

# Newsletter: Vol 16, Issue 3 - June 2020



Healthy Development Adelaide  
A Research and Innovation Cluster in South Australia

## GET INVOLVED!!

### BECOME A MEMBER OR RENEW YOUR MEMBERSHIP

Join us in fostering South Australian multidisciplinary research, policy and practice at basic, clinical, social and population levels to enhance the healthy development and wellbeing of Australia's future generations.

HDA membership is open to researchers, PhD students and professionals working in areas relevant to HDA's research. We also encourage the community who are interested in HDA and what we do to join and support us.

1 year for \$20 or 3 years for \$50 (excluding GST).

#### Membership benefits

The vastly subsidised fees offer great value for money and unlock the following member benefits:

- Access to travel grants (PhD students and early career researchers)
- Access to PhD scholarships for your students
- Eligibility to apply for HDA awards
- Free attendance at HDA events
- Build relationships with people working in areas relevant to the health and development of young children and adolescence
- Contribute your knowledge and expertise to make a difference
- Support HDA into the future

#### JOIN HERE

<https://health.adelaide.edu.au/healthy-development-adelaide/get-involved>

## OUR PARTNERS

### PLATINUM



### GOLD



### SILVER



**Government of South Australia**  
Department for Education



**Government of  
South Australia**

Women's and Children's Health Network



Women and Kids

### BRONZE



## MEDICAL RESEARCH FUTURE FUND HDA Co-Convenor

\$32 million for the next generation of clinician researchers to pursue critical health and medical research

The Australian Government will invest almost \$32 million through the Medical Research Future Fund (MRFF) in world-leading health and medical research projects.



**A/Professor Carol Maher**, University of South Australia  
*Evidence-based digital technologies for health behaviour*  
\$1,118,593 (5 years)

Poor lifestyle patterns (physical inactivity, excess sedentary behaviour, lack of sleep, poor diet) are leading modifiable causes of death and disease in Australia. It is vital we improve health behaviors in our communities, particular within high-risk groups. The rapid growth of technologies has created new possibilities for health interventions. Innovative research is needed to harness this potential by creating and translating personalised, scalable technology-based interventions.

See UniSA media release on page 6.

## HDA MEMBER NEWS



**Professor Alison Coates** (pictured) will become Director and **A/Professor Carol Maher** as Deputy Director of the Alliance for Research in Exercise, Nutrition and Activity (ARENA). ARENA is a research concentration within the University of South Australia investigating the role of exercise, nutrition and other lifestyle activities in improving clinical and health outcomes.

Alison and Carol have strong records in research and engagement and will continue to work closely with the group to lead the concentration.



**Professor Lisa Jamieson**, Director of the Indigenous Oral Health Unit, Adelaide Dental School at the University of Adelaide has been awarded one of the highest honours of the International Association for Dental Research (IADR), the Distinguished Scientist Award (the H. Trendley Dean Award) for 2020.

The award is given for distinguished accomplishments in research and development in the fields of behavioural science, epidemiology, and public health.

## NEW HDA RESEARCH MEMBERS

### **Mrs Kelsey Sharrad**

Allied Health & Human Performance Unit, UniSA  
*Focus - asthma, mental health*

### **Dr Julia Morris**

Cancer Council SA  
*Focus - paediatric cancer, cancer control & evaluation*

### **Ms Shanna Hosking**

Robinson Research Institute, University of Adelaide  
*Focus - reproductive immunology*

**!! JOIN NOW !!**

# NHMRC INVESTIGATOR GRANT FUNDING 2020

## HDA RESEARCH MEMBERS

Congratulations to the following members who have been awarded an NHMRC Investigator Grant!!



**Professor Sarah Robertson**, Director of the Robinson Research Institute, University of Adelaide

Peri-conception determinants of reproductive and pregnancy health  
\$3,560,520

"The immune response is a key driver of many infertility and pregnancy problems, and immune factors are emerging as strong targets for novel preventative and therapeutic interventions," Professor Robertson said.

"We will develop new predictive diagnostics for immune-based reproductive and pregnancy disorders, and uncover the underlying causes. This will allow us to progress towards preventing and better managing these conditions, and improve fertility and birth outcomes for families in Australia and around the world. Reproduction and pregnancy disorders affect more than a hundred thousand Australian families every year, with long-term health and wellbeing impacts to women, men and children. Importantly, this work will translate knowledge into practise, delivering benefits to consumers, clinical practitioners and health care services."



