## **Healthy Development Adelaide**

A Research and Innovation Cluster in South Australia

## Newsletter

Vol 14, Issue 1 – February 2018



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## Upcoming

## Conferences /

#### Scientific Meetings

#### 7 - 10 March Society for Reproductive Investigation - San Diego, US

#### 14 - 16 March Australian Early Development Census - Melbourne, Australia

17 - 20 March Endocrine Society - Chicago, US

25 - 28 March Perinatal Society of Australia and New Zealand - Auckland, New Zealand

#### 21 - 22 May Reproductive Health and Medicine - Vienna, Austria

2 - 8 June Sleep - Baltimore, US

#### 20 - 23 June

Australasian Society for Stem Cell Research - Melbourne, Australia

For further event info go to www.adelaide.edu.au/hda/events

To unsubscribe from event and news notifications contact HDA.

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- anne.jurisevic@adelaide.edu.au  $\boxtimes$

.... HDA Partners ....







THE UNIVERSITY



**Department for Education and Child Development** Women's and Children's Health Network

Fertility Specialists





## LATEST NEWS

#### HDA Travel Grant Awardees Congratulations to the following HDA research members who have been awarded a \$1,000 HDA Travel Grant each towards their conference travel this year, Jan-June. Jack Darby, School of Pharmacy and Medical Sciences, UniSA Mitchell Lock, School of Pharmacy and Medical Sciences, UniSA Dr Karen Best, Healthy Mothers Babies and Children, SAHMRI Dr Zohra Lassi, Robinson Research Institute, University of Adelaide Danielle Pollock, School of Nursing and Midwifery, UniSA Dr Ryan Rose, Robinson Research Institute, University of Adelaide Cecily Young, School of Psychology, University of Adelaide

Dr Dorota Zarnowiecki, School of Pharmacy and Medical Sciences, UniSA Dr Lucy Bell, Nutrition and Dietetics, Flinders University Next round opens in April, for July-December conference travel

### New HDA Members

**Dr Parvathy Venugopal**, Research Associate, Centre for Cancer Biology, SA Pathology & UniSA. Focus - acute myeloid leukemia

Dr Stephanie Centofanti, Postdoc Research Fellow, Behaviour Brain Body Research Centre, UniSA. Focus - psychology (sleep, cognition)

Kristy Kolc, PhD candidate, Adelaide Medical School, University of Adelaide. Focus *neurogenetics* (*psychology*)

Tara Shem, PhD candidate, Department Speech pathology, Flinders University. Focus - speech pathology (early childhood education)

Hulya Gilbert, PhD candidate, Urban and Regional Planning, UniSA. Focus - urban planning (children's mobility and sustainability)

Jesse Cheah, PhD candidate, Centre for Cancer Biology, SA Pathology & UniSA. Focus haematological malignancies

Michelle Plummer, PhD candidate, Robinson Research Institute, University of Adelaide. Focus - pregnancy and birth (cardiovascular disease)

Chelsea Reynolds, PhD candidate, Department of Psychology, Flinders University. Focus - psychology (children's sleep)

CHILDREN'S RESEARCH

FOUNDATION

#### HDA RESEARCH MEMBER PROFILE - KATE RIGGALL CENTRE FOR COGNITIVE & SYSTEMS NEUROSCIENCE, UNISA

Vol 14, Issue 1 – February 2018



Kate Riggall is a PhD Candidate in UniSA's Centre for Cognitive and Systems Neuroscience, under the supervision of Professor Ina Bornkessel-Schlesewsky and Dr Mark Kohler. She is supported by the Department of Education and Child Development and the Fraser Mustard Centre as the 2017 recipient of the Fraser Mustard Scholarship Scheme.

