

NEWSLETTER

SEPTEMBER 2020



FROM THE ACVA LEADERSHIP

Message from ACVA President

I want to take the opportunity to send a special message of thanks and support through our Newsletter to all our Victorian members who have been impacted by the COVID lockdown. These have been tough times indeed, but the energy, collegiality and contribution of the Victorian based team has not diminished. Particular thanks go to:

- Professor Grant Drummond, Professor Mark Febbraio, Dr Helena Qin, A/Professor Andrew Murphy (ACvA Board Director) and Professor Rebecca Ritchie for their amazing contributions to the Grant Writing Webinar.
- Professors Grant Drummond and Rebecca Ritchie – again – for their leadership of the ACvA's Drug Discovery Flagship.
- Professor Steve Nicholls, leading our Awards working group and as Treasurer of the ACvA Board.
- A/Professor Francine Marques, working on the Awards Group and leading our Emerging Leaders Committee
- A/Professor Anna Calkin, who has taken on the Mentoring Program
- Dr Katrina Colafella who is co program manager of the CVD Champions Program.

Thanks also to our Melbourne-based Board Members and Flagship Directors, Professors Karlheinz Peter, David Kaye, Vincent Thijs, Peter Meikle and Peter Barlis for keep the CVD flag flying high.

Take care all of you and we hope to see you and your colleagues meeting, running, walking, cycling and enjoying all your institutions and state have to offer.

Gemma Figtree

Spotlight on our Board Directors – Professor Jamie Vandenberg

Starting with this month's newsletter, we begin a new section featuring members of our Board of Directors, starting with Professor Jamie Vandenberg, Deputy President and Company Director.

“Probably the most formative influence in my medical training was the cardiology training rounds hosted by David Kelly at Royal Prince Alfred Hospital. The main lessons I took from those sessions were (i) the importance of a detailed understanding of both the molecular and physiological basis of disease and (ii) there were too many empirical treatments for which we did not have a detailed understanding of how they worked. This led me to pursue a PhD in cardiac biochemistry and then post-doctoral training in cardiac electrophysiology. In the early 1990s, following the failure of the



CAST study, it seemed to me that tackling the problem of cardiac arrhythmias and sudden cardiac death was the next big frontier in cardiology. In recent years, spectacular developments in multi-omics technologies coupled with high throughput cell phenotyping and high-performance computing are enabling us to develop a much deeper understanding of why electrical signalling in the heart is so robust yet is susceptible to catastrophic failure. However, the excitement generated by these technological breakthroughs, has been tempered by the reduced funding for biomedical research and the pressure to pursue more translational research. I was therefore keen to join the board of

ACvA to promote the importance of continuing to pursue research into our number one killer, to advocate for more funding to support this research and particularly for the next generation of cardiovascular researchers, and to advocate specifically for continued support of fundamental mechanistic research as an important component of the cardiovascular research ecosystem.”

Congratulations



Congratulations are in order for the ACvA’s Executive Director, Kerry Doyle. As well as being a champion for CVD research over many years, Kerry is also a passionate supporter of education as a path out of poverty and since 2015 has been a supporter and advocate for the Cambodian Children’s Fund (CCF), sponsoring two children in the CCF program and visiting every year since 2015. Kerry’s efforts for the CCF were recently recognised, when CCF’s founder Scott Neeson asked her to take on the role of Chair of the CCF Board in Australia.

Kerry will commence this role in October, while continuing in her “day job” for the ACvA.

We can also congratulate Kerry for becoming a grandmother – for the 11th time... and welcome Lily Meredith Frances Karam to 2020.



ACVA TO SPEAK AT THE VIRTUAL MEDTECH CONFERENCE



With support from MTP Connect, the ACvA will attend the virtual Medtech conference and will have the opportunity to showcase the amazing work of our Bioengineering members and Flagship, along

with our clinical trials capabilities. We have been given a place in the Innovation Pavilion and a speaking spot at an event that will target global industry, where we can showcase Australian CVD innovation and trials capability and our local medtech industry, as well as the collaborative culture and can-do attitude of the ACvA leaders. Find out more about the MedTech conference [here](#).

