdova, E., Kleinova, P., Izquierdo, G., Matesanz, F., Kilpatrick, T. J., Lechner-Scott, J., Slee, M., Barnett, M., Vucic, S., Booth, D., Manouchehrinia, A., Patsopoulos, N., De Jager, P. L., Taylor, B. V., Hillert, J., & Butzkueven, H. (2017). Genotype-phenotype correlations in relapsing-remitting multiple sclerosis: making use of a robust severity phenotype. *Multiple Sclerosis Journal*, 23(1), 59-59. IF 4.8
- Joshi, K., Labonne, T., Elefanty, A. G., Tiwari, S., Godbole, M. M., Bhatia, V., Bhatia, E., Cameron, F. J., & Stanley, E. G. (2017). Revisiting the Role of Autoantibodies in the Immunopathogenic Mechanisms of Type 1 Diabetes Using Stem Cell Derived Beta Cells. *Hormone Research in Paediatrics*, 88, 229-229. IF 1.8
- Joun, G., Fonoudi, H., & Asli, N. S. (2017). Cancer Cell Properties Shape Along Metabolic Activity in Human Epithelial Carcinoma. *Stem Cell Research & Therapy*, SCRT-117. IF 4.2
- Kaakinen, M., Reichelt, M. E., Ma, Z., Ferguson, C., Martel, N., Porrello, E. R., Hudson, J. E., Thomas, W. G., Parton, R. G., & Headrick, J. P. (2017). Cavin-1 deficiency modifies myocardial and coronary function, stretch responses and ischaemic tolerance: roles of NOS over-activity. *Basic Research In Cardiology*, 112(3), 24. IF 5.3
- Keightley, M. C., Nilsson, S. K., & Lieschke, G. J. (2017). MED12 in hematopoietic stem cells-cell specific function despite ubiquitous expression. *Stem Cell Investigation*, 4, 3. IF NA
- Kelley, R. L., & Gardner, D. K. (2017). In vitro culture of individual mouse preimplantation embryos: the role of embryo density, microwells, oxygen, timing and conditioned media. *Reproductive Biomedicine Online*, 34(5), 441-454. IF 3.2
- Kennedy-Lydon, T., & Rosenthal, N. (2017). Cardiac regeneration: All work and no repair? *Science Translational Medicine*, 9(383), eaad9017. IF 16.8*
- Kim, J. H., Kurtz, A., Yuan, B. Z., Zeng, F., Lomax, G., Loring, J. F., Crook, J., Ju, J. H., Clarke, L., Inamdar, M. S., Pera, M., Firpo, M. T., Sheldon, M., Rahman, N., O'Shea, O., Pranke, P., Zhou, Q., Isasi, R., Rungsiwut, R., Kawamata, S., Oh, S., Ludwig, T., Masui, T., Novak, T. J., Takahashi, T., Fujibuchi, W., Koo, S. K., & Stacey, G. N. (2017). Report of the International Stem Cell Banking Initiative Workshop Activity: Current Hurdles and Progress in Seed-Stock Banking of Human Pluripotent Stem Cells. *Stem Cells Translational Medicine*, 6(11), 1956-1962. IF 4.0
- Knaupp, A. S., Buckberry, S., Pflueger, J., Lim, S. M., Ford, E., Larcombe, M. R., Rossello, F. J., de Mendoza, A., Alaei, S., Firas, J., Holmes, M. L., Nair, S. S., Clark, S. J., Nefzger, C. M., Lister, R., & Polo, J. M. (2017). Transient and Permanent Reconfiguration of Chromatin and Transcription Factor Occupancy Drive Reprogramming. *Cell Stem Cell*, 21(6), 834-845. IF 23.4*
- Kretzmann, J. A., Ho, D., Evans, C. W., Plani-Lam, J. H. C., Garcia-Bloj, B., Mohamed, A. E., O'Mara, M. L., Ford, E., Tan, D. E. K., Lister, R., Blancafort, P., Norret, M., & Iyer, K. S. (2017). Synthetically controlling dendrimer flexibility improves delivery of large plasmid DNA. *Chemical Science*, 8(4), 2923-2930. IF 8.7

- Lee, J. Y., Kim, M. J., Deliyanti, D., Azari, M. F., Rossello, F., Costin, A., Ramm, G., Stanley, E. G., Elefanty, A. G., Wilkinson-Berka, J. L., & Petratos, S. (2017). Overcoming Monocarboxylate Transporter 8 (MCT8)-Deficiency to Promote Human Oligodendrocyte Differentiation and Myelination. *EBioMedicine*, 25, 122-135. IF NA
- Lee, T. L., Lysaght, T., Lipworth, W., Hendl, T., Kerridge, I., Munsie, M., & Stewart, C. (2017). Regulating the stem cell industry: needs and responsibilities. *Bulletin World Health Organization*, 95(9), 663-664. IF NA
- Lees, J. G., Gardner, D. K., & Harvey, A. J. (2017). Pluripotent Stem Cell Metabolism and Mitochondria: Beyond ATP. *Stem Cells International*, 2017, 2874283. IF 3.5
- Lefevre, J. G., Chiu, H. S., Combes, A. N., Vanslambrouck, J. M., Ju, A., Hamilton, N. A., & Little, M. H. (2017). Self-organisation after embryonic kidney dissociation is driven via selective adhesion of ureteric epithelial cells. *Development*, 144(6), 1087-1096. IF 5.8
- Legrand, J. M. D., & Hobbs, R. M. (2017). RNA processing in the male germline: Mechanisms and implications for fertility. *Seminars In Cell & Developmental Biology*. Epub ahead of print. IF 6.6
- Leuning, D. G., Reinders, M. E., Li, J., Peired, A. J., Lievers, E., de Boer, H. C., Fibbe, W. E., Romagnani, P., van Kooten, C., Little, M. H., Engelse, M. A., & Rabelink, T. J. (2017). Clinical-Grade Isolated Human Kidney Perivascular Stromal Cells as an Organotypic Cell Source for Kidney Regenerative Medicine. *Stem Cells Translational Medicine*, 6(2), 405-418. IF 4.0
- Li, M., Hromowyk, K. J., Amacher, S. L., & Currie, P. D. (2017). Muscular dystrophy modeling in zebrafish. *Methods In Cell Biology*, 138, 347-380. IF 1.3
- Little, M. H. (2017). Organoids: a Special Issue. *Development*, 144(6), 935-937. IF 5.8
- Little, M. H., & Kairath, P. (2017). Does Renal Repair Recapitulate Kidney Development? *Journal Of The American Society Of Nephrology*, 28(1), 34-46. IF 9.0
- Liu, E. T., Bolcun-Filas, E., Grass, D. S., Lutz, C., Murray, S., Shultz, L., & Rosenthal, N. (2017). Of mice and CRISPR: The post-CRISPR future of the mouse as a model system for the human condition. *EMBO Reports*, 18(2), 187-193. IF 8.6
- Liu, X., Nefzger, C. M., Rossello, F. J., Chen, J., Knaupp, A. S., Firas, J., Ford, E., Pflueger, J., Paynter, J. M., Chy, H. S., O'Brien, C. M., Huang, C., Mishra, K., Hodgson-Garms, M., Jansz, N., Williams, S. M., Blewitt, M. E., Nilsson, S. K., Schittenhelm, R. B., Laslett, A. L., Lister, R., & Polo, J. M. (2017). Comprehensive characterization of distinct states of human naive pluripotency generated by reprogramming. *Nature Methods*, 14(11), 1055-1062. IF 25.1*
- Lu, H., Galeano, M. C. R., Ott, E., Kaeslin, G., Kausalya, P. J., Kramer, C., Ortiz-Bruchle, N., Hilger, N., Metzis, V., Hiersche, M., Tay, S. Y., Tunningley, R., Vij, S., Courtney, A. D., Whittle, B., Wuhl, E., Vester, U., Hartleben, B., Neuber, S., Frank, V., Little, M. H., Epting, D., Papathanasiou, P., Perkins, A. C., Wright, G. D., Hunziker, W., Gee, H. Y., Otto, E. A., Zerres, K., Hildebrandt, F., Roy, S., Wicking, C., & Bergmann, C. (2017). Mutations in DZIP1L, which encodes a ciliary-transition-zone protein, cause autosomal recessive polycystic kidney disease. *Nature Genetics*, 49(7), 1025-1034. IF 28.0*
- Lysaght, T., Lipworth, W., Hendl, T., Kerridge, I., Lee, T. L., Munsie, M., Waldby, C., & Stewart, C. (2017). The deadly business of an unregulated global stem cell industry. *Journal Of Medical Ethics*, 43(11), 744-746. IF 1.5
- Meganathan, K., Lewis, E. M. A., Gontarz, P., Liu, S., Stanley, E. G., Elefanty, A. G., Huettner, J. E., Zhang, B., & Kroll, K. L. (2017). Regulatory networks specifying cortical interneurons from human embryonic stem cells reveal roles for CHD2 in interneuron development. *Proceedings of the National Academy of Sciences USA*, 114(52), E11180-E11189. IF 9.7
- Mills, R. J., Titmarsh, D. M., Koenig, X., Parker, B. L., Ryall, J. G., Quaife-Ryan, G. A., Voges, H. K., Hodson, M. P., Ferguson, C., Drowley, L., Plowright, A. T., Needham, E. J., Wang, Q. D., Gregorevic, P., Xin, M., Thomas, W. G., Parton, R. G., Nielsen, L. K., Launikonis, B. S., James, D. E., Elliott, D. A., Porrello, E. R., & Hudson, J. E. (2017). Functional screening in human cardiac organoids reveals a metabolic mechanism for cardiomyocyte cell cycle arrest. *Proceedings of the National Academy of Sciences USA*, 114(40), E8372-E8381. IF 9.7
- Mills, R. J., Voges, H. K., Porrello, E. R., & Hudson, J. E. (2017). Cryoinjury Model for Tissue Injury and Repair in Bioengineered Human Striated Muscle. *Methods in Molecular Biology*, 1668, 209-224. IF NA
- Minoda, Y., Virshup, I., Leal Rojas, I., Haigh, O., Wong, Y., Miles, J. J., Wells, C. A., & Radford, K. J. (2017). Human CD141(+) Dendritic Cell and CD1c(+) Dendritic Cell Undergo Concordant Early Genetic Programming after Activation in Humanized Mice In Vivo. *Frontiers in Immunology*, 8, 1419. IF 6.4
- Morin, V., Veron, N., & Marcelle, C. (2017). CRISPR/Cas9 in the Chicken Embryo. *Methods in Molecular Biology*, 1650, 113-123. IF NA
- Morrison, M., Bell, J., George, C., Harmon, S., Munsie, M., & Kaye, J. (2017). The European General Data Protection Regulation: challenges and considerations for iPSC researchers and biobanks. *Regenerative Medicine*, 12(6), 693-703. IF 2.9
- Muerza-Cascante, M. L., Shokoohmand, A., Khosrotehrani, K., Haylock, D., Dalton, P. D., Hutmacher, D. W., & Loessner, D. (2017). Endosteal-like extracellular matrix expression on melt electrospun written scaffolds. *Acta Biomaterialia*, 52, 145-158. IF 6.3
- Mundinano, I. C., Chen, J., de Souza, M., Sarossy, M. G., Joannis, M. F., Goodale, M. A., & Bourne, J. A. (2017). More than blindsight: Case report of a child with extraordinary visual capacity following perinatal bilateral occipital lobe injury. *Neuropsychologia*. Epub ahead of print. IF 3.2