**Professor Benjamin Thierry**, University of South Australia

Addressing Healthcare Disparities in Remote and Low Resource Settings with Solid-State Biodiagnostic Devices  
\$2,194,658

"Wearable consumer products such as the Fitbit are already mainstream, yet the enormous transformative medical potential of wearable technologies is yet to be realised," he says.

"There is a huge opportunity for us to create wearable devices capable of better diagnosing and monitoring medical conditions, particularly in rural and remote settings where patients often do not have access to the testing and specialist care that is available in cities. Some of the technologies I hope to develop include wearable devices able to continuously and accurately monitor the ECG, which could in turn predict epileptic seizures or detect preeclampsia and other related pregnancy complications. These wearables use a cutting-edge solid-state sensing technology called Field Effect Transistors, which can measure bioelectric signals with extreme sensitivity when implemented at the nanoscale."

"Central to this project is developing innovative and affordable devices that can be used directly by patients under the supervision of primary healthcare providers, without the need for invasive or lengthy testing or specialist care," he says. "These devices have the potential to revolutionise how we care for not only patients in regional Australia but people around the world who live in low resource and remote areas. If we can provide affordable tools able to predict or diagnose within local communities, common health issues such as pregnancy complications or heart attacks, we would significantly improve healthcare across the board and ultimately reduce the health outcome disparities that exist around the globe."



**A/Professor Simon Conn**, Flinders University

Circular RNAs as genome destabilisers in human disease  
\$2,163,220

"This five-year grant will allow us to expand our understanding of a new family of genetic molecules, called circular RNAs. By understanding how they are formed and behave in human cells, we aim to determine whether circular RNAs might be novel targets for new anti-cancer drugs," says ARC Future Fellow Associate Professor Conn.

"The average survival time after diagnosis for patients with glioblastoma is just over one year and this has not improved in the past 30 years," says Associate Professor Conn. My ultimate goal is to see similar increased survival from this disease as has been achieved through scientific research for other more common cancers, including breast and prostate cancer. In order for our DNA sequence to control how our cells and body functions it must be decoded."

"However, this decoding involves hundreds of proteins and it is not a perfect process introducing changes to the sequence which can have serious impact on how every single cell functions. Being awarded this highly prestigious NHMRC grant will allow us to understand the process of circular RNA formation in human cells at a never-before-possible level of detail to assess whether there is potential for new anticancer drugs which could target these circular RNAs in the body."

# OPEN YOUR WORLD

>>> Look after you and your family

>>> Connect with others

>>> Stay active and healthy

>>> Learn and experience new things

Go to <https://openyourworld.sa.gov.au>

## Child Development Council

### Strong Futures - SA Youth Action Plan 2020-2022

Young people have always been active contributors to South Australia's social, cultural and economic life.

#### Not just Collateral Damage: The hidden impact of domestic abuse on children

Domestic abuse can happen in any relationship or family and can have a significant impact on children, putting at risk their future wellbeing, their education, and their chance of forming happy, healthy relationships.

#### Gambling on games: how video games expose children to gambling

The presence of gambling and gambling technologies in video games is widespread, pernicious and often hidden. This report identifies four different categories of gambling/gaming crossover, each of which poses different risks.

#### UniSA conducts world first review of the importance of nature play

This world-first review could transform children's play spaces, support investment in city and urban parks, while also delivering important opportunities for children's physical, social and emotional development.

#### New collaboration will place more books in the hands of young First Nations readers

A three-year collaboration between the Indigenous Literacy Foundation and Australia Post will see nearly 100,000 books delivered to over 400 remote communities throughout 2020.

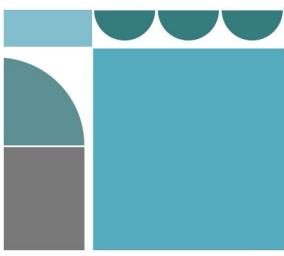
Further information at <https://childrensa.sa.gov.au/>

## The new Women in STEM Ambassador website is now live at [womeninstem.org.au](http://womeninstem.org.au)



Women in STEM Ambassador

EVALUATING STEM GENDER  
EQUITY PROGRAMS  
A guide to effective program evaluation  
Isabelle Kingsley



The website includes:

- Information about the Office of the Women in STEM Ambassador
- Useful resources for families, students, educators and workplaces
- Information about key projects, publications, videos and events.