SPOTLIGHT ON OUR FLAGSHIPS – DRUG DISCOVERY

This month's spotlight is on our Drug Discovery and Translation Flagship. This flagship is led by Professor Grant Drummond and Professor Rebecca Ritchie.

Flagship Directors



Professor Grant Drummond is Head of the Department of Physiology, Anatomy and Microbiology (PAM), and Co-director of the Centre for Cardiovascular Biology and Disease Research (CCBDR) at La Trobe University. His research is in the area of cardiovascular and chronic kidney disease with a specific focus on understanding the roles of oxidative stress and the immune system in promoting the vascular and renal inflammation that contributes to these conditions. Grant Drummond's work has provided novel insights into the roles of NADPH oxidase-derived reactive oxygen species as signaling molecules under physiological conditions, and mediators of oxidative damage in vascular disease. His studies have also shed new light on the involvement of inflammasomes and interleukin-18, and B cells and autoantibodies in the development of hypertension and kidney damage. His work is funded by the National Health and Medical Research Council of Australia and the Heart Foundation of Australia.



Professor Rebecca Ritchie is the Theme Leader of the Drug Discovery Biology Theme in the Monash Institute of Pharmaceutical Sciences (MIPS) in Parkville, in addition to leading the Heart Failure Pharmacology laboratory within the Theme. Rebecca is internationally recognised for her contributions to cardiac pharmacology. Her translationally-focused research objective is the identification of new treatment strategies for arresting the progression of heart failure, particularly in the context of diabetes, myocardial infarction and other inflammatory disorders. These strategies have been both pharmacological and gene delivery-based. The research achievements of Professor Ritchie to date include 116 career publications (spanning both preclinical models of disease and patient studies), continuous peer-reviewed funding since 1999. Her international profile in her chosen field has been further recognised by numerous prestigious speaking invitations, including multiple World Congresses, including Cardiology, Diabetes, Pharmacology, and the International Society for Heart Research, as well as the American Heart Association and the British Pharmacology Society.

The Flagship strives to create a sustainable, nationwide ecosystem of drug discovery that results in a pipeline of efficacious therapies to treat cardiac disease, vascular disease and stroke. By

identifying the current cultural landscape of Australian cardiovascular research, the Flagship hope to drive changes that will be most effective for delivery of high-quality drug discovery research. Such changes will help to create a strong interface between basic scientists, clinicians and industry, allowing the formation a truly collaborative and impactful drug discovery network.

Ten members make up the Advisory Group from the Flagship and together they have identified six high priority areas that will drive their vision.

The Flagship Advisory Group

Andrew Boyle



Judy de Haan



Belinda Di Bartolo



Mark Febbraio



Kerry-Anne Rye



David Howells



Justin Hamilton



Lauren May



Bronwyn Kingwell



Anne Field

Below are some of their thoughts on and aspirations for the Flagship:

"A major role of the ACvA Drug Discovery and Translation Flagship is to develop a collaborative, nation-wide framework where fundamental researchers, clinicians and industry partners work together to identify targets and develop new drugs that address the most urgent areas of unmet need in cardiovascular disease management" – **Prof Grant Drummond**

"Our goal is to achieve a positive, collegial culture of research across all career levels and research areas within our field" – **Prof Rebecca Ritchie**

"Finding novel therapies to treat cardiovascular diseases remains critical since ischaemic heart disease and stroke remain the world's biggest killers, despite available drug therapies. Thus, the

work of the ACvA, and the Drug Discovery Flagship in particular, is key to new approaches being tested for a better future in CV health". – **A/Prof Judy de Haan**