Kate received a dual degree in Science and Arts at the University of Queensland, majoring in Biomedical Science and specializing in Neuroscience. She then studied and worked at the UQ Centre for Clinical Research, in the Meinzer group. During her summer research scholarship, she collaborated with researchers in the field of neuroethics to conduct an interna-

tional survey of experts in non-invasive brain stimulation, which was published in Scientific Reports. In her Honours year she analysed brain imaging data from a combined transcranial direct current stimulation (tDCS) and language learning paradigm. Subsequently, she assisted in running several adult tDCS learning and cognition studies.

Her current research aims to investigate the relationship between home environment, brain activity, and cognitive/learning outcomes in children. Prior studies have shown that a child's home environment can influence cognitive abilities like memory and language, and therefore support or limit their learning and achievement. The study will investigate a potential EEG biomarker of healthy cognitive development which might eventually be used to identify children at risk of poor development and inform the timing and nature of interventions to support them. Kate is currently seeking schools in the Northern Adelaide Area to assist with the study by providing information to parents through newsletters or other school communication channels, to ensure the study includes a diverse range of students from beyond the local area. Please feel free to contact Kate if you are interested in the study or know of a school that would like to participate.

🖀 8302 4179 🛛 kate.riggall@mymail.unisa.edu.au

### **BE PART OF A SCIENCE EXPERIMENT!**

#### Call to educators: Offer your students a unique brain science experience!



Is your school looking for interesting, educational activities to offer their students outside of the classroom? Parents at your school can introduce their children to science by taking part in an experiment!

UniSA neuroscience researchers are currently running a study that will investigate the connection between home environment, brain activity and thinking and learning outcomes in children aged 6 to 10 years. Researchers are looking for a few schools in the Northern Adelaide Area to assist with the study by giving information out to parents through newsletters, noticeboards etc.

Previous research shows that faster 'alpha wave' electrical activity predicts intelligence in adults. PhD researcher Kate Riggall and a team from UniSA's Centre for Cognitive and Systems Neuroscience want to see if this is also true for children. "The alpha rhythm seems to be a kind of 'brain activity fingerprint'," Riggall says. "I want to figure out if we can use this 'fingerprint' to examine developing intelligence in children."

"This could be our window into the workings of healthy growing brains. It could help us discover what kinds of support our children need the most to nurture their cognitive development, so every child can reach their true potential in the classroom, and in life. We know that child development and learning is hugely significant in predicting life outcomes such as employment, health and well-being for adults, so anything we can do to support children at this age will have long-lasting benefits for both the individual and our society."

The researcher will record the children's brain at rest and during the thinking tasks using a non-invasive electroencephalography (EEG) 'thinking cap'. Parents will be asked to complete a questionnaire about their child's health to determine eligibility for the study, and those whose children are selected will be asked to fill in a few more online questionnaires about their child and family, all of which remain confidential. Researchers will book an appointment for a repeat testing session 12 months after the first visit.

The sessions will be held at UniSA's Mawson Lakes or Magill campuses, or at participating schools, and will take 3 to 3.5 hours. Participants will receive a \$100 gift voucher to compensate for time and travel costs. For more information about the study or if your school would like to participate, contact Kate Riggall (kate.riggall@mymail.unisa.edu.au).

## Frozen embryos result in just as many live births in IVF

#### Media Release - 11 January, University of Adelaide



Freezing and subsequent transfer of embryos gives infertile couples just as much of a chance of having a child as using fresh embryos for in vitro fertilisation (IVF), research from Ho Chi Minh City, Vietnam, and Adelaide, Australia has found.

In results to be published today (Thursday 11 January) in *The New England Journal of Medicine*, the research team shows that ongoing pregnancy rates and live births were equivalent in a group of IVF women implanted with frozen embryos compared with fresh embryos.

"Frozen embryo techniques are growing in popularity in fertility clinics worldwide. This is one of the reasons why our research is important for fertility clinicians and researchers, and of course couples who are hoping to have a child," says lead author Dr Lan N. Vuong from the Department of Obstetrics & Gynecology, University of Medicine and Pharmacy at Ho Chi Minh City, and My Duc Hospital, Ho Chi Minh City.