I would also like to draw your attention to the newly developed *Evaluating STEM Gender Equity Programs – a guide to effective program evaluation* (the Guide). There are over 300 STEM gender equity programs in Australia, but we know little about whether these programs are effective because few are evaluated. The Guide is intended to make evaluation easier for those designing and delivering STEM gender equity programs.

The Guide is a key initiative under the Australian Governments' *Advancing Women in STEM 2020 Action Plan* and is currently in a pilot phase. The team will be asking the owners of STEM gender equity programs to use the Guide and provide feedback for further refinement throughout 2020.

You can download the guide at [womeninstem.org.au/research-projects](http://womeninstem.org.au/research-projects)

## HDA PARTNER NEWS SAHMRI WOMEN AND KIDS

### Healthy babies need the Whole Nine Months, 20 February

Pregnancies lasting the 'Whole Nine Months' give babies the best start in life. With this as their driving force, a coalition of SA-based clinicians and researchers are launching a multi-faceted campaign to help prevent preterm birth.

The Whole Nine Months comprises an awareness campaign for parents-to-be, coupled with clinician education and new guidelines for perinatal practice. The guidelines are being written by obstetrician, gynaecologist and researcher Dr Monika Skubisz.

"Complications arising from preterm birth are the leading cause of death in Australian children under five years old," Dr Skubisz says. "Despite this, and several known risk factors, preterm birth rates are going up nationally." Known risk factors include maternal infections during pregnancy, previous history of preterm birth and smoking. "The challenge we have in preventing preterm birth is that the causes differ from one person to the next and even one pregnancy to the next, so there is no 'one-size-fits-all' solution," Dr Skubisz says.

The Whole Nine Months is backed by the Australian Preterm Birth Prevention Alliance and supported by the State Government, including the Minister for Health and Wellbeing, the Hon Stephen Wade MLC.

"We know from research how important it is for babies to be given the best possible chance to fully develop while in the womb," the Minister says. "Ensuring parents-to-be know how to avoid risk factors for pre-term births is a key step towards good health outcomes for our next generation."

Dr Skubisz says similar campaigns have been rolled out with great effect in other states, starting with Western Australia in late 2014. "Under the guidance of Professor John Newnham, the first full year of that campaign saw a reduction in premature births of almost eight per cent across WA," Dr Skubisz says. "That is a significant figure. It means 200 or so babies who would otherwise have had to deal with immediate and ongoing health issues relating to preterm birth avoided that fate."

The Whole Nine Months will be formally launched tonight when around 200 obstetricians, midwives, general practitioners and other professionals involved in antenatal care convene at SAHMRI.

"The SAHMRI team based at Adelaide's Women's and Children's Hospital has made enormous contributions to what we know about preterm birth prevention and continue to be research leaders in the field," Dr Skubisz says. Preterm birth is defined as before 37 weeks' gestation, while early preterm birth means delivering before 34 weeks.

### Families in Australia Survey: Life during COVID-19 Australian Institute of Family Studies (AIFS)

**The Life during COVID-19 survey wants to understand how Australians are coping with and adjusting to the Coronavirus pandemic.**

#### Who can take the survey?

To take the survey, all you need is to be 18 years old or over and living in Australia. We are interested in every person in every type of family. Because everyone has a family, and families come in all shapes and sizes.

#### What are we researching?

This is the very first Families in Australia Survey. We want to understand the things that help families to thrive, particularly in this challenging time. Our research will focus on:

- How are families adjusting to the COVID-19 pandemic?
- How are they feeling the social impacts?
- How are they feeling the economic impacts?
- How are they supporting each other, even when they can't be together?

TO TAKE THE SURVEY GO TO [HTTPS://AIFS.GOV.AU/FIA-SURVEY-COVID-19](https://aifs.gov.au/fia-survey-covid-19)

## HARNESS ARTIFICIAL INTELLIGENCE AND TAKE CONTROL OF YOUR HEALTH

Media Release - 22 May, UniSA

Sedentary behaviours, poor sleep and questionable food choices are major contributors of chronic disease, including diabetes, anxiety, heart disease and many cancers. But what if we could prevent these through the power of smart technologies?