"Drug discovery is most valuable when it disproves the German pharmacologist Otto Loewi, who famously said: "A drug is a substance which, if injected into a rabbit, produces a paper." The ACvA is uniquely placed to facilitate movement along the drug discovery pipeline in our field by connecting the problems presented to clinicians, the solutions found in academia, the power and resources of industry, and the support and awareness of government and other relevant bodies." – **A/Prof Justin Hamilton**

"With a growing aging population and increased incidence of obesity and diabetes, the prevalence of CVD, in particular heart failure and atrial fibrillation is rising. Individually, these two diseases are associated with significant morbidity and mortality, and the presence of both identifies patients with a higher risk of death than either condition alone. Current drugs to treat these diseases have limited or no efficacy, and potentially dangerous side effects. The treatment of patients with these diseases represents a major unmet clinical need and, therefore, the ACvA is vital in helping to facilitate a drug discovery pipeline." – **Prof Mark Febbraio**

"My father was treated for his heart attack in 1970 with "state of the art" therapy for the times – 2 weeks bed rest. He was not even treated with an aspirin. And he kept smoking in his hospital bed. The advances in medical therapy in the ensuing 50 years has been astounding. We now regularly open the occluded coronary artery within minutes to hours, treat patients with five proven life-saving medications and sometimes even implant more advanced devices such as implantable defibrillators. Many are discharged home within just a couple of days. These advances are all underpinned by excellent preclinical fundamental discovery science, which has then been translated into the clinical realm. Why do we need drug discovery? Because in 1970 my father survived a heart attack due to luck. Now our patients survive thanks to science." - **Prof Andrew Boyle**

"Drug discovery is an integral part of the ACvA portfolio. It provides the cardiovascular research community with unique opportunities to identify and develop transformative therapies that may reduce cardiovascular disease in people that remain at risk of an event despite being treated optimally with lipid lowering drugs. Through its fostering of interactions between academia and big pharma, the ACvA is enabling eventual translation of these discoveries from the bench into the clinic." – **Prof Kerry-Anne Rye**

Celebrating the Drug Discovery Flagship initiatives

Report on Interactive webinar



Dr Chengxue Helena Qin
Head of Cardiovascular
Pharmacology, Monash University



A/Prof Andrew Murphy
Head of Haematopoiesis and
Leukocyte Biology, Baker Institute



Prof Mark Febbraio
Head of Cellular and Molecular
Metabolism, Monash University

Chairs: Profs Grant Drummond and Rebecca Ritchie,
co-directors of the Drug Discovery Flagship

Tuesday 15 September 2020, 11:00am – 12:30pm AEST

Register your interest [HERE](#)

Earlier this month, the ACvA hosted an interactive webinar, *Grant writing: Tips to Success*, through the Drug Discovery Flagship. The webinar was the first stage of a grant review program raised by the Flagship for implementation by the ACvA operations team as a means of providing advice and

support to unsuccessful grant submitters and aspiring applicants with a view to helping improve the success rates of CVD grant applications and drive a vibrant and sustainable cardiovascular research community.

The webinar was a great success with over 120 participants, and the speakers and Flagship Co-Directors did an excellent job presenting and chairing an invigorating and informative session.

If you would like to watch a recording of this session, please contact meng.hsu@ozheart.org for a link.

INDUSTRY WORKING GROUP REPORTS

EIU Digital Roundtable Report

Earlier this year, the Economist Intelligence Unit, supported by the ACvA and Digital Health CRC, with sponsorship from Amgen convened a virtual roundtable discussion with 25 representatives from the Australian cardiovascular health sector. The aim of this roundtable was to identify barriers, challenges and opportunities to improve outcomes for high risk CVD patients by improving the use of data and digital technologies. Five key takeaways and recommendations for next steps were determined and were based on:

- Defining the functional data requirements for healthcare professionals managing high-risk CVD patients
- Creating a business case for the use of data within healthcare settings
- Improved standardisation of data sets for predictive analytics and artificial intelligence
- Building broader data linkage and interoperability across the health system
- Educating target groups on the opportunities for data and digital.