Dr Vuong's work was conducted in collaboration with Professor Ben Mol, from the University of Adelaide's Robinson Research Institute, a member of the South Australian Health and Medical Research Institute's Healthy Mothers, Babies and Children theme; and Professor Robert Norman, also from the Robinson Research Institute, University of Adelaide and a leading fertility unit, Fertility SA.

The study investigated almost 800 women who had infertility not related to polycystic ovarian syndrome (PCOS). Women were given one cycle of IVF, where either a transfer of fresh embryos occurred, or all embryos were frozen and one cycle of thawed embryos occurred subsequently without the use of IVF drugs.

After the first completed cycle of IVF, ongoing pregnancy occurred in 36% of women in the frozen embryo group, and in 35% of the fresh embryo group. Rates of live birth after the first embryo transfer were 34% in the frozen embryo group, and 32% in the fresh embryo group.

"Previous research has shown that women who experience infertility because of PCOS benefit from significantly higher live birth rates from frozen embryos in IVF procedures, but evidence was lacking for this approach in non-PCOS patients," says author Professor Mol.

"This new study shows that infertile women not suffering from PCOS have equivalent live IVF birth rates from frozen embryos, which is important news for infertile women worldwide. Our key finding is that freezing embryos for IVF is not harming a couple's chances of having a baby. After the first fresh embryo transfer, it will be possible to freeze the remaining embryos and transfer them one by one, which is safe and effective."

Professor Mol says that while many clinics are moving completely away from fresh embryo transfers, the freezing process adds additional costs in IVF and does not result in higher rates of live births. "Couples concerned about such unnecessary costs of freezing all embryos do not need to go down that path, and will still have the same live birth success rate," he says.

Dr Vuong says: "Our research results are specific to a common freezing method known as Cryotech vitrification, so it may not apply to all embryo freezing techniques currently being used. Further research will be needed to compare pregnancy outcomes and live birth rates from other embryo freezing techniques."

Professor Mol says the strong collaboration between the Australian group in Adelaide and Vietnamese researchers has helped to capitalise on and develop research strengths in both countries.

"The quality and speed of research emerging from the University of Medicine and Pharmacy at Ho Chi Minh City, and My Duc Hospital in Vietnam, has been exceptional. Infertility is a growing problem throughout the world, including Asia. We have been delighted to provide our expertise to what will become an increasingly important field of research in the region. The study took just over a year to recruit participants, which is unheard of according to Western standards," Professor Mol says.

# Acting out, acting their age or something more serious? Dealing with difficult behaviour in children

31 January - The Conversation

At some stage in every child's life they will exhibit defiant, impulsive or even disobedient behaviours.

## More focus needed on schoolyard bullies, not the victims, parents say

#### Media Release - 15 January, UniSA



Australian parents have called for firmer action against schoolyard bullies rather than focusing on making vulnerable children more resilient.

Just over 50 per cent of parents who responded to a recent UniSA study said their child had been bullied at school and were highly critical of how teachers addressed the problem. The study, by UniSA bullying expert Professor Ken Rigby, tracked parental attitudes towards bullying and the actions they believe are needed to tackle the issue in Australian primary and secondary schools.

Schools should focus more on changing bullies' behaviour by confronting them and applying appropriate sanctions, rather than encouraging victims to become more resilient, many parents suggested. Closer supervision of student behaviour in classrooms and the playground is also needed, parents say, as well as better communication between schools and parents.

"Finally, there was a call for schools to address the social and emotional skills of students who become bullies," Professor Rigby said.

Professor Rigby is a former teacher and leading international researcher on bullying in schools, with 25 years' experience in the field. His most recent study, published in the *Educational Review*, reveals attitudes

from 167 parents of both bullied as well as non-bullied children.

"The bulk of the reported bullying was non-physical, in the form of cruel teasing, being excluded and rumour mongering," Professor Rigby said.

Cyber bullying came next, followed by being hit, pushed or kicked. Sexual and racial harassment were the least common forms of bullying reported by schools and parents.

