I warmly welcome you to the 2017 HeartKids Grants-in-Aid Presentation. This is a special occasion as HeartKids marks the tenth anniversary of its Research Program. This milestone is even more significant given the historic decision to unite the HeartKids movement to create one national governing organisation.

HeartKids’ role in research dates back over 30 years when the first funding was provided to researchers to assist families impacted by congenital (childhood) heart disease (CHD). Since then tens of thousands of everyday Australians have volunteered their time to raise funds for HeartKids and today, we are fortunate to continue to benefit from the generosity of the public and corporate community.

I would like to thank The Pinnacle Charitable Foundation (formerly the Wilson HTM Foundation) for their considerable support in launching the national HeartKids Grants-in-Aid Program and for providing the seed funding necessary so that the program could flourish.

I would also like to acknowledge and thank The Kinghorn Foundation for their continued support of our research program and more importantly for underwriting the development and implementation of the first Australia and New Zealand Congenital Heart Disease Registry.

We celebrate the significant role the health and medical research community plays in making a difference in the lives of infants, children, young people and adults impacted with congenital heart disease.

On behalf of the HeartKids Board I congratulate each of the seven lead investigators and their respective research teams that are being presented with grants. We look forward to the translation of your research efforts into outcomes that benefit those with CHD.

Equally, thank you to the HeartKids Research Advisory Committee, led by Dr Lisa Selbie, for volunteering your time in reviewing the grants applications. They had a particularly difficult challenge as the total amount of funding this year was able to fund only one tenth of the total number of worthy applications, so there remains much to do.

Our contribution towards the advancement of scientific knowledge and improved treatments for Australians impacted by CHD is important and I encourage you to continue to support this important work.

Jan McClelland, AM
Chairperson
HeartKids Limited
I add my welcome to that of the HeartKids Chairperson, Ms Jan McClelland, and thank our valued community and corporate partners for their continued investment in the HeartKids Research Program. Thank you for joining with the HeartKids community in celebrating the tenth year anniversary of our Research Program.

Since 2007 HeartKids’ has invested over $3.5 million dollars in 44 research projects. These ‘seeded’ programs have subsequently attracted over $1.85 million in additional funding, multiplying HeartKids’ impact and investment. Our program has supported a wide range of research, including basic and clinical science as well as public health and health services research.

2017 continues the strategic evolution of the HeartKids Research Program. The Program’s two branches include the Grants-in-Aid program, and facilitation of the Congenital Heart Alliance Australia and New Zealand (CHAANZ) which has been brought together to implement a binational Congenital Heart Disease (CHD) Registry.

Once operational, the CHD Registry will provide cardiologists and researchers unprecedented access to de-identified clinical data in virtually real time, informing better treatments for Australians and New Zealanders.

Looking forward, as more funds become available, the Research Committee will be mapping out a Research Strategy, in consultation with clinicians, researchers, their institutions, government funding bodies such as the National Health and Medical Research Council (NHMRC) and the Medical Research Future Fund, to define a translational research agenda that is measurable in terms of impact and strategically assists researchers to collaborate with colleagues in Australia, New Zealand and globally.

Our long-term aim is to define those areas of CHD research in which Australian researchers are recognised as a global leader, aligning these programs with corporate and community partners to ensure the quickest transition of research to treatment outcomes that benefit Australians impacted by CHD. As the total funds available to researchers from government is capped, HeartKids will work hard to continue to attract additional investment to meet the ever-increasing demand for funding.

Finally, congratulations to each of the research projects funded in 2017. The Research Committee wishes you every success over the coming year as we seek improved treatments for Australians living with CHD, and their families.

Dr Lisa Selbie, Ph.D.
Chairperson
HeartKids Research Advisory Committee
Welcome Mary Jung
Pinnacle Charitable Foundation

Introduction Jan McClelland AM
Chairperson, HeartKids Limited

Award Presentations Dr Lisa Selbie
Chairperson, HeartKids Research Advisory Committee

Roll of Honour Award Presentation Jill Kinghorn
The Kinghorn Foundation

Vote of Thanks Mark Brooke
Chief Executive Officer
HeartKids Limited

Official Photographs

Formal proceedings will conclude at 7pm
Guests are then welcome to stay and enjoy the hospitality of our hosts Wilsons
Who we are
HeartKids is the only national charity dedicated to supporting infants, children, young adults and adults affected by childhood heart disease all across Australia.
We also fund life-saving research, provide information and advocate for these families’ needs.
Our support is a commitment for life, because there is no cure.