To read the full article, please click [here](#).

Interim reports for Industry Working Groups

Our two industry-partnered working groups are:

- The Industry and Academia Partnership working group, consisting of 15 members and chaired by Professor Jason Kovacic and Mr John Crothers. The group held a virtual Roundtable last month to discuss:
 - the significance of clinical trials in facilitating successful outcomes but also in building strong industry/academic partnerships and what CVD specific action is needed
 - the importance of consumer engagement in trials and clinical research and how we can make this happen
 - our capabilities as a sector, how we match this with industry and consumer needs
 - capability gaps and how we fill them.

Key recommendations from the interim report, following the Roundtable include:

- Lend support, provide the CVD perspective and share information to/with peak advocacy groups that are working to improve and streamline ALL pathways to clinical

trials/implementation, including ethics processes, initiatives to reduce start up times and allow faster enrolments in trials

- Enable connectivity and information flows between ACvA members, the health system, industry departments and other experts, identifying gaps or opportunities for enhancement, to build a business-oriented approach to clinical trials.
- Identify and map cardiovascular specific capabilities, including first in human capability
- Develop a framework for Australian cardiovascular researchers to demonstrate regional clinical trial leadership
- The Evidence and Value-Based Care working group, consisting of 14 members and chaired by Professor Stephen Worthley and Mr Kieran Schneemann. The group has been focusing on policy issues that impact on the ability to accelerate evidence and value-based care to patients and in particular some of the gaps and impediments relating to the MSAC and PBAC processes. For example, the need to increase transparency and accountability; the need to create an avenue of appeal; the need to reduce MSAC timelines; and the whether there could be enhancements to the composition of MSAC. The group is also working towards a Roundtable later this month.

Key priorities identified from the interim report include, the urgent need for:

- A well-developed and aligned advocacy agenda
- Consumer engagement framework and development timeline
- Perspective pieces on key issues such as Big data to stimulate discussions and guide further considerations.

ACVA ACTIVITIES

HLC survey article

In 2019, the ACvA's Emerging Leaders Committee (ELC), with assistance from Monash University, undertook a survey of over 500 cardiovascular researchers to understand the current landscape and perceived challenges faced by cardiovascular researchers in Australia. The survey was distributed across Australian cardiovascular societies and councils, universities and research institutes and painted a concerning outlook for the sector with many researchers considering leaving due to a lack of job and financial security, as follows:

- only 23 percent have permanent employment;
- as many as 68 percent have considered leaving CVD research, and
- a worrying 91 percent would leave CVD research in the absence of secure funding in coming years.

These findings clearly demonstrate that there is an immense need for a better strategic, coordinated and diversified approach to funding and in-kind support, and a much closer collaboration between researchers and key government, health, philanthropic and industry stakeholders to create a more

sustainable future for the sector and ensure there is significant impact from the funding that is invested. Creating these kinds of collaborations is at the core of the ACvA's mission and purpose and central to the programs we are developing and delivering to build connectivity, cross sectoral engagement and create opportunities for our members. The results of the survey were published in *Heart, Lung and Circulation* last month.

To read the article, please see here: <https://doi.org/10.1016/j.hlc.2020.07.010>

ELC Mentoring Program update and launch event

The ACvA Emerging Leaders Committee has launched its cross-sector mentoring program for early and mid-career researchers. Mentees can select to be paired with a mentor across a range of sectors and research fields. This will provide the opportunity for mentees to gain insights from other industries, enhance their skill set, seek professional development and career guidance amongst other things. These interactions are likely to be of particular importance during the additional challenges we are facing in the current climate. This is also a great opportunity to facilitate interaction, growth and development both within the ACvA community and the greater cardiovascular community.

A virtual kick-off event is being planned for 27 October 2020, but interested personnel are still welcome to sign up. To register as a mentee, please click [here](#). To register as a mentor, please click [here](#).