In a new University of South Australia research project announced today and funded by \$1,118,593 from the Medical Research Future Fund (MRFF), researchers will help Australians tackle chronic disease through a range of digital technologies to improve their health.

Using apps, wearables, social media and artificial intelligence, the research will show whether technology can modify and improve people's behaviours to create meaningful and lasting lifestyle changes that can ward off chronic disease.

Chronic disease is the leading cause of illness, disability and death in Australia with about half of Australians having at least one of eight major conditions including CVD, cancer, arthritis, asthma, back pain, diabetes, pulmonary disease and mental health conditions.

Nearly 40 per cent of chronic disease is preventable through modifiable lifestyle and diet factors.

The research will assess the ability of digital technologies to improve the health and wellbeing across a range of populations, health behaviours and outcomes, with a specific focus on how they can negate poor health outcomes associated with high-risk events such as school holidays or Christmas (when people are more likely to indulge and less likely to exercise); where technology could better track the activity among hospital inpatients, outpatients and home-patients (to help recovery from illness and surgery, leading to improved patient outcomes); and how new artificial intelligence-driven virtual health assistants can improve health among high-risk groups, such as older adults.

Lead researcher, UniSA's Associate Professor Carol Maher, from UniSA's Alliance for Research in Exercise, Nutrition and Activity says the research aims to deliver accessible and affordable health solutions for all Australians.

"Poor lifestyle patterns – a lack of exercise, excess sedentary behaviour, a lack of sleep and poor diets – are leading modifiable causes of death and disease in Australia," Assoc Prof Maher says.

"Technology has a huge amount to offer in terms of improving lifestyle and health, especially in terms of personalisation and accessibility, but it has to be done thoroughly and it has to be done well. Research plays an important role in helping understand the products that are most effective, which will see us working with existing commercial technologies and applying and testing them in a new way, as well as developing bespoke software for specific, unmet needs."

"The great advantage of technology-delivered programs is that with careful design, once they are developed and evaluated, they can be delivered very affordably and on a massive scale. If we are to make any change in the prevalence of chronic disease in Australia, we must plan to do it en masse."

The research aims to bridge the gap between academic rigour and commercial offerings so ensure that every Australian has access to the health supports they need.

"One of the challenges we face is that many people who could benefit from digital health technologies are intimidated by them – for example, older adults who are not that comfortable with technology, or health professionals who are just used to doing things a certain way," Assoc Prof Maher says.

"Change can be hard, but when we're making leaps in the right direction to improve lifestyle and health of the Australian community, these changes are worth considering."

## 7 tips to help kids feeling anxious about going back to school

*The Conversation*  
27 May

As COVID-19 lockdown measures are lifted, some children may experience social anxiety about the prospect of returning to school.

Read more at <https://theconversation.com>

## CHILD'S PLAY LOST IN PANDEMIC FEAR

Media Release - 22 May, Flinders University



Social and community disruptions caused by the COVID-19 restrictions could have a lasting effect on child wellbeing, Flinders University researchers warn.

While health, safety and education responses are the focus of restrictions, the needs of childhood independence, self-determination and play are less acknowledged, Flinders University experts explain in a new publication.

"Play is a key aspect of children's wellbeing from their perspectives," says lead author Jennifer Fane, a PhD candidate now based overseas. "The closure of playgrounds, schools and the fear and worry associated with being in public spaces has likely had significant impacts on children during this time."

"As children return to school, and life starts to resume as it did pre-COVID-19, focus and attention

to children's opportunities for play – and their ability to exercise reasonable 'agency' during this time of significant transition – are two key aspects that can support their wellbeing during this difficult time."

While everyone's freedoms have been impacted by COVID-19 pandemic, children's agency, or ability to make choices and decisions within adult-imposed constraints, has never been more apparent.

"Young children interviewed in the study told us of the importance to their lives of trying new things and having a say about play," says Flinders Professor of Public Health Colin MacDougall, a co-author on the *Child Indicators Research* paper.