Our motivation
Childhood heart disease is an umbrella term that covers all heart defects present at birth (congenital) or acquired during childhood.
• Every day in Australia, 8 babies are born with a heart defect. That’s 3,000 babies each year.
• Childhood heart disease is the largest cause of death of Australian babies.
• Sadly, 4 lives are lost each week.
• There is no known cure.
• Previously healthy children can also develop acquired heart conditions such as rheumatic heart disease or cardiomyopathy.
• There are currently 32,000 Australian children living with childhood heart disease. Improved treatments and outcomes mean there are now over 32,000 adults living with childhood heart disease.
Our Work, Our Impact

People with childhood heart disease face unique challenges for their entire lives. This can include ongoing medical treatment, possibly repeated heart surgeries, and in rare cases a heart transplant. Their physical and emotional development may be delayed which impacts their capacity to live normal lives.

Support is critical at every stage of the journey. HeartKids is focused on improving the lives and futures of the 64,000 children, teens and adults living with childhood heart disease in Australia, and their families.

HeartKids’ work is outcome focused and demonstrates real impact for these families and for the community.

- High quality support services delivered via all major Australian children’s hospitals ensures that no family is alone during their greatest times of need
- Specialist peer support helps children reach their potential, enables teenagers to effectively transition to adult care and creates vital co-support networks for parents
- Outreach support reduces social isolation particularly in regional and remote areas and enables families to feel connected and supported within their community
- Financial support for parents in crisis enables them to focus their full attention on their child’s health
- Our information services empower families impacted by CHD to make informed decisions on their health care needs
- Bereavement and counselling services assist families through their most vulnerable times
- Advocacy campaigns address social inequity, allowing those impacted by CHD to fully participate in the community
- Our $3M research program improves long term health outcomes
- The ground-breaking Australian and New Zealand Congenital Heart Disease Registry driven by HeartKids will inform planning of health services and improve quality of life and survival rates

Our Values

- **Caring**: passionate about making a difference for heart kids and their families
- **Collaboration**: working together makes us stronger
- **Integrity**: working ethically, proactively and wisely
- **Hope**: inspired to achieve greater outcomes
- **Family**: our essence

Our Research Leadership

HeartKids is the only research funding body in Australia that specifically drives research into the causes, treatment and management of childhood heart disease (CHD).

2017 marks the 10th anniversary of HeartKids’ commitment to research. With the support of our sponsors and donors, HeartKids is proud to have committed over $3 million of funding for research projects looking to unlock the mysteries of childhood heart disease to date, via our two programs: Grants-in-Aid and Project Grants.

The Grants-in-Aid Program was established by HeartKids Australia in 2011 with the support of our Founding Partner, Wilson HTM Foundation (now Pinnacle Charitable Foundation). The program supports Australian research into congenital and acquired childhood heart disease.

Grants-in-Aid differ from our Research Projects Grants which are intended to support large research projects over a two or three year timeframe similar to research project funding schemes operated by the National Health and Medical Research Council (NHMRC). Grants-in-Aid are intended to fund smaller projects (minimum $20,000 and maximum of $50,000 inclusive of GST) with a shorter duration of twelve months maximum.

The grant application process is also simpler; the application forms shorter, the decision process faster and hence a less demanding process on the applicants. The Grants-in-Aid are intended to support and grow research capacity specifically directed to childhood heart disease (CHD).

**Funding streams**

There are three potential streams of funding

1. **Small Research Projects.** Funds may be sought for a small research project, to contribute to a larger (already mainly funded) project, to provide a seed funding for a new idea, to fund a pilot study or to assist with a small clinical trial.

2. **Building Research Infrastructure.** Funds may be sought for purchase of capital equipment needed for research or for building of or access to specialised infrastructure, e.g., bio banks, clinical registers, databases etc.

3. **Research Capacity Building.** Funds may be sought to assist research capacity building by providing access to special expertise to bolster research or providing research leadership development.