- Munsie, M., Hyun, I., & Sugarman, J. (2017). Ethical issues in human organoid and gastruloid research. *Development*, 144(6), 942-945. IF 5.8
- Munsie, M., Lysaght, T., Hendl, T., Tan, H. L., Kerridge, I., & Stewart, C. (2017). Open for business: a comparative study of websites selling autologous stem cells in Australia and Japan. *Regenerative Medicine*. Epub ahead of print. IF 2.9
- Murphy, A. R., Ghobrial, I., Jamshidi, P., Laslett, A., O'Brien, C. M., & Cameron, N. R. (2017). Tailored emulsion-templated porous polymer scaffolds for iPSC-derived human neural precursor cell culture. *Polymer Chemistry*, 8(43), 6617-6627. IF 5.4
- Murphy, A. R., Laslett, A., O'Brien, C. M., & Cameron, N. R. (2017). Scaffolds for 3D in vitro culture of neural lineage cells. *Acta Biomaterialia*, 54, 1-20. IF 6.3
- Navarro-Montero, O., Ayllon, V., Lamolda, M., Lopez-Onieva, L., Montes, R., Bueno, C., Ng, E., Guerrero-Carreno, X., Romero, T., Romero-Moya, D., Stanley, E., Elefanty, A., Ramos-Mejia, V., Menendez, P., & Real, P. J. (2017). RUNX1c Regulates Hematopoietic Differentiation of Human Pluripotent Stem Cells Possibly in Cooperation with Proinflammatory Signaling. *Stem Cells*, 35(11), 2253-2266. IF 5.6
- Nayler, S. P., Powell, J. E., Vanichkina, D. P., Korn, O., Wells, C. A., Kanjhan, R., Sun, J., Taft, R. J., Lavin, M. F., & Wolvetang, E. J. (2017). Human iPSC-Derived Cerebellar Neurons from a Patient with Ataxia-Telangiectasia Reveal Disrupted Gene Regulatory Networks. *Frontiers in Cellular Neuroscience*, 11, 321. IF 4.6
- Nayler, S., Kozlov, S. V., Lavin, M. F., & Wolvetang, E. (2017). Lentiviral Reprogramming of A-T Patient Fibroblasts to Induced Pluripotent Stem Cells. *Methods in Molecular Biology*, 1599, 401-418. IF NA
- Nefzger, C. M., & Polo, J. M. (2017). DEAD-Box RNA Binding Protein DDX5: Not a Black-Box during Reprogramming. *Cell Stem Cell*, 20(4), 419-420. IF 23.4*
- Nefzger, C. M., Rossello, F. J., Chen, J., Liu, X., Knaupp, A. S., Firas, J., Paynter, J. M., Pflueger, J., Buckberry, S., Lim, S. M., Williams, B., Alaei, S., Faye-Chauhan, K., Petretto, E., Nilsson, S. K., Lister, R., Ramialison, M., Powell, D. R., Rackham, O. J. L., & Polo, J. M. (2017). Cell Type of Origin Dictates the Route to Pluripotency. *Cell Reports*, 21(10), 2649-2660. IF 8.3
- Ng Chi Kei, J., Currie, P. D., & Jusuf, P. R. (2017). Fate bias during neural regeneration adjusts dynamically without recapitulating developmental fate progression. *Neural Development*, 12(1), 12. IF 2.1
- Ng, A. P., & Alexander, W. S. (2017). Haematopoietic stem cells: past, present and future. *Cell Death Discovery*, 3, 17002. IF NA
- Nguyen, P. D., & Currie, P. D. (2017). Using Transgenic Zebrafish to Study Muscle Stem/Progenitor Cells. *Methods in Molecular Biology*, 1556, 117-125. IF NA
- Nguyen, P. D., Gurevich, D. B., Sonntag, C., Hersey, L., Alaei, S., Nim, H. T., Siegel, A., Hall, T. E., Rossello, F. J., Boyd, S. E., Polo, J. M., & Currie, P. D. (2017). Muscle Stem Cells Undergo Extensive Clonal Drift during Tissue Growth via Meox1-Mediated Induction of G2 Cell-Cycle Arrest. *Cell Stem Cell*, 21(1), 107-119.e6. IF 23.4*
- Niclis, J. C., Gantner, C. W., Hunt, C. P. J., Kauhausen, J. A., Durnall, J. C., Haynes, J. M., Pouton, C. W., Parish, C. L., & Thompson, L. H. (2017). A PITX3-EGFP Reporter Line Reveals Connectivity of Dopamine and Non-dopamine Neuronal Subtypes in Grafts Generated from Human Embryonic Stem Cells. *Stem Cell Reports*, 9(3), 868-882. IF 7.3
- Niclis, J. C., Turner, C., Durnall, J., McDougal, S., Kauhausen, J. A., Leaw, B., Dottori, M., Parish, C. L., & Thompson, L. H. (2017). Long-Distance Axonal Growth and Protracted Functional Maturation of Neurons Derived from Human Induced Pluripotent Stem Cells After Intracerebral Transplantation. *Stem Cells Translational Medicine*, 6(6), 1547-1556. IF 4.0
- Nilsson, S. K. (2017). Factors that influence a mobilized HSC product. *International Journal of Hematology*, 105(2), 116-117. IF 1.6
- Noguchi, S., Arakawa, T., Fukuda, S., Furuno, M., Hasegawa, A., Hori, F., Ishikawa-Kato, S., Kaida, K., Kaiho, A., Kanamori-Katayama, M., Kawashima, T., Kojima, M., Kubosaki, A., Manabe, R. I., Murata, M., Nagao-Sato, S., Nakazato, K., Ninomiya, N., Nishiyori-Sueki, H., Noma, S., Saijyo, E., Saka, A., Sakai, M., Simon, C., Suzuki, N., Tagami, M., Watanabe, S., Yoshida, S., Arner, P., Axton, R. A., Babina, M., Baillie, J. K., Barnett, T. C., Beckhouse, A. G., Blumenthal, A., Bodega, B., Bonetti, A., Briggs, J., Brombacher, F., Carlisle, A. J., Clevers, H. C., Davis, C. A., Detmar, M., Dohi, T., Edge, A. S. B., Edinger, M., Ehlund, A., Ekwall, K., Endoh, M., Enomoto, H., Eslami, A., Fagiolini, M., Fairbairn, L., Farach-Carson, M. C., Faulkner, G. J., Ferrai, C., Fisher, M. E., Forrester, L. M., Fujita, R., Furusawa, J. I., Geijtenbeek, T. B., Gingeras, T., Goldowitz, D., Guhl, S., Guler, R., Gustincich, S., Ha, T. J., Hamaguchi, M., Hara, M., Hasegawa, Y., Herlyn, M., Heutink, P., Hitchens, K. J., Hume, D. A., Ikawa, T., Ishizu, Y., Kai, C., Kawamoto, H., Kawamura, Y. I., Kempfle, J. S., Kenna, T. J., Kere, J., Khachigian, L. M., Kitamura, T., Klein, S., Klinken, S. P., Knox, A. J., Kojima, S., Koseki, H., Koyasu, S., Lee, W., Lennartsson, A., Mackay-Sim, A., Mejhert, N., Mizuno, Y., Morikawa, H., Morimoto, M., Moro, K., Morris, K. J., Motohashi, H., Mummery, C. L., Nakachi, Y., Nakahara, F., Nakamura, T., Nakamura, Y., Nozaki, T., Ogishima, S., Ohkura, N., Ohno, H., Ohshima, M., Okada-Hatakeyama, M., Okazaki, Y., Orlando, V., Ovchinnikov, D. A., Passier, R., Patrikakis, M., Pombo, A., Pradhan-Bhatt, S., Qin, X. Y., Rehli, M., Rizzu, P., Roy, S., Sajantila, A., Sakaguchi, S., Sato, H., Satoh, H., Savvi, S., Saxena, A., Schmidl, C., Schneider, C., Schulze-Tanzil, G. G., Schwegmann, A., Sheng, G., Shin, J. W., Sugiyama, D., Sugiyama, T., Summers, K. M., Takahashi, N., Takai, J., Tanaka, H., Tatsukawa, H., Tomoiu, A., Toyoda, H., van de Wetering, M., van den Berg, L. M., Verardo, R., Vijayan, D., Wells, C. A., Winteringham, L. N., Wolvetang, E., Yamaguchi, Y., Yamamoto, M., Yanagi-Mizuochi, C., Yoneda, M., Yonekura, Y., Zhang, P. G., Zucchelli, S., Abugessaisa, I., Arner, E., Harshbarger, J., Kondo, A.,