"It is clear from this study that parents of bullied children experience considerable distress and frustrating regarding the situation at their child's school. They believed that in 40 per cent of cases, the actions of the school to address bullying had either made no difference or created even more problems for their children."

Not surprisingly, parents of non-bullied children were less knowledgeable about their school's bullying policies but also more confident that any bullying incidents would be dealt with effectively.

Professor Rigby said that contrary to widespread belief, bullying in schools is on the decline due to the work that schools are doing to address it. Cyber bullying is increasing, however.

"All bullying should be seen in perspective," he says. Teasing does not kill you but around 30 per cent of bullying is extreme and potentially very harmful. The perception that bullying is increasing is because in the past it was hidden and not discussed. Now there is a lot more awareness of it," he says.

# New Gardasil 9 vaccine boosts teens' protection from HPV and cervical cancer by 23%

31 January - The Conversation

As 12 and 13-year-old boys and girls start a new school year, they will have access to the new, improved vaccine to protect against the human papillomavirus (HPV), which causes cervical cancer in women. While the previous Gardasil vaccine protected against 70% of cervical cancers, the updated Gardasil 9 version will protect against up to 93% of these. And compared to the three doses required with the previous regimen, only two are needed now.

In Australia, around 900 new cases are diagnosed and around 250 women die from the disease each year. But cervical cancer rates have halved in the past 30 years due to the high quality national Pap cytology screening program. Prevention against cervical cancer is the main aim of the Gardasil 9 vaccine. But HPV is also linked to a large proportion of anal, vaginal and head and neck cancers, and the vaccine offers protection for these too.

## Rise in preterm births linked to clinical intervention

#### Media Release - 18 January, University of Adelaide



Research at the University of Adelaide shows preterm births in South Australia have increased by 40% over 28 years and early intervention by medical professionals has resulted in the majority of the increase.

Published this month in Obstetrics and Gynecology, the study was led by the Robinson Research Institute at the University of Adelaide.

Research author, PhD candidate Dr Petra Verburg from the University, analysed statistics for 550,000 births in South Australia between 1986 and 2014.

"The rate of preterm births (birth before 37 weeks' gestation) increased by 40% from 5.1% in 1986 to 7.1% in 2014. Natural or spontaneous preterm births accounted for the majority of all preterm births during the 28 years of the study. They rose from 3.5% in 1986 to 3.8% in 2014 – only a modest increase," she says.

"However, 80% of the increase in the rate of preterm births has been due to medical professionals ending pregnancies prematurely. The rate of clinician-initiated preterm delivery increased from 1.6% in 1986 to 3.2% in 2014. Dr Verburg says, "Clinicians may initiate preterm delivery due to pregnancy complications, by either inducing labour or performing a caesarean section. Problems such as hypertension or impaired growth of the fetus are the reasons doctors initiate the majority of preterm births" she says.

While preterm birth rates have risen by 40%, the rate of stillbirths has fallen by 45% (4.2% - 2.3%) in the same time period.

Co-author and Academic Head of the Department of Obstetrics & Gynaecology at the Lyell McEwin Hospital and University's Robinson Research Institute Professor Gus Dekker says, "Currently, more than a quarter of the South Australian pregnant population is obese or morbidly obese. Additionally, more than half are 30 years of age or older."

"These factors increase the likelihood of major pregnancy complications and hence, increase the likelihood that these pregnancies will end with a clinician indicated preterm birth.

On the one hand, clinician-initiated preterm birth of growth restricted babies, or in cases of preeclampsia, may potentially prevent stillbirth, or maternal complications.

On the other hand, babies born following totally uncomplicated pregnancies at term, have the best long-term health. Babies born preterm have a higher risk of type II diabetes, obesity and cardiac problems in later life.

New developments in ultrasounds and blood tests which indicate how well the placenta is functioning, may hopefully help obstetricians decide what the best time is to initiate birth in complicated pregnancies," says Professor Dekker.