It is a requirement that a substantial part of any research funded by HeartKids be conducted in Australia. HeartKids has developed a peer-reviewed, transparent and efficient process to identify and allocate research funding. This ensures we obtain the best value from our funds and achieve the greatest impact for children affected by heart disease. We are assisted in this process by our Research Advisory Committee.
ACE inhibitor cessation in the setting of well-functioning Fontan hearts

Principle Investigator: Professor Yves d’Udekem
Institution: Murdoch Childrens Research Institute

Additional Investigators: Dr Rachael Cordina, Professor David Celermajer, Dr Tim Hornung, A/Prof Leeanne Grigg, Dr Karin du Plessis and Dr Julian Ayer.

Professor d’Udekem graduated as a surgeon in Belgium with overseas training in South Africa, Canada and the UK. In 2003 he completed his PhD and moved to Australia to work as consultant in the Royal Children’s Hospital and acquired Professorship of the University of Melbourne in 2016. He has currently two research focuses: the outcomes late after Fontan surgery and after aortic arch repair. Yves has founded the Australian and New Zealand Fontan Registry, the largest of its kind in the world. He has published 226 articles in international peer-reviewed journals. In the last five years he published 141 articles and obtained seven NHMRC grants (three as CIA, three as CI and one as AI) and eight grants from other sources.

Project Description
This will study the impact of angiotensin receptor inhibitors (ACEI) cessation in children and adults with a Fontan circulation and normal heart contraction. Many children born with a single cardiac pumping chamber undergo a Fontan operation. Due to concerns about potential late heart failure, many are prescribed ACEI although they have good heart function, possibly exposing them to unnecessary risk of adverse drug reactions and the important burden of lifelong medication. Evidence has shown ACEI are of benefit in a failing two-ventricle heart, but there is no literature to suggest they are of benefit in the Fontan circulation.
Clinical and genetic studies in children with Left Ventricular Noncompaction

**Principle Investigator:** Professor Chris Semsarian  
**Institution:** Centenary Institute  
**Additional Investigators:** A/Prof Robert Weintraub, Dr Richard Bagnall and Dr Jodie Ingles

Professor Semsarian is a cardiologist with a specific research focus in the genetic basis of cardiovascular disease. He trained at the University of Sydney, Royal Prince Alfred Hospital, and Harvard Medical School. A focus area of his research is in the investigation and prevention of sudden cardiac death in the young, particularly amongst children and young adults. Prof Semsarian has an established research program which is at the interface of basic science, clinical research and public health, with the ultimate goal to prevent the complications of genetic heart diseases in our community. He has published over 180 peer-reviewed scientific publications, in the highest-ranking cardiovascular and general medical journals. He has also been the primary supervisor of over thirty PhD, honours, and medical honours students since 2003, and is an active member of the mentoring program at the University of Sydney, particularly in supporting gender equality.

He has led major community programs in the area of prevention of sudden death, including having defibrillators in all public places including sporting grounds, as well as organised programs to teach CPR to all members of the community.

**Project Description**

Heart disease in children results in significant symptoms and can ultimately lead to heart failure and premature death. One form of heart disease in children relates to abnormalities in the structure and function of the heart muscle, so called “left ventricular noncompaction cardiomyopathy” (LVNC). This is a common cause of heart failure, particularly in young children, and is associated with a wide variety of manifestations and outcomes. Understanding the genetic basis of LVNC is important to facilitate more accurate and earlier diagnosis, and in helping to predict clinical outcomes in children with this cardiomyopathy type. The proposed study will use the latest genetic technologies to identify the causes of LVNC in children. The study will improve our knowledge of heart disease in children, and directly impact on how we diagnose and treat children and their families with inherited cardiomyopathies such as LVNC.

Mechanisms and predictors of cardiovascular risk in children following Kawasaki disease

**Principle Investigator:** Professor David Burgner  
**Institution:** Murdoch Children’s Research Institute  
**Additional Investigators:** Prof Nigel Curtis, A/Prof Michael Cheung and Dr Katherine Chen

David Burgner is a NHMRC Senior Research Fellow at Murdoch Childrens Research Institute and adjunct professor at Melbourne and Monash Universities. He is a paediatric infectious diseases specialist at Monash Children’s Hospital. He trained in the UK and Australia and did his PhD in Africa and at Oxford University. His research and clinical interest is in the infectious and inflammatory factors that influence the early development of the risk of cardiovascular disease. He is particularly interested in Kawasaki disease, the commonest cause of heart disease acquired in childhood and is recognised internationally for his expertise in this area. He is medical advisor to the Kawasaki Disease Foundation, an Australian parent-led support charity.