- Lassmann, T., Lizio, M., Sahin, S., Sengstag, T., Severin, J., Shimoji, H., Suzuki, M., Suzuki, H., Kawai, J., Kondo, N., Itoh, M., Daub, C. O., Kasukawa, T., Kawaji, H., Carninci, P., Forrest, A. R. R., & Hayashizaki, Y. (2017). FANTOM5 CAGE profiles of human and mouse samples. *Scientific Data*, 4, 170112. IF NA
- Oxburgh, L., Carroll, T. J., Cleaver, O., Gossett, D. R., Hoshizaki, D. K., Hubbell, J. A., Humphreys, B. D., Jain, S., Jensen, J., Kaplan, D. L., Kesselman, C., Ketchum, C. J., Little, M. H., McMahon, A. P., Shankland, S. J., Spence, J. R., Valerius, M. T., Wertheim, J. A., Wessely, O., Zheng, Y., & Drummond, I. A. (2017). (Re)Building a Kidney. *Journal Of The American Society Of Nephrology*, 28(5), 1370-1378. IF 9.0
- Palpant, N. J., Pabon, L., Friedman, C. E., Roberts, M., Hadland, B., Zaunbrecher, R. J., Bernstein, I., Zheng, Y., & Murry, C. E. (2017). Generating high-purity cardiac and endothelial derivatives from patterned mesoderm using human pluripotent stem cells. *Nature Protocols*, 12(1), 15-31. IF 10.0*
- Palpant, N. J., Wang, Y., Hadland, B., Zaunbrecher, R. J., Redd, M., Jones, D., Pabon, L., Jain, R., Epstein, J., Ruzzo, W. L., Zheng, Y., Bernstein, I., Margolin, A., & Murry, C. E. (2017). Chromatin and Transcriptional Analysis of Mesoderm Progenitor Cells Identifies HOPX as a Regulator of Primitive Hematopoiesis. *Cell Reports*, 20(7), 1597-1608. IF 8.3
- Pasquier, J., Gupta, R., Rioult, D., Hoarau-Vechot, J., Courjaret, R., Machaca, K., Al Suwaidi, J., Stanley, E. G., Rafii, S., Elliott, D. A., Abi Khalil, C., & Rafii, A. (2017). Coculturing with endothelial cells promotes in vitro maturation and electrical coupling of human embryonic stem cell-derived cardiomyocytes. *Journal Of Heart And Lung Transplantation*, 36(6), 684-693. IF 7.1
- Pera, M. (2017). Biomedical engineering: In vitro amniogenesis. *Nature Materials*, 16(4), 394-395. IF 39.7*
- Pera, M. (2017). Embryogenesis in a dish. *Science*, 356(6334), 137-138. IF 37.2*
- Pera, M. F. (2017). Human embryo research and the 14-day rule. *Development*, 144(11), 1923-1925. IF 5.8
- Quaife-Ryan, G. A., Sim, C. B., Ziemann, M., Kaspi, A., Rafehi, H., Ramialison, M., El-Osta, A., Hudson, J. E., & Porrello, E. R. (2017). Multi-Cellular Transcriptional Analysis of Mammalian Heart Regeneration. *Circulation*, 136(12), 1123-1139. IF 19.3*
- Ramialison, M., Waardenberg, A. J., Schonrock, N., Doan, T., de Jong, D., Bouveret, R., & Harvey, R. P. (2017). Analysis of steric effects in DamID profiling of transcription factor target genes. *Genomics*, 109(2), 75-82. IF 2.8
- Ratnayake, D., & Currie, P. D. (2017). Stem cell dynamics in muscle regeneration: Insights from live imaging in different animal models. *Bioessays*, 39, 1700011. IF 4.4
- Rodriguez, A. L., Bruggeman, K. F., Wang, Y., Wang, T. Y., Williams, R. J., Parish, C. L., & Nisbet, D. R. (2017). Using minimalist self-assembling peptides as hierarchical scaffolds to stabilize growth factors and promote stem cell integration in the injured brain. *Journal of Tissue Engineering and Regenerative Medicine*. Epub ahead of print. IF 4.0
- Rosenthal, N. (2017). A Guardian of the Heartbeat. *New England Journal Of Medicine*, 377(1), 84-86. IF 72.4*
- Sattler, S., Fairchild, P., Watt, F. M., Rosenthal, N., & Harding, S. E. (2017). The adaptive immune response to cardiac injury-the true roadblock to effective regenerative therapies? *NPJ Regenerative Medicine*, 2, 19. IF NA
- Saul, A., Ponsonby, A. L., Lucas, R. M., Taylor, B.V., Simpson, S., Valery, P., Dwyer, T., Kilpatrick, T. J., Pender, M. P., & van der Mei, I. A. (2017). Stressful life events and the risk of initial central nervous system demyelination. *Multiple Sclerosis Journal*, 23(7), 1000-1007. IF 4.8
- Shohayeb, B., Lim, N. R., Ho, U., Xu, Z., Dottori, M., Quinn, L., & Ng, D. C. H. (2017). The Role of WD40-Repeat Protein 62 (MCPH2) in Brain Growth: Diverse Molecular and Cellular Mechanisms Required for Cortical Development. *Molecular Neurobiology*. Epub ahead of print. IF 6.2
- Sieiro, D., Veron, N., & Marcelle, C. (2017). The chicken embryo as an efficient model to test the function of muscle fusion genes in amniotes. *PLoS One*, 12(5), e0177681. IF 2.8
- Sipp, D., Caulfield, T., Kaye, J., Barfoot, J., Blackburn, C., Chan, S., De Luca, M., Kent, A., McCabe, C., Munsie, M., Sleeboom-Faulkner, M., Sugarman, J., van Zimmeren, E., Zarzecny, A., & Rasko, J. E. J. (2017). Marketing of unproven stem cell-based interventions: A call to action. *Science Translational Medicine*, 9(397), eaag0426. IF 16.8*
- Skelton, R. J. P., Kamp, T. J., Elliott, D. A., & Ardehali, R. (2017). Biomarkers of Human Pluripotent Stem Cell-Derived Cardiac Lineages. *Trends In Molecular Medicine*, 23(7), 651-668. IF 10.7*
- Somaa, F. A., Wang, T. Y., Niclis, J. C., Bruggeman, K. F., Kauhausen, J. A., Guo, H., McDougall, S., Williams, R. J., Nisbet, D. R., Thompson, L. H., & Parish, C. L. (2017). Peptide-Based Scaffolds Support Human Cortical Progenitor Graft Integration to Reduce Atrophy and Promote Functional Repair in a Model of Stroke. *Cell Reports*, 20(8), 1964-1977. IF 8.3
- Stangel, M., Kuhlmann, T., Matthews, P. M., & Kilpatrick, T. J. (2017). Achievements and obstacles of remyelinating therapies in multiple sclerosis. *Nature Reviews Neurology*, 13(12), 742-754. IF 20.3*
- Sugimoto, K., Hui, S. P., Sheng, D. Z., & Kikuchi, K. (2017). Dissection of zebrafish shha function using site-specific targeting with a Cre-dependent genetic switch. *Elife*, 6, e24635. IF 7.7
- Takasato, M., & Little, M. H. (2017). Making a Kidney Organoid Using the Directed Differentiation of Human

Pluripotent Stem Cells. *Methods in Molecular Biology*, 1597, 195-206. IF NA

Tanner, C., Petersen, A., & Munsie, M. (2017). 'No one here's helping me, what do you do?': addressing patient need for support and advice about stem cell treatments. *Regenerative Medicine*, 12(7), 791-801. IF 2.9

Tiburcy, M., Hudson, J. E., Balfanz, P., Schlick, S., Meyer, T., Chang Liao, M. L., Levent, E., Raad, F., Zeidler, S., Wingender, E., Riegler, J., Wang, M., Gold, J. D., Kehat, I., Wettwer, E., Ravens, U., Dierickx, P., van Laake, L. W., Goumans, M. J., Khadjeh, S., Toischer, K., Hasenfuss, G., Couture, L. A., Unger, A., Linke, W. A., Araki, T., Neel, B., Keller, G., Gepstein, L., Wu, J. C., & Zimmermann, W. H. (2017). Defined Engineered Human Myocardium With Advanced Maturation for Applications in Heart Failure Modeling and Repair. *Circulation*, 135(19), 1832-1847. IF 19.3*

Titmarsh, D. M., Tan, C. L., Glass, N. R., Nurcombe, V., Cooper-White, J. J., & Cool, S. M. (2017). Microfluidic Screening Reveals Heparan Sulfate Enhances Human Mesenchymal Stem Cell Growth by Modulating Fibroblast Growth Factor-2 Transport. *Stem Cells Translational Medicine*, 6(4), 1178-1190. IF 4.0

Trott, J., Tan, E. K., Ong, S., Titmarsh, D. M., Denil, S., Giam, M., Wong, C. K., Wang, J., Shboul, M., Eio, M., Cooper-White, J., Cool, S. M., Rancati, G., Stanton, L. W., Reversade, B., & Dunn, N. R. (2017). Long-Term Culture of Self-renewing Pancreatic Progenitors Derived from Human Pluripotent Stem Cells. *Stem Cell Reports*, 8(6), 1675-1688. IF 7.3

Trusler, O., Huang, Z., Goodwin, J., & Laslett, A. L. (2017). Cell surface markers for the identification and study of human naïve pluripotent stem cells. *Stem Cell Research*, 26, 36-43. IF 3.5

Valensisi, C., Andrus, C., Buckberry, S., Doni Jayavelu, N., Lund, R. J., Lister, R., & Hawkins, R. D. (2017). Epigenomic Landscapes of hESC-Derived Neural Rosettes: Modeling Neural Tube Formation and Diseases. *Cell Reports*, 20(6), 1448-1462. IF 8.3

van de Moosdijk, A. A., Fu, N. Y., Rios, A. C., Visvader, J. E., & van Amerongen, R. (2017). Lineage Tracing of Mammary Stem and Progenitor Cells. *Methods in Molecular Biology*, 1501, 291-308. IF NA

Vitale, A. M., Matigian, N. A., Cristino, A. S., Nones, K., Ravishankar, S., Bellette, B., Fan, Y., Wood, S. A., Wolvetang, E., & Mackay-Sim, A. (2017). DNA methylation in schizophrenia in different patient-derived cell types. *NPJ Schizophrenia*, 3, 6. IF NA

Voges, H. K., Mills, R. J., Elliott, D. A., Parton, R. G., Porrello, E. R., & Hudson, J. E. (2017). Development of a human cardiac organoid injury model reveals innate regenerative potential. *Development*, 144(6), 1118-1127. IF 5.8

Walton, S. L., Bielefeldt-Ohmann, H., Singh, R. R., Li, J., Paravicini, T. M., Little, M. H., & Moritz, K. M. (2017).

Prenatal hypoxia leads to hypertension, renal renin-angiotensin system activation and exacerbates salt-induced pathology in a sex-specific manner. *Scientific Reports*, 7(1), 8241. IF 4.3

Wang, Y., Wu, B., Lu, P., Zhang, D., Wu, B., Varshney, S., Del Monte-Nieto, G., Zhuang, Z., Charafeddine, R., Kramer, A. H., Sibinga, N. E., Frangogiannis, N. G., Kitsis, R. N., Adams, R. H., Alitalo, K., Sharp, D. J., Harvey, R. P., Stanley, P., & Zhou, B. (2017). Uncontrolled angiogenic precursor expansion causes coronary artery anomalies in mice lacking Pofut1. *Nature Communications*, 8(1), 578. IF 12.1*

Willis, E. F., Bartlett, P. F., & Vukovic, J. (2017). Protocol for Short- and Longer-term Spatial Learning and Memory in Mice. *Frontiers in Behavioral Neuroscience*, 11, 197. IF 3.1

Wong, R. C. B., Hung, S. S., Jackson, S., Singh, V., Khan, S., Liang, H. H., Kearns, L. S., Nguyen, T., Conquest, A., Daniszewski, M., Hewitt, A. W., & Pebay, A. (2017). Generation of a human induced pluripotent stem cell line CERAi001-A-6 using episomal vectors. *Stem Cell Research*, 22, 13-15. IF 3.5

Wong, R. C. B., Lim, S. Y., Hung, S. S. C., Jackson, S., Khan, S., Van Bergen, N. J., De Smit, E., Liang, H. H., Kearns, L. S., Clarke, L., Mackey, D. A., Hewitt, A. W., Trounce, I. A., & Pebay, A. (2017). Mitochondrial replacement in an iPSC model of Leber's hereditary optic neuropathy. *Aging (Albany NY)*, 9(4), 1341-1350. IF 4.9

Workman, M. J., Mahe, M. M., Trisno, S., Poling, H. M., Watson, C. L., Sundaram, N., Chang, C. F., Schiesser, J., Aubert, P., Stanley, E. G., Elefanty, A. G., Miyaoka, Y., Mandegar, M. A., Conklin, B. R., Neunlist, M., Brugmann, S. A., Helmrath, M. A., & Wells, J. M. (2017). Engineered human pluripotent-stem-cell-derived intestinal tissues with a functional enteric nervous system. *Nature Medicine*, 23(1), 49-59. IF 29.9*

Xiang, Y., Tanaka, Y., Patterson, B., Kang, Y. J., Govindaiah, G., Roselaar, N., Cakir, B., Kim, K. Y., Lombroso, A. P., Hwang, S. M., Zhong, M., Stanley, E. G., Elefanty, A. G., Naegele, J. R., Lee, S. H., Weissman, S. M., & Park, I. H. (2017). Fusion of Regionally Specified hPSC-Derived Organoids Models Human Brain Development and Interneuron Migration. *Cell Stem Cell*, 21(3), 383-398 e387. IF 23.4*

Zamir, L., Singh, R., Nathan, E., Patrick, R., Yifa, O., Yahalom-Ronen, Y., Arraf, A. A., Schultheiss, T. M., Suo, S., Han, J. J., Peng, G., Jing, N., Wang, Y., Palpant, N., Tam, P. P., Harvey, R. P., & Tzahor, E. (2017). Nkx2.5 marks angioblasts that contribute to hemogenic endothelium of the endocardium and dorsal aorta. *Elife*, 6, e20994. IF 7.7

Books and Book Chapters

Books

Pébay A. & Wong R. (Eds.) (2017) Stem Cell Biology and Regenerative Medicine, *Lipidomics of Stem Cells*. Humana Press, USA.

Petersen A., Munsie M., Tanner C., MacGregor C. & Brophy J. (Eds.) (2017) *Stem Cell Tourism: Patients' Hopes Confront Technological Promise*. Palgrave Macmillan, London.

Book Chapters

Kaye J., Bell J., Prictor M. & Munsie M. (2017) Trends and challenges in biobanking. In: Freckelton I. & Petersen K. (Eds.) *Tensions and Traumas in Health Law*. Federation Press, AUS.