For further details and enquiries, please contact anna.calkin@baker.edu.au

Welcome the new WA representative for the Emerging Leaders Committee



This month, we are pleased to introduce the newly appointed WA representative for the Emerging Leaders Committee, Dr Lauren Blekkenhorst. Dr Blekkenhorst is an NHMRC Emerging Leadership Fellow and a National Heart Foundation Post-Doctoral Research Fellow in the School of Medical and Health Sciences at Edith Cowan University. Her research aims to better understand the cardiometabolic health effects of specific vegetables and their bioactive constituents, as well as finding new and improved ways to encourage people to eat more vegetables every day.

Dr Blekkenhorst says *“Having a family history of heart disease and love for nutrition led me to where I am today as a cardiovascular nutrition researcher. The Emerging Leaders Committee is an important representative body to raise awareness of the burden associated with cardiovascular disease in Australia, and to promote the need for further funding for cardiovascular researchers to continue to discover new knowledge in order to prevent and treat cardiovascular disease in Australia. I joined the Emerging Leaders Committee because I want to be a part of the change to increase cardiovascular research funding and to support early- and mid-career cardiovascular researchers to retain their careers as researchers in their respective cardiovascular fields.”*



ACvA on Twitter and LinkedIn

Follow us for the latest updates at the ACvA! Click the icons to join.

OTHER NEWS AND EVENTS



Expression of Interest: ANZACT Peer Review Workshop

EOIs are now open to have your project included in the ANZACT Peer Review Workshop on 29 and/or 30 October. For more details visit the ANZACT website [here](#). Note you will need to be a ANZACT member to submit your application (membership is free).



STA Board and Executive Nominations and AGM RSVP

- Nominations for STA Board positions close 30 September, you can find [more information here](#).
- Nominations for the STA Executive are currently open and close 12 October, you will find [more information here](#).
- The 2020 STA AGM will take place virtually on Tuesday 24 November from 9.30 – 11AM AEDT. [RSVP for your Member Representative here](#). Please note spaces are limited to one representative per member organisation.



NHFA Research Webinars

The Heart Foundation Alumni Program will be hosting a series of webinars exclusive to the members of the [Heart Foundation Alumni Community](#) (previously and currently funded researchers).

- 15 October – COVID Implications on Mental and Cardiovascular Health
- 5 November – 2021 Research Funding Portfolio Announcement
- 24 November – Promoting Alumni Research: *3-minute presentations*

More information including registration can be found on the [Heart Foundation Website](#). If you have any questions, please contact alumni@heartfoundation.org.au



Give with Heart Day

Give with Heart Day is the Heart Foundation's annual fundraising challenge.

On 7 October, we're aiming to raise \$4 million to support life-saving research to help make heart disease history. Every dollar donated, will be quadrupled by some of our generous donors.

Donate today and make four times the impact. Hand on heart, we can do this.

URL www.givewithheartday.com.au

FUNDING OPPORTUNITIES

Wellcome Innovators Award

The Innovator Awards are open internationally to researchers who are developing healthcare innovations that could have a major and measurable impact on human health. Organisations can be of any size, based anywhere in the world. Funded organisations must sign up to the Wellcome Trust's grant conditions. Shortlisting meetings happen every three months.

Find out more below:

<https://wellcome.ac.uk/grant-funding/schemes/innovator-awards>

Johnson & Johnson - Women in STEM2D Scholars Programme 2021

To support women in STEM fields, Johnson & Johnson is offering a \$150,000 USD 3-year fellowship for research funding. Applicants must hold a PhD and be an assistant female professor or global equivalent faculty position at the time of application at an accredited academic university, institution or design school. Judges will use the following criteria to evaluate the applications:

- Scientific/technical expertise exhibited
- Novelty/innovation of the research
- Potential impact of the research
- Feasibility of the research

Applications close 15th October 2020.

Find out more below:

<https://www.jnj.com/wistem2d-university-scholars>