This research has been supported by the National Health and Medical Research Council (NHMRC).

# More children are starting school depressed and anxious - without help, it will only get worse

30 January - The Conversation

Starting school for the first time can be stressful. Children are suddenly thrown into a foreign environment, juggling the pressure of learning new academic skills and establishing relationships with peers. Some thrive, but others may need support through this transition.

Our study found that at the ages of six to seven, which is just after the time children start school, 14% of Australian children had noticeably high levels of emotional problems. Emotional problems generally refer to depressive and anxiety symptoms, somatic (physical) complaints such as headaches, and withdrawn behaviours.

## \$1.19 million for rare liver disorder in pregnancy

#### Media Release - 24 January, University of Adelaide



The University of Adelaide will lead an international, multi-centre project to help find the best treatment for a rare pregnancy complication that can cause increased risk of preterm and still birth,

and considerable distress.

The University has received a grant of \$1.19 million – announced today by Health Minister, the Hon. Greg Hunt – from the Australian Government's Medical Research Future Fund scheme.

"In pregnant women with severe early onset intrahepatic cholestasis of pregnancy (ICP), premature labour and delivery is often seen, and there's a three-fold increased risk of fetal distress and stillbirth, as well other pregnancy complications including pre-eclampsia and gestational diabetes," says project leader and chief investigator Professor William "Bill" Hague, of the University of Adelaide's Robinson Research Institute and the Women's and Children's Health Network.

"Although the risk of stillbirth is increased in ICP, it is still very rare. Obstetricians have difficulty in predicting the stillbirths and will often deliver the baby prematurely just to avoid this small risk, but thereby increasing all the other risks associated with pre-term delivery.

The associated itching that can occur can be extremely severe, leading to major skin damage from persistent, 24/7, profound and debilitating scratching, sometimes leading to very severe depression."

ICP is a metabolic disease leading to increased concentration of potentially toxic "bile acids" in the blood associated with dysfunctional metabolism in the liver during pregnancy. While 0.7% of women may develop mild ICP towards end of pregnancy, about one in every 1000 pregnant women develops a severe form of the disorder much earlier in pregnancy. The liver dysfunction can occasionally lead to jaundice in the mother.

"This is a prime example of how the University of Adelaide is leading the State in major national and international medical research projects that have a direct link to clinical outcomes," says Professor Mike Brooks, Deputy Vice-Chancellor Research at the University of Adelaide.

"It follows closely behind the \$23.2 million awarded in December and \$8.3 million in October by the National Health and Medical Research Council for new projects tackling cancer, heart disease and other significant health problems. Congratulations to Professor Hague and colleagues for this most recent grant success."

Treatment options for ICP are not well established and, although the disorder is recognised as often running in families, little is known about the genetics of the condition. There has also been very little study of the longerterm outcomes for affected children.

The multi-centre study will compare the clinical outcomes of two drugs – ursodeoxycholic acid (UDCA), which can help reduce the itching in pregnancy, as well as improve abnormal liver function, and rifampicin, which has been used for similar itching outside of pregnancy, but which, to date, has not formally been tested in ICP.

If rifampicin proves to be an effective agent in reducing adverse effects in ICP, either on its own or in combination with UDCA, it will then be possible to move to further trials to study the impact of the drugs in terms of pregnancy outcomes, in particular, on preterm birth and stillbirth.

Initially there will be seven clinical sites across Australia and one each in UK, The Netherlands and Sweden.

### What's ahead for education policy in 2018

29 January - The Conversation

As we see each year, funding is likely to dominate the headlines as major reforms across the early childhood, school, Vocational Education and Training (VET) and higher education sectors will be implemented.

But with the David Gonski-led panel set to deliver their final report and recommendations from the Review to Achieve Educational Excellence in Australian Schools, we look forward to education policy discussions extending beyond dollar values.