Lidgerwood G.E. & Pébay A. (2017) Lysophosphatidic acid and sphingosine-1-phosphate in pluripotent stem cells. In: Pébay A. & Wong R. (Eds.) Stem Cell Biology and Regenerative Medicine, *Lipidomics of Stem Cells*. Humana Press, USA.

Little M.H. (2017) Kidney development in the mammal. In: Orlando G., Remuzzi G. Williams D.F. (Eds.) *Kidney Transplantation, Bioengineering and Regeneration*. Associated Press, USA.

Little M.H., Takasato M., Soo J.YC., Forbes T.A. (2017) Recapitulating Development to Generate Kidney Organoid Cultures. In: Tsuji T. (Eds) *Organ Regeneration Based on Developmental Biology*. Springer, Singapore.

MacGregor, C., McCaughey, T., Munsie, M., Pébay, A. & Hewitt, A.W. (2017). The immortal life of ethics? The alienation of body tissue, ethics and the informed consent procedure within induced pluripotent stem cell research. In: Shaw R.M. (Ed.) *Bioethics Beyond Altruism: Donating and Transforming Biological Materials*. Basingstoke: Palgrave Macmillan, London.

Osafune K. & Little M.H. (2017) Regeneration of kidney from human reprogrammed stem cells. In: Orlando G., Remuzzi G. Williams D.F. (Eds.) *Kidney Transplantation, Bioengineering and Regeneration*. Associated Press, USA.

Grants

List of grants secured by researchers commencing in 2017.

Researcher	Funding Scheme	Project Title	Value	Duration
International				
James Bourne (ARMI, Monash)	2017 National Alliance for Research on Schizophrenia and Depression (NARSAD) Independent Investigator Grant from the Brain and Behaviour Research Foundation	A pulvinar connection to Schizophrenia during Brain Development	\$132,000	2017-2019
Melissa Little (MCRI)	National Institutes of Health, USA	NIH UH3 Rebuilding a Kidney	\$1,312,500	2017-2019
Melissa Little (MCRI)	Dutch Kidney Foundation		\$450,000	2017-2019
Melissa Little (MCRI)	Organovo Inc		\$200,000	2017-2018
Christophe Marcelle (ARMI, Monash)	French Muscular Dystrophy Association	Muscle fusion as a delivery mechanism to repair ailing muscles from heritable muscle diseases	\$180,000	2017
Christophe Marcelle (ARMI, Monash)	Monaco Muscular Dystrophy Association	Muscle fusion as a delivery mechanism to repair ailing muscles from heritable muscle diseases	\$154,000	2017
Yasuyuki Osanai (ARMI, Monash)	Naito Foundation (Japan) Study Abroad Fellowship	Functional analysis of myelination by oligodendrocytes in learning and memory	\$54,360 (¥4.5m)	2017
ARC				
Justin Cooper-White (AIBN, UQ)	ARC Linkage Infrastructure Equipment and Facilities	AutoStem: A high performance, automated stem cell bioengineering facility	\$483,000	2017-2018
Justin Cooper-White (AIBN, UQ)	ARC Linkage Grant	Mathematical and computational models for agrichemical retention on plants	\$800,000	2017-2019
Robert Graham (VCCRI)	ARC Discovery Grant	Cardiac α 1-adrenergic receptors in survival of the fittest	\$366,500	2017-2019
Ryan Lister (UWA) et al	ARC Linkage Infrastructure Equipment and Facilities	Western Australia single-cell isolation and genomics preparation facility	\$410,000	2017-2019
Robert Nordon (UNSW) et al.	ARC Linkage Grant	Scaling manufacture of 3D microstructures for the medical devices industry	\$381,334	2017-2021
Nathan Palpant (UQ) et al	ARC Discovery Grant	Understanding the differentiation of the endocardium	\$428,000	2017-2019
Alice Pébay, Mirella Dottori, Megan Munsie (UoM) et al	Industrial Transformation Training Centres	ARC Training Centre for Personalised Therapeutics Technologies	\$3,123,492	2017-2021
NHMRC				
Warren Alexander, Doug Hilton (WEHI)	NHMRC Program Grant	Regulation of Haemopoietic and Immune Cells in Health and Disease	\$19,924,985	2017-2021
Warren Alexander (WEHI)	NHMRC Project Grant	Role of Erg in B-cell Acute Lymphoblastic Leukaemia	\$749,034	2017-2019
Perry Bartlett (UQ, QBI)	NHMRC Project Grant	Exercise reverses cognitive decline in aged animals by growth hormone stimulation of neurogenesis in the hippocampus	\$696,409	2017-2019
Alison Conquest (UoM, CERA)	NHMRC Postgraduate Scholarship (Dora Lush Biomedical Postgraduate Scholarship)	Modelling Age-related Macular Degeneration using patient specific induced pluripotent stem cells	\$86,117	2017-2019

Researcher	Funding Scheme	Project Title	Value	Duration
James Chong (USyd), David Elliott (MCRI) et al	NHMRC Project Grant	Pluripotent Stem Cell Derived Cardiomyocytes: Improving Electrical Stability and Quantifying Functional Improvements	\$669,832	2017-2019
Peter Currie (Monash, ARMI)	NHMRC Project Grant	Defining the role of glycosylation in basement membrane failure during muscular dystrophy	\$824,664	2017-2020
Andrew Elefanty (MCRI)	NHMRC Research Fellowship	Haematopoietic stem cells from human pluripotent stem cells: the future of bone marrow transplantation	\$763,845	2017-2021
Andrew Elefanty & Ed Stanley (MCRI)	NHMRC Project Grant	Transcriptional regulation of definitive hematopoietic development in humans	\$800,036	2017-2019
Andrew Elefanty & Ed Stanley (MCRI)	NHMRC Project Grant	Generating haematopoietic stem cells from human pluripotent stem cells	\$872,215	2017-2019
Richard Harvey (VCCRI)	NHMRC Research Fellowship	Molecular Approaches to Cardiac Development, Disease and Regeneration	\$863,910	2017-2021
Richard Harvey (VCCRI), Mirana Ramialison (ARMI, Monash) et al.	NHMRC Project Grant	Genome-wide analysis of gene regulatory networks in heart development and congenital heart disease	\$1,263,954	2017-2021
James Hudson (UQ)	NHMRC Career Development Fellowships (RD Wright Biomedical CDF)	Using human 3D engineered heart tissue for discovery of novel biology and novel therapeutics	\$425,048	2017-2020
Kazu Kikuchi (VCCRI)	NHMRC Project Grant	Tissue-dependent proregenerative mechanisms in adult vertebrates	\$638,742	2017-2019
Ryan Lister (UWA), Jose Polo (Monash), Ernst Wolvetang (UQ) et al.	NHMRC Project Grant	Leveraging genomics strategies to generate adult neurons from iPSCs and somatic cells	\$1,593,336	2017-2020
Ryan Lister (UWA)	NHMRC Project Grant	Deciphering the role of DNA methylation in the regulation of alternative splicing	\$865,494	2017-2020
Shalin Naik (WEHI)	NHMRC Project Grant	Identification of haematopoietic stem and progenitor cell subpopulations	\$873,525	2017-2020
Nathan Palpant (UQ) et al	NHMRC Project Grant	Investigating a novel genetic regulator of cardiac rhythm	\$557,100	2017-2019
Clare Parish (The Florey)	NHMRC Project Grant	Using stem cells and bioengineered scaffolds to promote regeneration following necrotic brain injury	\$710,857	2017-2019
Pankaj Sah (UQ)	NHMRC Project Grant	Neural circuits that mediate fear extinction	\$941,656	2017-2020
Ed Stanley (MCRI) et al	NHMRC Project Grant	Stem cell based strategies for re-establishing T cell immunity in aging and disease	\$845,777	2017-2019
Samir Taoudi (WEHI)	NHMRC Project Grant	Understanding the ancestry of de novo blood formation in the early embryo	\$484,666	2017-2019
Samir Taoudi (WEHI)	NHMRC Project Grant	Investigating the formation and utility of the prenatal platelet forming system	\$793,442	2017-2019
Lachlan Thompson (The Florey)	NHMRC Project Grant	Pre-clinical steps towards a stem cell therapy for Parkinson's disease	\$1,179,594	2017-2020
Ernst Wolvetang (UQ), Justin Cooper-White (UQ), Dmitry Ovchinnikov (UQ) et al.	NHMRC Project Grant	Re-wiring a stem cell: Deciphering the molecular mechanism underpinning lineage propensity	\$855,780	2017-2019
Jane Visvader (WEHI)	NHMRC Program Grant	Apoptosis and Stem/Progenitor Cells in the Development and Treatment of Cancer	\$2,541,285	2017-2021

Researcher	Funding Scheme	Project Title	Value	Duration
Other				
Joseph Chen (Monash, ARMI)	Australian Regenerative Medicine Institute and Cell Mogrify Research Collaboration (Industrial Partnership Fellowship)	Reprogramming of adult cells for regenerative medicine therapies	\$26,000	2017-2020
Duncan Crombie (UoM, CERA)	University of Melbourne ECR	'Mini-eyes': ocular organoids for disease modelling.	\$39,135	2017
Alexandra Grubman, Jose Polo (ARMI, Monash)	JMYulgilbar Foundation Grant	Using reprogramming to generate Alzheimer's Disease microglia	\$50,000	2017
Alexandra Grubman, Jose Polo (ARMI, Monash) et al.	Monash University Joint Medicine-Pharmacy grant	Generation of mature human microglial cells from skin or stem cells	\$50,000	2017
James Hudson (UQ)	National Heart Foundation Future Leaders Fellowship	Using human 3D engineered heart tissue for discovery of novel biology and novel therapeutics	\$180,000	2017-2020
Trevor Kilpatrick (The Florey)	Perpetual	Development of a Novel Cellular Therapy to Treat Progressive Multiple Sclerosis	\$60,000	2017-2018
Trevor Kilpatrick & Judith Field (The Florey)	Bethlehem Griffiths	Developing a treatment for repairing the damage in Multiple Sclerosis;	\$40,000	2017
Trevor Kilpatrick (The Florey) et al.	University of Melbourne	Modulating innate immunity for therapeutic benefit for therapeutic benefit in MS by targeting Mertk	\$20,000	2017
Tobias Merson & Stan Mitew (ARMI, Monash)	Multiple Sclerosis Research Australia Project Grant	The role of neuronal activity in promoting remyelination of the brain	\$120,000	2017-2018
Alice Pébay (UoM, CERA) et al.	Cure for MND Foundation.	Preclinical development of neuropeptide Y for the treatment of motor neuron disease	\$964,000	2017-2020
Alice Pébay, Duncan Crombie (UoM, CERA) et al.	Retina Australia	Large scale generation of retinal pigment epithelium cells from patient induced pluripotent stem cells.	\$40,000	2017
Alice Pébay (UoM, CERA)	Eye Research Foundation	Developing an in vitro retinal disease model to predict, identify and treat diseases of the retina	\$212,070	2017-2018
Jose Polo (ARMI, Monash)	Cell Mogrify Australia Ltd	Reprogramming of adult cells for regenerative medicine therapies	\$109,000	2017-2020
Jose Polo (ARMI, Monash)	Prostate Cancer Foundation of Australia	A predictive computational framework for targeted reprogramming of castrate resistant prostate cancer	\$100,000	2017-2018
Mirana Ramialison (ARMI, Monash) et al.	Monash FMNHS/Science InterDisciplinary Grant		\$28,000	2017
Ed Stanley (MCRI) et al.	Juvenile Diabetes Research Foundation (JDRF)	Using autologous iPSC-derived beta cells to identify epitopes recognized by human islet infiltrating CD8+ T cells.	\$1,500,000	2017-2019
Lachlan Thompson (The Florey)	Motor Neuron Disease Research Institute	An optimised immuno-suppression treatment for pre-clinical development of human cell based therapies for MND using rat models	\$80,000	2017-2018
Christine Wells (UoM), Alice Pébay (UoM, CERA) et al.	Therapeutics Technologies Research Initiative - University of Melbourne.	Barcoding technology applied to reprogramming iPSCs.	\$15,000	2017
Christine Wells (UoM) for Stemformatics	Research Data Services	Expose Stemformatics data to GVL via Bioblend API and Stemformatics visualisation and analysis tools integrated into GVL	\$29,668	2017
Total			\$52,959,362	