**Project Description**

Kawasaki disease, the most common cause of heart disease acquired in childhood, affects approximately 300 Australians annually. It is a life-threatening but poorly understood illness of preschool children that damages the coronary arteries in 25% of untreated cases. We have recruited children with previous Kawasaki disease and controls to investigate if they have an underlying ‘hardwired’ immune problem, and the long-term cardiovascular risk. This exciting study leverages our Kawasaki disease cohort and uses novel methods to address these important research questions. Our aim is to understand the mechanisms and long-term risks in Kawasaki disease, leading to new diagnostics and interventions.
Modelling CHD in a dish using IPS cells and massively parallel sequencing

**Principle Investigator:** Professor Richard P. Harvey, PhD FAA FAHMS FRS  
**Institution:** Victor Chang Cardiac Research Institute  
**Additional Investigators:** Dr Joshua Ho, Professor David Winlaw, Dr David Humphreys, Dr Peijie Lin, Dr Ralph Patrick and Ms Hananeh Fonoudi

Professor Richard Harvey received his PhD in 1982 from the University of Adelaide, training in molecular biology. He undertook postdoctoral studies in embryology at Harvard University with Doug Melton, and then moved to the Walter and Eliza Hall Institute in Melbourne, establishing an independent group. In 1998, he relocated to the Victor Chang Cardiac Research Institute, where he is currently Co-Deputy Director and Head of the Developmental and Stem Cell Biology Division. He holds the endowed Sir Peter Finley Professorship of Heart Research at the University of New South Wales. He is a Fellow of the Australian Academy of Science, The Royal Society of London and EMBO. His research focuses on the genetic basis of heart development, the pathological mechanisms underlying congenital heart disease, the biology and origins of adult cardiac stem cells, and cardiac regeneration.

**Project Description**

Modern technology allows us to transform skin cells into stem cells called induced pluripotent stem cells (iPSC), which can be experimentally driven into cardiomyocytes (i.e. hearts in a dish). We now have unprecedented power to experimentally investigate the mechanisms of congenital heart disease (CHD) in a patient-specific manner – a first step towards personalised medicine. We have created iPSCs from 10 families with hypoplastic left heart syndrome (HLH), one of the most severe CHDs, representing a unique resource for Australia. We will use state-of-the-art sequencing technology to identify the molecular changes in HLH and devise new screening tools to catalogue disease.

Burden of rheumatic heart disease: comprehensive measurement to drive the Endgame

**Principle Investigator:** A/Prof Judith Katzenellenbogen  
**Institution:** The University of Western Australia  
**Additional Investigators:** Professor Nicholas de Klerk, Karen Dempsey, Dr Frank Sanfilippo, Dr Marian Abouzeid, Dr Annette Regan, Jeffrey Cannon and Professor Jonathan Carapetis

Originally trained as an occupational therapist, Judith Katzenellenbogen’s interest in epidemiology and health equity has underpinned a public health career comprising broad professional experience in South Africa, New Zealand and Western Australia (WA). Her PhD thesis (University of WA, 2009) pioneered the use of linked data to estimate the burden of stroke. Thereafter, while based at the WA Centre for Rural Health, she led the epidemiology and translational component of a series of NHMRC grants on Aboriginal heart health in WA. On completion of her NHMRC Early Career Fellowship (2012-2015), she was awarded a Heart Foundation Future Leader Fellowship to undertake a broad research program ‘Closing the Knowledge to Action Gap in Indigenous heart disease and stroke’.

Prior to her current research role at the School of Population and Global Health at the University of WA, Judith was deputy lead of the Rheumatic Heart Disease (RHD) Research Group at Telethon Kids Institute. Building on the strong network of RHD, Aboriginal Health and linked data researchers in Australia, she will drive and oversee the first-ever multi-jurisdictional linked data study into the burden of RHD in Australia to which HeartKids has generously contributed.