## Aussie kids at a standstill

#### Media Release - 30 January, UniSA



As thousands of school children return to classrooms across Australia this week, leading health experts are urging parents and schools to help children become more physically active.

Australian experts – including Dr Natasha Schranz, Co-Chair of Active Healthy Kids Australia (AHKA) at the University of South Australia (UniSA) - have contributed to a new report by the Australian Health Policy Collaboration (AHPC) at Victoria University which calls for all children to be supported to walk, ride or scoot at least some distance to and from school every day.

Active Travel: pathways to a healthy future urges governments at all levels to work together to enable children to be more physically active every day, by improving the physical environments around schools and by helping parents, schools and communities to support children to participate in active travel each day.

More than 70 per cent of Australia's children and 91 per cent of young people are not meeting the national recommendation to get 60 minutes of physical activity every day. A lack of sufficient physical activity places children and young people at significant risk of developing diabetes, cancer and heart disease. It also contributes to high body weight with one quarter of all children and 29 per cent of young people being overweight or obese.

Dr Schranz says the most recent AHKA Report Card on physical activity, grades Australia a D- for overall physical activity and a C- for active transport, with only one in five children aged 5-17 years meeting the national physical activity guidelines and less than 50 per cent of school aged children using active transport (such as walking, cycling or scooting) as their usual way of getting to and from school. "One of the easiest, economically sound and most effective ways to increase the activity levels of kids is through active transport but strong and clear leadership and commitment is required from local, state and federal governments. The policy paper today provides a clear road map for what needs to be done," she says.

Members of AHKA Youth Advisory Council, a way to engage young Australians and give them a voice when it comes to physical activity, know the issues that need to be addressed.

"When we asked the kids themselves, members of the Council provided some clear ways to help get kids moving on their way to school like better infrastructure, safer walking and cycling routes, increased promotion of active transport and getting rid of restrictive uniforms," Dr Schranz says.

The Active Travel: pathways to a healthy future report recommends a national infrastructure grants program to support and enable all schools, communities and local governments to address the barriers to active travel that affect individual school communities.

Director of the AHPC, Professor Rosemary Calder, says that as a nation, we have stopped moving. "Parents think they are protecting their children from potential harm by driving them to school. This isn't the case in the short term – children are much more likely to be injured being driven to school rather than walking or riding. Nationally we need to help parents and carers feel save about active travel for their children. For primary school children, setting up drop off zones some distance from each school so that children can walk independently under supervision at least some of the distance to school, would rapidly improve children's physical activity levels."

In November this year, UniSA with AHKA are hosting an international event '*The Movement to Move: Global Insights to Get Our Kids Moving*' to work towards sustainable solutions to the crisis in children's inactivity.

## Caesarean section versus natural birth - an obstetrician examines a new review

25 January - The Conversation

Births by caesarean section are rising, worldwide. The latest figures (2016) show that 25% of births in Western Europe were by caesarean delivery; in North America it was 32%, and in South America 41%. Given these statistics, it's not surprising that people are interested in new evidence that looks at the potential harms (and benefits) of this procedure.

## What is citizen science?



The Bob Hawke Prime Ministerial Centre and Australian Citizen Science Association, as part of #CitSciOz18, proudly presents a free public lecture on the topic "What is Citizen Science?" by **Dr Caren Cooper and Amy Robinson Sterling** 

Join international guest speakers, Dr Caren Cooper from North Carolina State University and Amy Robinson Sterling from EyeWire for an evening of wonder as you find out how *you* could discover a new species, find a new planet, monitor pollution with a smartphone, actively contribute to disaster relief in another country and map the brain.

*Citizen science involves the public participation and collaboration in scientific research with the aim to increase scientific knowledge.* 

Thursday 8 February, 6.00-7.30pm Allan Scott Auditorium, Hawke Building, UniSA City West Campus To register go to **http://e.mybookingmanager.com/E1129174736126503** 

### Australian Early Development Census National Conference



The 2nd National AEDC conference will be held in Melbourne on the 14-16 March 2018. *Hosted by the Telethon Kids Institute* 

The 2018 National AEDC conference is the second national conference to bring together a broad range of professionals to improve the lives of children and families across Australia.