Awards and Appointments

Recipient	Achievement
Perry Bartlett (QBI, UQ)	Queensland's Australian of the year
Perry Bartlett (QBI, UQ)	2017 Queensland Greats Award
Ben Cao (CSIRO)	Gilead Sciences International Research Scholars Program in Hematology and Oncology
Alison Conquest (UoM, CERA)	NHMRC Postgraduate Scholarship (Dora Lush Biomedical Postgraduate Scholarship)
Peter Currie (ARMI, Monash)	2017 The Australia and New Zealand Society for Cell and Developmental Biology (ANZSCDB) President's Medalist
Isabelle de Luzy (The Florey)	Scholarship to attend the International Neuroscience School of Advanced Studies
Mirella Dottori (UoM & UoW)	New appointment as Principal Research Fellow, University of Wollongong
Nona Farbehi (UNSW)	Best Poster Prize (& flash talk), Sydney Cardiovascular Symposium, Sydney Australia
Hananeh Fonoudi (VCCRI)	Recipient of Postgraduate Award for Research Excellence at Australian Society for Medical Research Annual Scientific Meeting, Westmead, Australia
David Gardner (UoM)	Elected as a Fellow of the Australian Academy of Science
David Gardner (UoM)	Distinguished researcher award from the American Society for Reproductive Medicine
Peter Gray (AIBN, UQ)	Recipient of the Order of Australia 2017
Richard Harvey (VCCRI)	Member, Order of Australia, General Division (AM)
Richard Harvey (VCCRI)	Joseph Meyerhoff Visiting Professorship, Weizmann Institute of Science, sabbatical visit
Doug Hilton (WEHI)	2017 Monash Distinguished Alumni Award (Faculty of Biomedical and Physiological Sciences), Monash University
James Hudson (UQ)	National Heart Foundation Queensland Cardiovascular Researcher of the year
James Hudson (UQ)	Centenary Institute Medical Innovation Award
James Hudson (UQ)	The Heart Foundation Paul Korner Innovation Award
Brett Kagan (The Florey)	Australasian Gene & Cell therapy and Australasian Society for Stem Cell Research conference best poster award
Loan Le (Westmead Institute for Medical Research)	Winner basic science young investigator award- Ralph Reader
Melissa Little (MCRI)	Elected as a Fellow of the Australian Academy of Science
Melissa Little (MCRI)	Elected, Board member, ISSCR
Melissa Little (MCRI)	Chair, Scientific Organising committee, ISSCR2018
Melissa Little (MCRI)	President, ASSCR
Ethan Liu (ARMI, Monash)	Carmela and Carmelo Ridolfo Prize in Stem Cell Research
Megan Munsie (UoM)	Member - AusBiotech Regenerative Medicine Advisory Group
Megan Munsie (UoM)	Member, Steering Committee - University of Melbourne, Hallmark Research Initiative in Therapeutic Technologies
Megan Munsie (UoM)	Chair - Policy, Ethics and Translation Australasian Society for Stem Cell Research Sub-Committee
Megan Munsie (UoM)	Member - International Society for Stem Cell Research Ethics Committee
Megan Munsie (UoM)	Member - International Society for Cellular Therapy Presidential Taskforce

Recipient	Achievement
Megan Munsie (UoM)	Member - Australian Academy of Science National Committee for Cellular and Developmental Biology
Megan Munsie (UoM)	Member - Victorian Assisted Reproductive Treatment Authority Advisory Panel
Lars Nielsen (AIBN, UQ)	CSIRO FSP Synthetic Biology Steering Committee Member
Nathan Palpant (IMB, UQ)	Global Strategy and Partnerships Award
Nathan Palpant (IMB, UQ)	Wellcome Trust Award, The International Congress of the Society for Developmental Biology
Clare Parish (The Florey)	British Pharmacological Society Bulbring Award
Fernando Rosello (ARMI, Monash)	Academic Level Promotion from Level B to Level C Research Fellow
Julian Stolper (ARMI, Monash)	Melbourne PhD Research Scholarship
Leon Teo (ARMI, Monash)	Young Investigator Award, Asia Pacific Society for Neurochemistry
Jane Visvader (WEHI)	2017 Victoria Prize in the Life Sciences

International Conference Presentations

Attendee/Presenter name	Type of presentation	Presentation Title
Dhanushi Abeygunawardena	Poster	Cell fate decisions of cardiac CFU-Fs
Dhanushi Abeygunawardena	Poster	Comparison of atrial and ventricular cCFU-Fs, insights for better cell therapy approaches for cardiac regeneration
Dhanushi Abeygunawardena	Poster	Comparison of atrial and ventricular mesenchymal stem cells
Arne Adam	Poster	Loss of Rearranged L-Myc Fusion (RLF) results in defects in heart development in the mouse
Warren Alexander	Invited	Expression and Roles of the Mpl Receptor in Health and Disease
Perry Bartlett	Oral	Exercise 'sweet spot' reverses learning deficits in aged animals by stimulation of hippocampal neurogenesis
Christine Biben	Oral	Wt1 is required for proepicardial development
Anthony Boghdadi	Oral	A Novel Transient Glial Interaction Following Ischemic Stroke in the Marmoset
Freya Bruveris	Poster	RUNX1 signaling, but not SOX17 is required for the formation of human haemogenic endothelium derived primitive blood cells
Ben Cao	Oral	Chemosensitisation of acute lymphoblastic leukaemia using a small molecule integrin antagonist
Justin Cooper-White	Plenary	From droplets to stem cells: Exploiting space and time with microfluidic devices
Justin Cooper-White	Keynote	Scaffolds and Targeting Nanoparticles for Engineering Regeneration – Regenerative Engineering!
Justin Cooper-White	Keynote	A high throughput biomaterials synthesis and formulation pipeline for bio-ink and injectable hydrogel discovery
Justin Cooper-White	Keynote	Developing deterministic biomaterial systems to control stem cell fate
Justin Cooper-White	Keynote	Tailoring polymeric network structure and function to elicit control over stem cell fate
Justin Cooper-White	Keynote	Tuning polymeric network to elicit control over stem cell fate
Justin Cooper-White	Oral	Electrospun PCL/aPLA-co-TMC: a promising material for tissue engineering
Justin Cooper-White	Oral	Probing effectors of stem cell and niche ageing for targeted rejuvenation
Justin Cooper-White	Oral	HTP Optimisation of Differentiation from Human Pluripotent Stem Cell Differentiation to Kidney Lineages Using Microbioreactor Arrays
Duncan Crombie	Invited	Establishing an automated culture system for large scale iPSC generation and disease modelling
Aude Dorison	Poster	Unravelling cardiac PDGFRa+ cell fate in diseased mammalian hearts using single cell RNA-Seq
Mirella Dottori	Oral	In vitro and in vivo characterization of dorsal root ganglia sensory neurons derived from human pluripotent stem cells
Mirella Dottori	Oral	Phenotypic and functional characterization of sensory neurons derived from human pluripotent stem cells
Andrew Elefanty	Oral	Generation of definitive Haemogenic endothelium from PSCs in vitro
Andrew Elefanty	Oral	HOXA+ Definitive Haemogenic endothelium from PSCs in vitro
David Elliott	Invited	Pluripotent stem cell models of human heart disease and development
Nona Farbehi	Oral	Single cell RNA-seq Analysis of the cardiac PDGFRa+ cells reveals novel populations through homeostasis and disease
Nona Farbehi	Poster	Single cell transcriptomic analysis of cardiac PDGFRa+ cells reveals novel populations in healthy and diseased hearts
Nona Farbehi	Poster	High throughput single cell RNA-Seq of cardiac total interstitial cells reveals novel populations in healthy and diseased heart
Hananeh Fonoudi	Oral	Investigating Early Cardiac Development in Patients with Hypoplastic Left Heart Using Induced Pluripotent Stem Cells
Laura Galvis	Poster	Elucidating the role of FGFR-4 in skeletal muscle homeostasis and regeneration

Conference	Location
ANZSCDB NSW Cell and Developmental Biology Meeting	Sydney, Australia
Joint scientific meeting of the Australian Society for Stem Cell Research (ASSCR) and the Australasian Gene and Cell Therapy Society (AGCTS)	Sydney, Australia
NHLBI Symposium on Cardiovascular Regenerative Medicine, National Institute of Health	Bethesda, USA
ANZSCDB NSW Cell and Developmental Biology Meeting	Sydney, Australia
Gordon Research Conference - Cell biology of megakaryocytes and platelets	Tuscany, Italy
14th International meeting on Neural Transplantation and Repair	Port Douglas, Australia
ComBio 2017	
Australasian Neuroscience Society 37th Annual Scientific Meeting	Sydney, Australia
Joint scientific meeting of the Australian Society for Stem Cell Research (ASSCR) and the Australasian Gene and Cell Therapy Society (AGCTS)	Sydney, Australia
Joint scientific meeting of the Australian Society for Stem Cell Research (ASSCR) and the Australasian Gene and Cell Therapy Society (AGCTS)	Sydney, Australia
8th Australia and New Zealand Nano-Microfluidics Symposium	Hobart, Australia
6th Asian Biomaterials Conference	Trivandrum, India
Australia-China Joint Conference on Tissue Engineering and Regenerative Medicine	Nanjing, China
High Polymer Research Group Meeting	Manchester, UK
International Conference on BioNano Innovation	Brisbane, Australia
RACI World Congress	Melbourne, Australia
Australasian Society for Biomaterials and Tissue Engineering (ASBTE) Annual Meeting	Canberra, Australia
Cold Spring Harbour China Stem Cells, Ageing and Regeneration Conference	Suzhou, China
Biomedical Engineering Society (USA) Annual Meeting	Phoenix, USA
International Society for Stem Cell Research (ISSCR) Annual Meeting	Boston, USA
Sydney Cardiovascular Symposium	Sydney, Australia
14th International meeting on Neural Transplantation and Repair	Port Douglas, Australia
International Ataxia Research Conference	Pisa, Italy
Les Treilles Symposium on hemogenic endothelium and hematopoietic production	Tourtour, France
International Society for Experimental Haematology	Frankfurt, Germany
ComBio 2017	Adelaide, Australia
Australasian Genomic Technologies Association Conference (AGTA)	Hobart, Australia
Joint scientific meeting of the Australian Society for Stem Cell Research (ASSCR) and the Australasian Gene and Cell Therapy Society (AGCTS)	Sydney, Australia
Sydney Cardiovascular Symposium	Sydney, Australia
Joint scientific meeting of the Australian Society for Stem Cell Research (ASSCR) and the Australasian Gene and Cell Therapy Society (AGCTS)	Sydney, Australia
Comparative Biology of Tissue Regeneration and Aging Symposium	Bar Harbor, Maine, USA