**Project Description**

Acute rheumatic fever (ARF) and rheumatic heart disease (RHD) rates among Indigenous youth are the highest in the world. However, national estimates and health outcomes in children affected by ARF and RHD are not well measured in Australia due to fragmented information. This project will link hospital, surgical, death, and treatment information from multiple datasets in order to estimate the burden of RHD among Australian children for the first time. Results from this project will be used to develop a comprehensive roadmap for government to end RHD as a public health problem in Australia.
Nitric Oxide to reduce cardiopulmonary bypass-induced inflammation after cardiac surgery in children

Principle Investigator: A/Prof Luregn Schlapbach, FCICM
Institution: The University of Queensland
Additional Investigators: A/Prof Warwick Butt, A/Prof Andreas Schibler, Dr Robert Justo, Nelson Alphonso and A/Prof Antje Blumenthal.

A/Prof Luregn Schlapbach is a fulltime paediatric intensivist at Lady Cilento Children's Hospital PICU, working primarily in the cardiac PICU, and holds an appointment at University of Queensland. The research activity of Luregn Schlapbach has focused on inflammation and infections in critically ill neonates and children, covering epidemiology, immunology, outcomes and genomics in this highly vulnerable patient group. In the area of inflammation in critically ill neonates and children, Schlapbach has been leading discovery on the role of the lectin pathway of complement activation. He has been responsible for several inflammation and infection marker studies, focusing on markers of sepsis, disease severity and organ failure. More recently, his research has expanded to whole exome sequencing in children. Luregn has published over 50 peer-reviewed articles, and acquired over $3.5M (AUD) peer-review grants. He is involved in several national and international trials, and is part of the FP7 EUCLIDS consortium, and the H2020 PERFORM consortium.

Project Description
Each year, over a thousand children born with congenital heart disease in Australia require surgical intervention. Most surgical procedures for CHD require the use of cardiopulmonary bypass (“heart lung machine”), which can lead to harmful inflammation in the patients. Preliminary data suggests that adding low amounts of Nitric Oxide (a medical gas) to the bypass circuit, leads to better patient outcomes, likely because of reduced inflammation. This study will test in a multisite randomized-controlled study if the use of nitric oxide reduces inflammation after cardiopulmonary bypass in children. This trial aims to improve outcomes after cardiac surgery in children.
Early detection of hypertension in aortic coarctation using genome sequencing

Principle Investigator: Professor Fadi Joseph Charchar
Institution: Federation University Australia
Additional Investigators: Dr Melissa Lee, Professor Yves d’Udekem and Professor Stephen Harrap.

Professor Fadi Charchar graduated from The University of Melbourne (PhD). He is the head of the LEW CARTY Cardiovascular Genomics laboratory and holds the Robert HT Smith Chair in Cardiovascular Genomics at Federation University Australia. He is also an adjunct Research Fellow within the Department of Physiology at the University of Melbourne and Visiting Chair at University of Leicester, UK. His research focuses on the molecular genetics of cardiovascular disease. His research program has attracted funding from the NHMRC, LEW CARTY Foundation and the National Heart Foundation. He has been awarded a Wellcome Trust Research Fellowship, a Howard Florey Centenary Research Fellowship, British Heart Foundation Lectureship and the Okamoto prize for research. He is the author of many studies that have contributed to the molecular understanding of cardiovascular disease. These studies include evidence that the human Y chromosome and other genes contribute to cardiovascular disease. These studies have been published in The Lancet, Nature, Hypertension, Circulation, Circulation Research, Plos Medicine, ATVB and JASN. He serves on the editorial board of journals such as J Hum Hyper, Heart Lung Circulation, J Hypertension, Physiological Genomics and international peer review panels. He is a Fellow of the American Heart Association.

Project Description
Aortic coarctation (narrowing of the aorta) occurs in 5-10% of all children with congenital heart disease and requires surgery soon after birth. Unfortunately, the life expectancy of these patients is reduced as up to 75% may develop high blood pressure later in life, increasing their risk of heart disease. Using new technologies, we want to investigate the genetic changes that contribute to the development of hypertension in coarctation patients. These genetic changes will allow us to determine which patients will likely develop hypertension so we can initiate early treatment to prevent the development of hypertension and ultimately reduce premature death.