"As the world takes baby steps to ease these life-saving restrictions, and move into an uncertain future, we must take the time to think about very young children. This research can be used to help chart a course for the multiple transitions these children are undergoing."

Ms Fane, whose PhD at Flinders focused on communicating with preschoolers, says these perspectives can support child wellbeing in future, including as government restrictions on people's boundaries affects where children play and how much they can have a say.

The article, 'Preschool Aged Children's Accounts of their Own Wellbeing: are Current Wellbeing Indicators Applicable to Young Children?' (May 2020) by J Fane, C MacDougall, J Jovanovic, G Redmond and L Gibbs has been published in *Child Indicators Research* <https://doi.org/10.1007/s12187-020-09735-7>.

## NEW RESEARCH WILL SHINE A LIGHT ON YOUNG EMERGENCY SERVICE VOLUNTEER MENTAL HEALTH

A new project on the mental health and wellbeing of young adult emergency service volunteers is starting through the Bushfire and Natural Hazards CRC's Tactical Research Fund. Supported by the Hospital Research Foundation and led by Dr Amanda Taylor from the University of Adelaide, *Maintaining positive mental health and wellbeing for young adult emergency service volunteers* is aiming to deliver a valid, practical and usable framework for supporting mental health in 16–25 year old emergency service volunteers.

The research will tackle mental health outcomes in young emergency services volunteers to minimise the short- and long-term impacts of exposure to potentially traumatising events. This will maintain and promote mental health and wellbeing more generally.

Within a 12-month timeframe, this project is set to provide an understanding of what is already being done within volunteer emergency services agencies to support the mental health of young adult volunteers.

In addition, the research team will provide a framework to support the mental health of young emergency services personnel. This will involve a clear set of principles, recommendations and processes to guide actions that volunteers, organisations, families and other community supporters can take to support mental health and wellbeing in young adult volunteers and employees.

## FUTURED VIRTUAL LEARNING SERIES MEASURING STUDENT WELLBEING DIGITALLY THROUGH EVIDENCE BASED PRACTICE

On 17 June, ARACY CEO Penny Dakin will present at FuturED Virtual Learning Series exploring how educators, counsellors and school leaders can support their students' wellbeing from afar.

Specifically Penny's Presentation *Pulse check - Measuring student wellbeing digitally through evidence-based practice*, will:

- Introduce Pulse, the online tool informed by ARACY's Common Approach that captures how students are feeling in real time
- Explore the research and evidence-base that has informed this digital practice
- Assess the results from Pulse pilot studies and discuss the current use of the tool

Further information at <https://publicspectrum.co/events/futured-supporting-student-wellbeing/>

## 3 MINUTE THESIS NOW OPEN



For the first time ever, the annual 3 Minute Thesis ® event is going virtual. Eligible HDR Students are encouraged to participate by registering and submitting their research presentation as a recorded video. Registrations close Friday 19 June.

Further information go to <https://threeminutethesis.uq.edu.au/>

## SAHMRI Wellbeing and Resilience Centre

### Be Well Plan - Upcoming Public Facilitated Training Dates

#### SATURDAY:

30 May (10am to 12:30pm), 6, 13, 20 & 27 Jun (10am to 12pm) 2020

#### WEDNESDAY:

17 Jun (12pm to 2:30pm), 24 Jun, 1, 8, 15 Jul (12pm to 2pm) 2020

\*More workshop dates will be made available soon.

#### COSTS:

**Pay What You Want** to be apart of our live facilitated sessions with our experienced trainers to get the most out of your Be Well Plan.

To register go to <https://tickets.wellbeingandresilience.com/event/be-well-plan-2020>

### BECOME AN ORGANISATIONAL WELLBEING CHAMPION

SAHMRI WRC are also offering organisations the ability to secure dedicated Be Well Plan online sessions for their staff/members. Get in touch with at [bewellplan@sahmri.com](mailto:bewellplan@sahmri.com) to find out more.

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  - Contribute your knowledge and expertise to make a difference

Support HDA into the future

If you are unsure as to whether you align with HDA research, please contact [anne.jurisevic@adelaide.edu.au](mailto:anne.jurisevic@adelaide.edu.au) prior to joining.

**JOIN HERE**

**<https://health.adelaide.edu.au/healthy-development-adelaide/get-involved>**