An Australian Government Initiative Register before 4 February to secure early bird rates! for more information please visit <u>http://www.aedc.gov.au/about-the-aedc/</u> <u>aedc-national-conference-2018</u>

We invite presentations that have a focus on what works (or doesn't) in supporting children's development, and the impacts of different programs, service models or policies on children's outcomes.

Presentations are invited across four streams in : Place-Based Early Years Service Models : Early Education and Care Pathways : Highly Vulnerable Families : Health Systems

For further information about the AEDC, please visit www.aedc.gov.au If you would like further information about the conference, please contact Dr Yasmin Harman-Smith at yasmin.harman-smith@telethonkids.org.au.

## **2018 Longitudinal Studies Masterclass**

Internationally-respected data analysis expert **Professor Jonathan Sterne** (UK) will present the 2018 Longitudinal Studies Masterclass for Australasian researchers and academics.

The Masterclass offers participants:

- specialist professional development through practical sessions showcasing real-world data analysis
- an opportunity to connect with other world-leading academics and longitudinal researchers
- the chance to be part of a stronger community of practice having a greater positive impact on the lives of young Australians.

The Masterclass is being held **19-22 March** in Byron Bay, NSW, and includes presentations, practical lab sessions, the launch of an Australasian lifecourse portal, guest speakers, cohort networking, an update on the latest Australian Report Card, and much more.

For further info go to https://www.aracy.org.au/events/event/LSN-Masterclass-18

## Autism SA Conference Series Happiness, neuroharmony and the predictive mind

#### HAPPINESS, NEUROHARMONY AND THE PREDICTIVE MIND

Presented by Dr Peter Vermeulen PhD, offering a new perspective and providing techniques and strategies for effectively supporting people on the autism spectrum.

Monday 26 February, 9.30am-4.15pm – MORPHETTVILLE (SOUTH AUSTRALIAN JOCKEY CLUB)

#### WHO SHOULD ATTEND?

Individuals on the spectrum, family members, care givers, educators, professionals - anyone who is striving to achieve improved outcomes for themselves or for individuals on the autism spectrum. If this sounds like you, don't hesitate!

Register online at www.autismsa.org.au and follow the links to the 2018 Autism Conference Series or email conferences@autismsa.org.au

## ARACY Webinar series Parents as contributors to service design and implementation

**Parents as contributors to service design and implementation** presented by Paul Prichard, M'Lynda Stubbs, and Alison Gatehouse

Wednesday 14 February, 12:00pm - 1:00pm AEDT

Venue: Your computer {login details will be sent following registration}

Cost: FREE for ARACY members / \$25.00 plus GST for non-members

#### Paul, M'Lynda, and Alison will be:

- presenting practical examples of engaging parents in the early stages of designing and realising new ways of working together within an integrated framework of early-years service delivery
- providing an overview of barriers and enablers of working this way
- discussing the involvement of parents, like Alison, who contributed to the creation of a child and family centre in Tasmania.

Learn more or register at https://www.aracy.org.au/events/event/aracy-lunchtime-learnings-14Feb

### World Cancer Day Community Walk

#### Supported by Flinders Foundation and Flinders University

#### Sunday 4 Feb, 7.45am-9am Central Plaza, Flinders University, Sturt Road, Bedford Park

Please join us on World Cancer Day for a stroll or brisk walk around the Flinders University lake, through the pine forest and down to Flinders Centre for Innovation in Cancer. The walk will be followed by a light breakfast.

World Cancer Day 2018 is a day for our community to come together to show our commitment making cancer а thing of the past. We can make а difference. to light breakfast will be provided, with tea and coffee available for purchase. A For further information visit www.fcic.org.au Michelle or contact Cox,

Michelle.cox@flinders.edu.au, phone 8404 2842.