Attendee/Presenter name	Type of presentation	Presentation Title
Carlos Gantner	Invited	Tracking and promoting plasticity of hESC-derived dopaminergic neurons in the Parkinsonian brain
Nick Glass	Oral	Next Generation Biomicrodevices for HTP Screening Applications in Developmental Biology and Regenerative Medicine
Peter Gray	Invited	Characterisation and Optimisation of the Nanobridge System for hESC Suspension Cultivation
Natalie Groves	Oral	TrkB but not p75 regulates neural precursor cell quiescence in the adult hippocampus
Alexandra Grubman	Invited	Diverse Microglia in Alzheimer's disease
Richard Harvey	Invited	Cardiac mesenchymal stem cell biology and heart repair
Richard Harvey	Invited	Transcriptional targets and off-targets in congenital heart disease
Richard Harvey	Invited	New windows into mammalian cardiac repair
Shen Heazlewood	Poster	CD41/CD61bright high ploidy megakaryocytes are critical for platelet production
Shen Heazlewood	Poster	Mouse model without CD41Bright high ploidy megakaryocytes results in severe thrombocytopenia
Damián Hernández	Poster	Modelling Alzheimer's disease using human cortical cerebral organoids
Robin Hobbs	Invited	Mechanisms regulating germline stem cell regenerative potential and function
Robin Hobbs	Oral	Regulation of germline stem cell activity by the transcription factor SALL4
James Hudson	Invited	3D cardiac organoids
Cameron Hunt	Invited	Generation and tracking human ESC-derived motor neurons in vivo
Dhanisha Jhaveri	Oral	Regulation and contribution of distinct neurogenic precursors in the adult mouse brain
Trevor Kilpatrick	Plenary	Interrogation of the pathogenesis of progressive MS for therapeutic benefit
Trevor Kilpatrick	Invited	Role of MERTK in demyelinating disease
Mai La	Poster	Characterising the role of TSC22D3 in Germline Stem Cell Function
Andrew Laslett	Invited	New monoclonal antibodies to defined cell surface proteins on human pluripotent stem cells.
Andrew Laslett	Invited	Harnessing Pluripotency: Novel Tools for Human Stem Cell Biology.
Andrew Laslett	Online	New monoclonal antibodies to defined cell surface proteins on human pluripotent stem cells.
Loan Le	Oral	Telomerase Reverse Transcriptase Over-Expression enhances Human Cardiac Progenitor Cell Cardiac Regeneration after Myocardial Infarction
Julien Legrand	Poster	Role of the mTORC1 Inhibitor REDD1 in Germline Stem Cell Maintenance and Function
Ana Rita Leitoguinho	Poster	The role for the VENTX homeobox gene during human primordial germ cell (hPGC) development
Jingjing Li	Oral	Lab-on-a-chip simulation of embryonic blood flow to study the mechanobiology of endothelial to haematopoietic transition
Jingjing Li	Oral	Lab-on-a-chip simulation of embryonic blood flow to study the mechanobiology of endothelial to haematopoietic transition
Juan Li	Oral	One step micro-moulding technology for the integration of complex 3D structures in microfluidic devices
Grace Lidgerwood	Invited	Modelling neurodegeneration using patient induced pluripotent stem cells
Grace Lidgerwood	Poster	The role of lysophosphatidic acid (LPA) and in the maintenance of the blood retina barrier and photoreceptor function
Melissa Litte	Plenary	From Embryogenesis to Kidney Engineering
Melissa Litte	Invited	Kidney Organoids in Modelling Heritable Kidney Disease
Melissa Litte	Invited	Directing Stem Cells to Kidney: From Development to Regeneration
Melissa Litte	Plenary	Rebuilding a kidney from patient stem cells: what will the future look like?
Melissa Litte	Keynote	Challenges in kidney regeneration: From kidney development to organoids and the bioengineered kidney
Melissa Litte	Plenary	Directing pluripotent stem cells to kidney: an exemplar of the future of stem cell medicine

Conference	Location
14th International Meeting for Neural Transplantation & Repair	Port Douglas, Australia
International Conference on BioNano Innovation	Brisbane, Australia
Engineering Conferences International (ECI) "Scale-up and manufacturing of cell based therapies V"	San Diego, USA
14th International meeting on Neural Transplantation and Repair	Port Douglas, Australia
Obergurgl Optic Nerve Meeting	Obergurgl, Austria
National Institutes of Health 7th NHLBI Cardiovascular Regeneration Medicine Symposium	Maryland, USA
Keystone Conference, Keystone Resort, Keystone	Colorado, USA
International Society for Stem Cell Research (ISSCR) Annual Meeting	Boston, USA
International Society for Experimental Hematology (ISEH)	Frankfurt, Germany
Joint scientific meeting of the Australian Society for Stem Cell Research (ASSCR) and the Australasian Gene and Cell Therapy Society (AGCTS)	Sydney, Australia
The Alzheimer's Association International Conference 2017	London, UK
Combio2017	Adelaide, Australia
Gordon Research Conference, Germinal Stem Cell Biology	Hong Kong, China
CZANZ as part of Cardiovascular Genetics Council symposium	Perth, Australia
14th International Meeting for Neural Transplantation & Repair	Port Douglas, Australia
Australasian Neuroscience Society 37th Annual Scientific Meeting	Sydney, Australia
The Chang'an ICHS and the 6th ABRC	Xi'an, China
2017 ISN-ESN Meeting	Paris, France
Gordon Research Conference, Germinal Stem Cell Biology	Hong Kong, China
International Society for Stem Cell Research (Innovation Showcase)	Boston, USA
Australia. Brazil. Chile. Regenerative Medicine and Developmental Biology Symposium Series (the ABC Symposia)	Melbourne, Australia
Thermo Fisher Scientific, 24 hours of Stem Cells Virtual Event.	Online Event
Cardiac Society of Australia and New Zealand Annual Scientific meeting	Perth, Australia
Gordon Research Conference, Germinal Stem Cell Biology	Hong Kong, China
Joint scientific meeting of the Australian Society for Stem Cell Research (ASSCR) and the Australasian Gene and Cell Therapy Society (AGCTS)	Sydney, Australia
Joint scientific meeting of the Australian Society for Stem Cell Research (ASSCR) and the Australasian Gene and Cell Therapy Society (AGCTS)	Sydney, Australia
Australia New Zealand Nanomicrofluidics Symposium	Hobart, Australia
International Conference on BioNano Innovation	Brisbane, Australia
Institut du Cerveau et de la Moelle Epinière-UniMelb/Florey workshop	Paris, France
2017 Biennial Meeting of the International Society of Neurochemistry (ISN)	Paris, France
World Congress of Nephrology	Mexico City, Mexico
International Society for Stem Cell Research (ISSCR) Annual Meeting	Boston, USA
International Society for Developmental Biology	Singapore
50th Anniversary Meeting of the European Society of Paediatric Nephrology	Glasgow, Scotland
STELLAR Symposium	Leiden, Holland
International Conference on BioNano Innovation	Brisbane, Australia

Attendee/Presenter name	Type of presentation	Presentation Title
Melissa Litte	Invited	Regulation of Progenitor Cells in Kidney Organoids
Melissa Litte	Invited	Generating human kidney organoids from pluripotent stem cells
Ethan Liu	Oral	Characterisation of distinct states of human naive pluripotency generated by reprogramming identifies KLF4 as a conduit for primed to naive conversion
Ethan Liu	Poster	Characterisation of distinct states of human naive pluripotency generated by reprogramming identifies KLF4 as a conduit for primed to naive conversion
Christophe Marcelle	Invited	A novel role for TGF β signaling in regulating muscle cell fusion
Christophe Marcelle	Invited	A Bird's Eye View on Muscle Cell Fusion
Cristiana Mattei	Oral	Generation of inner ear organoids enriched with mechanosensitive vestibular hair cells derived from human Pluripotent Stem Cells
Tobias Merson	Poster	Ablation of NG2 glia in the CNS induces anxiety-like behaviour in adult mice
Tobias Merson	Poster	Ablation of NG2 glia in the CNS induces anxiety-like behaviour in adult mice
Kaveh Moradi	Poster	Infusion of growth factors into the demyelinated brain modulates the regeneration of oligodendrocytes from neural progenitor cells
Rowland Mosbergen	Oral	The Stemformatics Virtual Lab: More than genomic data visualisation in the cloud
Rowland Mosbergen	Poster	Stemformatics: Lessons from hosting web-based transcriptomic visualisations
Ali Motazedian	Poster	"Stromal free" T-cell development from pluripotent stem cells
Megan Munsie	Invited	Evolving landscape: rise of autologous 'stem cell' treatments
Megan Munsie	Invited	What is 'trust' in digitally mediated healthcare: exploring the experiences of patients and carers who contemplate stem cell treatments
Megan Munsie	Oral	Pathways to stem cell 'treatments': An analysis of experiences of people with spinal cord injury
Monica Nafria I Fedi	Poster	Modelling Acute Myeloid Leukaemia in human embryonic stem cell-derived haematopoietic cells
Amy Nicks	Poster	Cardiomyocyte maturation is regulated by dynamic expression of mRNAs-lncRNAs-miRNAs
Christian Nefzger	Keynote	Metabolic and epigenetic changes underlie the functional decline of intestinal stem cells with ageing
Susie Nilsson	Plenary	Optimising a mobilised blood cell product
Susie Nilsson	Invited	The use of a small molecule to rapidly mobilise stem cells for transplantation
Susie Nilsson	Plenary	The clinical application of our improved understanding of the bone marrow niche
Robert Nordon	Invited	Understanding stem cell fate through live cell imaging and single cell gene expression analysis
Robert Nordon	Oral	Understanding stem cell fate through live cell imaging and single cell gene expression analysis
Dmitry Ovchinnikov	Oral	Manipulation of the APP levels using CRISPR/Cas9-based technologies in a Down syndrome iPSC-based in vitro neurogenesis model reveals its substantial contribution to Alzheimer disease-like neuropathology
Harish Padmanabhan	Oral	Activating canonical Wnt and BMP pathways for enhanced osteogenic differentiation and maturation of human mesenchymal stem cells
Clare Parish	Invited	Stem cells and biomaterials for brain repair
Clare Parish	Plenary	Tracking and promoting plasticity of hESC-derived dopaminergic neurons in the Parkinsonian brain
Ralph Patrick	Poster	Resolving cardiac stromal-cell diversification through single-cell transcription profiling
Alice Pebay	Invited	IPSC for disease modelling
Alice Pebay	Plenary	IPSC for disease modelling
Alice Pebay	Invited	IPSC for disease modelling
Alice Pebay	Invited	IPSC for disease modelling
Alice Pebay	Invited	IPSC for disease modelling