ROLL OF HONOUR AWARD

In celebration of the 10th Anniversary of the HeartKids Research Program and the tremendous progress made towards greater understanding and improved treatment of congenital (childhood) heart disease (CHD), HeartKids is pleased to introduce its inaugural Roll of Honour Award. This prestigious award recognises outstanding contribution to the field of CHD research both at a local and international level, with demonstrable impact on the treatment, management and/or prevention of CHD.

Recipient: Professor Yves d’Udekem MD PhD

Professor d’Udekem is an international leader in the field of paediatric cardiac surgery and is Deputy Director Cardiac Surgery Unit at the Royal Children’s Hospital, Senior Research Fellow at the Murdoch Childrens Research Centre and Professor of Paediatrics at the University of Melbourne. His main research and clinical focus is the long-term outcome of patients born with a single ventricle who have undergone a Fontan operation. He is now leading the world’s largest and most in-depth research of its kind in this patient population.

In 2011, Professor d’Udekem received project funding from the HeartKids Research Program to understand the complicated Fontan Physiology, and in 2012 received a HeartKids Grants-in-Aid to establish the first pilot Australian and New Zealand Fontan Registry. During this period, he collaborated significantly with other researchers in the field and received funding to measure the burden of untreated hypertension amongst patients with repaired aortic coarctation. Importantly, the initial funding of the pilot Fontan Registry led to Professor d’Udekem being successful in securing a $1.25 million NHMRC Partnership Grant to improve the survival and quality of life of babies born with severe congenital heart conditions.

HeartKids is a partner with Professor d’Udekem in this NHMRC Partnership Grant, and it is these collaborations with Professor d’Udekem that have helped lead to the establishment of a pilot bi-national CHD registry project facilitated by HeartKids and supported by the Pinnacle Charitable Foundation (formerly Wilson HTM Foundation) and the Kinghorn Foundation.

Professor d’Udekem is very generous with his time and always makes himself available to the HeartKids and CHD community, speaking to the media, at educational events and providing support to patients and their families.

He is a most deserving first inductee into the HeartKids Roll of Honour.
Dr Lisa A. Selbie, Ph.D. Chair

Dr. Selbie received her Ph.D. in Molecular and Cell Biology from Northwestern University and has experience in cardiovascular research, project management, consulting and teaching. Dr Selbie held research positions at the Garvan Institute of Medical Research and Queens Medical Centre, Nottingham as a Wellcome Trust Research Fellow studying cardiac neuropeptide receptors and cell-based models of receptor signal transduction. Dr Selbie has also been involved in consultancy reviews of national research funding processes. Dr Selbie is currently a lecturer with Johns Hopkins University MS/MBA Biotechnology Program developing and delivering on-ground and online courses, serves on the NSW AusBiotech Committee, and is Chair of the HeartKids Research Advisory Committee and a Director of the HeartKids Ltd Board.

Dr Julia Charlton (Gunn) MBBS FRACP Grad Dip Mental Health Sc PhD

Julia Charlton (Gunn) is a Consultant Neonatologist in the Newborn Intensive Care Unit (NICU) at the Royal Children’s Hospital (RCH), Melbourne. Following her specialty fellowship, she completed her PhD studying brain injury and neurodevelopment in infants with congenital heart disease, based in the Cardiac Intensive Care Unit (CICU) at RCH. Julia coordinates the neurodevelopmental follow up program for NICU graduates who have undergone surgery for congenital anomalies and for the national hypoplastic left heart syndrome program. Her research interests include perinatal stroke and neurodevelopment following neonatal surgery. She is also a Course Director for Advanced Paediatric Life Support. Her spare time is consumed by two toddlers who are NICU and CICU graduates themselves.
Jemma’s journey with HeartKids commenced in 2009 when her 1 year old son was diagnosed with an Atrial Septal Defect (ASD), following investigation of a heart murmur. The ASD was successfully closed via a cardiac catheter procedure at the Royal Children’s Hospital in Melbourne, in 2013.

Dr Siiri Iismaa, PhD.