Conference	Location
American Society for Nephrology	New Orleans, USA
ComBio2017	Adelaide, Australia
International Society for Stem Cell Research (ISSCR) International Symposia	Guangdong, China
International Society for Stem Cell Research (ISSCR) Annual Meeting	Boston, USA
2nd joint SFBD / SBCF Meeting	Lyon, France
Gordon Research Conference on Myogenesis	Il Ciocco, Italy
14th International meeting on Neural Transplantation and Repair	Port Douglas, Australia
2017 Biennial Meeting of the International Society of Neurochemistry (ISN)	Paris, France
13th Biennial ISN Satellite Meeting on Myelin Biology 2017	Ile des Embiez, France
Australasian Neuroscience Society 37th Annual Scientific Meeting	Sydney, Australia
eResearch 2017	Brisbane, Australia
8th international meeting on Visualizing Biological Data (VizBi 2017)	Sydney, Australia
Joint scientific meeting of the Australian Society for Stem Cell Research (ASSCR) and the Australasian Gene and Cell Therapy Society (AGCTS)	Sydney, Australia
Encouraging Responsible Innovation with Autologous Stem Cells Roundtable, Centre for Biomedical Ethics, Yong Loo Lin School of Medicine, National University of Singapore	Singapore
Brocher Foundation Workshop - Citizens' use of digital media to connect with healthcare: exploring the socio-ethical implications	Geneva, Switzerland
International Society for Stem Cell Research (ISSCR) Annual Meeting	Boston, USA
Joint scientific meeting of the Australian Society for Stem Cell Research (ASSCR) and the Australasian Gene and Cell Therapy Society (AGCTS)	Sydney, Australia
Sydney Cardiovascular Symposium	Sydney, Australia
International Conference on BioNano Innovation	Brisbane, Australia
Joint scientific meeting of the Australian Society for Stem Cell Research (ASSCR) and the Australasian Gene and Cell Therapy Society (AGCTS)	Sydney, Australia
International Conference on BioNano Innovation	Brisbane, Australia
2nd Cambridge-Oxford-Sunway Biomedical Symposium	Kuala Lumpur, Malaysia
World Congress of Biomedical Engineering	Xi'an, China
9th International Nanomedicine Conference	Sydney, Australia
Joint scientific meeting of the Australian Society for Stem Cell Research (ASSCR) and the Australasian Gene and Cell Therapy Society (AGCTS)	Sydney, Australia
International Conference on BioNano Innovation	Brisbane, Australia
Joint scientific meeting of the Australian Society for Stem Cell Research (ASSCR) and the Australasian Gene and Cell Therapy Society (AGCTS)	Sydney, Australia
Network of European CNS Transplantation and Repair conference	Dublin, Ireland
Sydney Cardiovascular Symposium	Sydney, Australia
World Glaucoma	Helsinki, Finland
5th Optic nerve Conference	Obergurgl, Austria
Australasian Genomic Technologies Association	Hobart, Australia
Asia Pacific Academy of Ophthalmology Meeting	Singapore
Asia-ARVO	Brisbane, Australia

Attendee/Presenter name	Type of presentation	Presentation Title	
Alice Pebay	Invited	IPSC for disease modelling (or similar)	
Jose Polo	Invited	Transient and permanent reconfiguration of chromatin and transcription factor occupancy drive reprogramming	
Jose Polo	Invited	Exploring the boundaries of transcription factor-mediated reprogramming	
Enzo Porrello	Plenary	Re-activating the neonatal proliferative network for heart regeneration.	
Enzo Porrello	Invited	Insights into epigenetics and the regenerating heart	
Nadia Rosenthal	Plenary	Of Mice and CRISPR	
Nadia Rosenthal	Plenary	Immune control of regeneration	
Nadia Rosenthal	Plenary	Macrophages in regeneration	
Nadia Rosenthal	Keynote	New strategies for accelerating cardiac regeneration	
Evangelyn Sim	Oral	The accessible chromatin landscape of murine and human cardiomyocyte development	
Julian Stolper	Oral	Post-embryonic growth and fate restriction of stem cells in vivo	
Samir Taoudi	Invited	Prenatal platelet formation	
Leon Teo	Oral	Reactivating Infant Scarring Pathways to Attenuate Glial Scarring and Improve Functional Sparing after Stroke in Adults	
Jane Visvader	Oral	Unmasking heterogeneity with the adult mammary stem cell compartment	
Jane Visvader	Keynote	Mapping stem and progenitor cells to decipher the origins of breast cancer	
Serena Viventi	Oral	Functional sensory neurons from human pluripotent stem cells for treating peripheral neuropathies	
Serena Viventi	Poster	Transplantation of sensory neurons derived from Friedreich Ataxia induced pluripotent stem cells into dorsal root ganglia regions	
Celine Vivien	Poster	Role of lymphangiogenesis in zebrafish cardiac regeneration	
Holly Voges	Oral	Interactions between endothelial cells and cardiomyocytes regulate human cardiac organoid functionality	
Holly Voges	Poster	Development of a Human Cardiac Organoid Injury Model Reveals Innate Regenerative Potential	
Christine Wells	Invited	The systems biology of stem cells	
Ernst Wolvetang	Invited	Riding the neural crest omics style	
Ernst Wolvetang	Invited	Down syndrome iPSC as an ageing model	
Ernst Wolvetang	Invited	Down syndrome iPSC derived neurons and brain organoids to study the functional genomics of brain ageing	
Ernst Wolvetang	Keynote	Human induced pluripotent cells as platform for functional neuro-genomics	
Ernst Wolvetang	Invited	Human induced pluripotent cells as tools to study neurological diseases	
Lulu Xing	Oral	Neural precursor Cells contribute to regeneration of oligodendrocyte progenitor cells after pharmacogenetic ablation in the adult mouse brain	

Conference	Location
ComBio2017	Adelaide, Australia
International Society for Stem Cell Research (ISSCR) Asia Regional Meeting	Guangzhou, China
14th International meeting on Neural Transplantation and Repair	Port Douglas, Australia
Joint scientific meeting of the Australian Society for Stem Cell Research (ASSCR) and the Australasian Gene and Cell Therapy Society (AGCTS)	Sydney, Australia
Cardiac Society of Australia and New Zealand/International Society for Heart Research (CSANZ/ISHR)	Perth, Australia
Infrafrontier conference	Athens, Greece
International Society for Stem Cell Research (ISSCR) Annual Meeting	Boston, MA, USA
Gordon Research Conference on Atherosclerosis	New Hampshire, USA
Nature Regeneration conference	Milan, Italy
Cardiac Society of Australia and New Zealand/International Society for Heart Research (CSANZ/ISHR)	Perth, Australia
Maintenance and Differentiation of Stem Cells in Development and Disease	Heidelberg German
Gordon Research Conference - Cell biology of megakaryocytes and platelets	Tuscany, Italy
Australasian Neuroscience Society 37th Annual Scientific Meeting	Sydney, Australia
American Association for Cancer Research (AACR) Annual Meeting	Washington, D.C., USA
AACR Advances in Breast Cancer Research	Los Angeles, USA
14th International meeting on Neural Transplantation and Repair	Port Douglas, Australia
10th Annual Friedreich's Ataxia Symposium	Philadelphia, USA
Cardiac Society of Australia and New Zealand/International Society for Heart Research (CSANZ/ISHR)	Perth, Australia
International Postgraduate Symposium in Biomedical Science	Brisbane, Australia
International Society of Stem Cell Research (ISSCR) Annual Meeting	Boston, USA
Joint scientific meeting of the Australian Society for Stem Cell Research (ASSCR) and the Australasian Gene and Cell Therapy Society (AGCTS)	Sydney, Australia
5th Annual Single Cell Analysis Asia Congress	Singapore
The Ageing Cell Conference	Cambridge Babraham Research Campus, UK
Coldspring harbour Ageing conference	Suzhou, China
International Conference on BioNano Innovation	Brisbane, Australia
14th International meeting on Neural Transplantation and Repair	Port Douglas, Australia
Australasian Neuroscience Society 37th Annual Scientific Meeting	Sydney, Australia

International Collaborations and Visitors

International Collaborations

SCA Researcher	Collaborator	Collaborating Centre
James Bourne (ARMI, Monash)	Professor Stephen Strittmatter	Yale School of Medicine, USA
Justin Cooper-White (AIBN, UQ)	Professor Kristy Anseth	University of Colorado Bolder, USA
Mirella Dottori (UoM & UoW)	Dr Kristina Thayer and Dr Andrew Rooney	National Institute of Environmental Health Science, National Toxixology Program, USA
Mirella Dottori (UoM,UoW)	Dr Mathew Coleman	University of Birmingham, UK
Dave Elliott (MCRI)	Professor Christing Mummery	Leiden University Medical Centre, Netherlands
Dave Elliott (MCRI)	Assistant Professor Paul Burridge	Northwestern University, USA
David Gardner (UoM)	Professor Steve Dalton	University of Georgia, USA
Robert Graham (VCCRI)	Professor Ahsan Husain	Emory University, USA
Robert Graham (VCCRI)	Assistant Professor Nawazish Naqi	Emory University, USA
Robert Graham (VCCRI)	Professor Stephen Vatner	Rutgers University, USA
Richard Harvey (VCCRI)	Dr Jyotsna Dhawan, Dr Rakesh Mishra, Dr Surabhi Srivastava	Centre for Cellular and Molecular Biology, India
Richard Harvey (VCCRI)	Associate Professor Jose Luis de la Pompa	Centro Nacional de Investigaciones Cardiovasculares Carlos III (CNIC), Madrid
Richard Harvey (VCCRI)	Professor Eldad Tzahor, Alla Aharonov, Dr Gabriele D'Uva	Weizmann Institute of Science, Israel
Richard Harvey (VCCRI)	Professor Bin Zhou	Albert Einstein College of Medicine, USA
Richard Harvey (VCCRI)	Professor Ralf Adams	Max Planck Institute for Molecular Biomedicine, Germany
Richard Harvey (VCCRI)	Professor Weinian Shou	Indiana University, USA
Richard Harvey (VCCRI)	Dr Florian Leuschner	University of Heidelberg, Germany
Richard Harvey (VCCRI)	Professor Howard Chang, Professor Eric Kool	Stanford University, USA
Richard Harvey (VCCRI)	Professor Nenad Bersac	Duke University, USA
Richard Harvey (VCCRI)	Professor Toren Finkel	University of Pittsburgh, USA
Robin Hobbs (ARMI, Monash)	Dr Frances Fuller-Pace	University of Dundee, UK
Robin Hobbs (ARMI, Monash)	Professor Tin-Lap Lee	Chinese University of Hong Kong, China
James Hudson (UQ)	Dr Qing-Dong Wang	AstraZeneca, Sweden
James Hudson (UQ)	Dr Jason O'Rourke	Conrad Prebys Center for Chemical Genomics, USA
Trevor Kilpatrick (The Florey)	Professor Bernard Zalc	ICM Salpêtrière, France
Trevor Kilpatrick (The Florey)	Dr Jack Antel	Montreal Neurological Institute, Canada
Trevor Kilpatrick (The Florey)	Professor Stephen Frye	University of North Carolina, USA
Melissa Little (MCRI)	Professor Anton Rabelink	Leiden University, Netherlands
Melissa Little (MCRI)	Professor Sanjay Jain	Washington University, USA
Melissa Little (MCRI)	Professor Ben Humphreys	Washinton University, USA
Melissa Little (MCRI)	Professor Roos Maasereuw	Utrecht University, Netherlands
Christophe Marcelle (ARMI, Monash)	Dr Michael Sieweke	Center for Immunology Marseille Luminy, France
Christophe Marcelle (ARMI, Monash)	Professor Nadia Rosenthal	The Jackson Laboratory, USA
Toby Merson (ARMI, Monash)	Dr Ben Emery	Oregon Health and Science University, USA
Megan Munsie (UoM)	Dr Jan Barfoot	EuroStemCell, MRC Centre for Regenerative Medicine, University of Edinburgh, UK