Dr Iismaa graduated from the Australian National University with BSc (Hons I) and the University Medal, and then a PhD in Genetics and Molecular Biology. Dr Iismaa began her career at the University of California, Irvine as a US Biotechnology Program Fellow, where she coupled her molecular biology skills with protein engineering and protein structure-function studies. Dr Iismaa returned to Australia to the Heart Research Institute in 1990 as an NHMRC Australian Postdoctoral Fellow to work on heart disease, studying proteins of immunological importance and regulation of gene expression. In 1994 Dr Iismaa embarked on her current career at the Victor Chang Cardiac Research Institute, where she uses various transgenic mouse models to study proteins involved in receptor signal transduction. Her work is currently focussed on heart muscle cell division and differentiation, and on heart regeneration following cardiac stress or injury. Dr Iismaa is a highly regarded and internationally recognised senior scientist, who publishes in leading scientific journals and is an invited speaker at national and international meetings. In 2015, Dr Iismaa undertook a two-week lecture tour of Japan as a Japan Society for the Promotion of Science Fellow.

Dr Jemma Lawson, Ph.D.

Dr Lawson achieved her Ph.D. in Molecular Biology and Cell Biology at Flinders University of South Australia and started her career in the biotechnology industry at GroPep Ltd, undertaking roles in research, project management and scientific assessment of potential in-licensing opportunities.

In 2006 Dr Lawson embarked on her current career path in Clinical Research, initially working for a small Australian Clinical Research Organisation (CRO), operating in a dual role as a Clinical Research Associate (CRA) and a Clinical Project Manager. Moving to a Global CRO in 2009, she held positions in clinical monitoring as a Senior CRA and Clinical Team Leader, responsible for clinical operations across South Australia, Western Australia and Queensland. Dr Lawson is currently a senior member of the Project Management team, focussing on early-phase clinical trials, with responsibilities in project management, client relations, and business development. She also leads a team of project administrators, managing resourcing requirements, process improvement, professional development and performance management.

Jemma’s journey with HeartKids commenced in 2009 when her 1 year old son was diagnosed with an Atrial Septal Defect (ASD), following investigation of a heart murmur. The ASD was successfully closed via a cardiac catheter procedure at the Royal Children’s Hospital in Melbourne, in 2013.

Dr Clare O’Donnell MBChB FRACP MS FCSANZ

Dr O’Donnell is a consultant in paediatric cardiology and adult congenital heart disease at Starship/Auckland City Hospitals. In addition to general duties her particular interests include interventional cardiology for paediatric and adult congenital patients and care of patients with pulmonary hypertension.

She obtained her medical degree at Otago University in Dunedin, completing her clinical training in Wellington at the Wellington Clinical School. She completed a Diploma in Obstetrics and Gynaecology as a senior house officer before embarking on Paediatric training in Auckland. Following a registrar rotation at Green Lane Hospital she undertook to specialise in Paediatric Cardiology.

Initial training in Auckland was followed by 2 years of paediatric fellowship and then senior fellowship at the Boston Children’s Hospital. Following training she joined the Boston Adult Congenital Heart (BACH) team for a year on staff with a joint appointment to Boston Childrens and the Brigham and Women’s Hospitals. During this time she also completed a Masters in Science in epidemiology at the Harvard School of Public Health.

In late 2003 she returned to a specialist position in Auckland which she has held since. In addition to her clinical work Dr O’Donnell has ongoing involvement with both departmental and collaborative research projects. She holds representative posts within the International Society for Adult Congenital Heart Disease, the Asia Pacific Society for Paediatric Cardiology and the Pulmonary Hypertension Society of Australia and New Zealand.

Dr Graham Nunn AM ML FRACS

One of the most experienced paediatric cardiac surgeons in Australasia, Dr Graham Nunn has worked extensively in Australia and overseas. Dr Nunn has been Director of the Queensland Paediatric Cardiac Service (QPCS) surgical team at the Mater Children’s Hospital of Paediatric Cardiac Surgery, as well as Director and senior paediatric cardiac surgeon at the Children’s Hospital Westmead and the Sydney Children’s Hospital, the Westmead Medical Centre, Royal Alexandra Hospital for Children, and Prince of Wales Hospital.

Dr Nunn was also a longstanding Member of Operation Open Heart cardiac surgical programs in Myanmar and Papua New Guinea from 1994-2013 and was awarded Member Order of Australia in 2004. In his retirement, Dr Nunn generously provides the Research Advisory Committee with the benefit of his significant clinical and research expertise in this field.