SCA Researcher	Collaborator	Collaborating Centre
Megan Munsie (UoM)	Professor Clare Blackburn	EuroStemCell, MRC Centre for Regenerative Medicine, University of Edinburgh, UK
Megan Munsie (UoM)	Assistant Professor Amy Zarzeczny	University of Regina, Saskatchewan, Canada
Megan Munsie (UoM)	Assistant Professor Tamra Lysaght	Centre for Biomedical Ethics, National University of Singapore, Singapore
Nathan Palpant (IMB, UQ)	Professor Ziv Bar-Joseph	Carnegie Mellon University, USA
Nathan Palpant (IMB, UQ)	Professor Hannele Ruohola-Baker	University of Washington, USA
Alice Pebay (UoM, CERA)	Assistant Professor Dr Ruchira Singh	University of Rochester, USA
Alice Pebay (UoM, CERA)	Professor Alison M. Goate	Icahn School of Medicine at Mount Sinai, USA
Alice Pebay (UoM, CERA)	Assistant Professor Celeste Karch	Washington University School of Medicine, USA
Alice Pebay (UoM, CERA)	Professor Donald Zalk	John Hopkins Medicine, USA
Jose Polo (ARMI, Monash)	Professor Amander Clark	UCLA Molecular Biology Institute, USA
Enzo Porrello (MCRI)	Dr Mei Xin	Cincinnati Children's Hospital, USA
Enzo Porrello (MCRI)	Dr Qing-Dong Wang, Dr Alleyn Plowright, Dr Lauren Drowley	AstraZeneca, Sweden
Mirana Ramialison (ARMI, Monash)	Dr Lázaro Centanin	Centre for Organismal Studies, University of Heidelberg, Germany
Nadia Rosenthal (JAX)	Dr Cathleen Lutz	The Jackson Laboratory, USA
Nadia Rosenthal (JAX)	Professor Michael Schneider, Professor Sian Harding	Imperial College London
Nadia Rosenthal (JAX)	Professor Tony Wyss Coray	Stanford University, USA
Nadia Rosenthal (JAX)	Professor Stefanie Dimmeler	University of Frankfurt, Germany
Brandon Wainwright (IMB, UQ)	Professor Alexander van Oudenarden	Hubrecht Institute, Netherlands
Brandon Wainwright (IMB, UQ)	Dr James Olson	Fred Hutchinson Cancer Research Center, USA

International Visitors

Visitor	Affiliation
Professor Deepak Srivastava	Director of the Roddenberry Stem Cell Center, Gladstone Institute of Cardiovascular Disease; University of California, USA
Professor James F Martin	Vivian L. Smith Chair in Regenerative Medicine, Baylor College of Medicine, USA
Dr Alleyn Plowright	Head, Integrated Drug Discovery, Sanofi, Germany
Dr Jack Antel	Montreal Neurological Institute and Hospital, Canada
Professor Anton Rabelink	Leiden University, Netherlands
Dr Jitske Jansen	Utrecht University, Netherlands
Professor Christopher Scott	Queen's University, UK
Professor Elisabetta Dejana	IFOM, Italy
Professor Amander Clark	UCLA Molecular Biology Institute, USA
Professor Elizabeth Blackburn	Salk Institute, USA
Associate Professor Xianmin Zeng	Buck Institute, USA
Professor Gerald de Haan	Scientific Director, European Research Institute for the Biology of Ageing, Netherlands
Professor Joseph Wu	Stanford Cardiovascular Institute

Outreach Events

Event	Name of SCA Participant(s)	Where
2018 Australian of the Year Awards	Perry Bartlett	Customs House, Brisbane
Qld Advancing Health Research 2026	Perry Bartlett	Gold Coast Exhibition Centre, Gold Coast
Qld Premier's Innovation Awards	Perry Bartlett	Customs House, Brisbane
Australia and New Zealand Laboratory Animal Association meeting	James Bourne	Novotel, St. Kilda, Melbourne
Robotronica 2017	Justin Cooper-White	QUT Garden Point, Brisbane
Centre for Eye Research Australia's Stem Cell Information Forum	Duncan Crombie, Megan Munsie, Alice Pebay & Matthew Rutar	Royal Australasian College of Surgeons, Melbourne
The University High School Induction Day	Duncan Crombie	The University High School
Melbourne Knowledge Week - Growing Organs in a dish: From Science fiction to reality	Mirella Dottori & Jess Vanslambrouck	Ian Potter Auditorium, KMB, University of Melbourne
Melbourne Knowledge Week, public talk on Brain Organoids	Mirella Dottori	Melbourne Brain Centre, Parkville
Melbourne Knowledge Week, public talk on Organoids	Mirella Dottori	GTAC, Parkville
Stem cell research for replacement therapies and disease modelling - A program for VCE Biology students	Mirella Dottori & Jennifer Hollands	GTAC, Parkville
Victorian Brain Bee Competition	Mirella Dottori	Melbourne Brain Centre, Parkville
Dad's of Melbourne Lunch	David Elliott	Melbourne, Australia
Gene Technology Access Centre Teacher Professional Learning Day - Reproductive Technologies & Stem Cells	David Gardner, Alex Harvey, Rita Leitoguinho & Megan Munsie	GTAC, Parkville, VIC
2nd Annual Sydney SCADaddle for Research	Robert Graham & Amy Nicks	Leichardt Park, Sydney
SCAD information evening	Robert Graham & Siiri Iismaa	VCCRI, Sydney
MCRI and KidGen: Meet the Scientists	Lorna Hale, Sara Howden & Melissa Little	MCRI, Melbourne
ASSCR public event: "Clinical Trials - The Good, the Bad and the Ugly"	Richard Harvey	Victor Chang Cardiac Research Institute, Sydney
Nerd Nite Melbourne Event	Damián Hernández	Mr Wow's Emporium, Fitzroy
Brisbane State High, Special Presentation	James Hudson	Brisbane State High, Brisbane
Thank You- QBI VIP donors	Dhanisha Jhaveri	St Lucia Golf Links, Brisbane
UQ Alumni	Dhanisha Jhaveri	QBI, UQ
CERA Bequest Event	Grace Lidgerwood	CERA, Melbourne
Lecture, U3A event (University of the Third Age)	Grace Lidgerwood	Melbourne
Meet the scientists event	Melissa Little	Royal Childrens Hospital, Melbourne
Rotary Dinner - "Kiss Goodbye to MS"	Tobias Merson	Fredricks 980 Mt Alexander Rd Essendon

Event	Name of SCA Participant(s)	Where
Emmanuel Centre for the study of Science, Religion, and Society public forum	Megan Munsie & Nathan Palpant	University of Queensland, Brisbane
Mordi Skeptics	Megan Munsie	Mordialloc, Victoria
Mount Scopus Memorial College Shiluv Conference	Megan Munsie	Monash, Caulfield
MOVE Koadlow Public Lecture: Stem cells and muscle, bone and joint health - Hope, hype and reality	Megan Munsie	State Library of Victoria, Melbourne
Royal Children's Hospital Alumni	Megan Munsie	Parkville, Victoria
St Leonards College, VCE Students	Megan Munsie	Brighton, Victoria
Stem Cell Therapy	Megan Munsie	The GP Show Podcast, Australia
Ask the doctor	Shalin Naik	Television series (ABC)
Single Cell Techniques Workshop	Shalin Naik	Walter and Eliza Hall Institute, Melbourne
Health Matters: University of Queensland Faculty of Medicine Lecture Series	Nathan Palpant	University of Queensland, Brisbane
Eltham Parkinson's Support Group seminar	Clare Parish	Nillumbik Health, Eltham
Bastille Day, Invited Conference	Alice Pebay	Melbourne, Victoria
Announcement for the Victorian Government funded new Victorian Heart Hospital	Mirana Ramialison	ARMI, Monash University
The No-Bell Prize	Christine Wells	Ian Potter Auditorium, KMB, University of Melbourne

Media Coverage

Press Releases

Title	Release Date
New leadership appointments to Stem Cells Australia initiative	30-Jan
Re-enacting the crime: funding boost for type 1 diabetes research	15-Feb
Organovo Collaborates with Professor Melissa Little for Kidney Tissue Research	25-Feb
Ground-breaking new study doubles the estimate of our functional genes	2-Mar
Hype versus hope: Melissa Little discusses the latest on organoids	27-Mar
Professor Melissa Little receives Science Academy's highest honour	22-May
Experts call for regulation of unproven stem cell treatments	6-Jul
New research aids understanding of how genes are regulated	22-Aug
KidGen Collaborative 'Meet the Scientists' evening	30-Aug
Federal Health Minister launches Australia's first 3D bioprinter printer	27-Sep
New Australian laws to regulate clinical use of stem cells	26-Oct
Positioning Australian stem cell research for the future	8-Nov
Australia joins world-first Human Cell Atlas effort	9-Nov
Suite of Monash papers shed light on decade-long stem cell mystery	9-Dec

Media Coverage

Title	Publication
The future of stem cells: tackling hype versus hope	The Conversation
Yes there's hope, but treating spinal injuries with stem cells is not a reality yet	The Conversation
What's the benefit in making human-animal hybrids?	The Conversation
The benefit of making human-animal hybrids	The Wire
Scientists Tapping into the Healing Power of Zebrafish	Nine News
Regulators need to protect stem cell promise	Cosmos Magazine
Comprehensive Atlas of Long Noncoding RNAs Yields Surprising New Role	Genetic Engineering & Biotechnology News
Doctors back unconventional treatment for Multiple Sclerosis	ABC 7.30 Report
Scientists create human heart muscle	The Courier Mail
Two UQ researchers and German colleagues have created a "beating" human heart muscle from stem cells.	ABC News and other media outlets
Self-repairing heart tissue breakthrough brings hope for cardiac patients	ABC News

Title	Publication
Gender equality's not brain surgery	The Courier Mail
How hope drives stem cell tourism	ABC Radio National: Life Matters
A trade in desperation: the rise of stem cell tourism	Pursuit
Stem cell tourism	ABC Melbourne Drive
Brain repair	ABC Radio National
Stem Cell Engineering	Qsceptics Brisbane
Private clinics' peddling of unproven stem cell treatments is unsafe and unethical	Business Insider
Private clinics' peddling of unproven stem cell treatments is unsafe and unethical	The Conversation
Experts warn against medical tourism for unproven stem cell treatments	Huffington Post
Stem cell therapies: medical experts call for strict international rules	The Guardian
US doctors treat man for rare genetic disorder by editing DNA in world first - Includes Australian expert advice.	ABC News and other media outlets
Adult brain's fear HQ can grow new cells	COSMOS
Brain discovery could lead to therapy for depression and PTSD	Sydney Morning Herald
Australian brain researchers' findings could lead to new treatments for depression and PTSD	News.com.au
Newborn babes at heart of life-saving research	The Australian
Qld researchers close to discovering how human heart can repair itself	Brisbane Times
3D printer is step towards making kidneys	Herald Sun
Researchers use 3D printer to build mini-kidneys	9 News
A 3D printer is being used to create models of human kidneys	7 News - Sydney
A Revolutionary 3D printer is giving hope to kidney transplant patients	Ten Eyewitness News
3D printer hope for transplants is a step closer	The Advertiser
Macrophages Are the Ultimate Multitaskers	The Scientist
Finally, unproven stem cell clinic practices might be curtailed	The Conversation
Tighter rules for stem cell clinics on the horizon	The Limbic
Human Cell Atlas: The plan to map every cell in your body	ABC News
Matter of life, death: Project to map all human cells	Herald Sun
US doctors treat man for rare genetic disorder by editing DNA in world first	ABC News
Stemming the tide	The Skeptic
Research papers shed light on decade-long stem cell mystery	Phys Org and other science news outlets
Kids to the rescue of stroke victims	Herald sun
Optimising exercise for cognitive function in older adults	ABC Radio
The Gift of Life	Channel 10

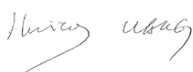
Finance

STEM CELLS AUSTRALIA FINANCIAL STATEMENT FOR CALENDAR YEAR JANUARY 2017 TO DECEMBER 2017

	<u>2017</u>	<u>Project to Date</u>
ARC Funds	3,557,348.64	21,844,619.32
Other Contributions	<u>1,442,192.10</u>	<u>11,673,159.70</u>
Total Income	4,999,540.74	33,517,779.02
Salaries and oncosts	3,020,222.31	18,479,025.38
Consumables and other costs	<u>1,899,211.82</u>	<u>12,710,204.67</u>
Total Expenses	4,919,434.13	31,189,230.05
Net Activity for the year	\$80,106.61	2,328,548.97
Carry over balance	2,248,442.36	
Balance as at Dec 2017	<u>2,328,548.97</u>	<u>2,328,548.97</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.



Huiting Wang
Research Accountant
Research Accounting Services

27-Mar-18

Date

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Abbreviations

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



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