



NEWSLETTER SUBMISSIONS

GET YOUR RESEARCH, NEWS, PAPERS, MEDIA RELEASES, RECRUITMENT TRIALS, EVENTS OUT THERE!!

Submissions by end May for our next issue out in June

Social Media submissions (X, FB AND LINKEDIN):

Submissions open anytime

Submissions must align with HDA:
We aim to promote, facilitate and enable multidisciplinary research to advance understanding of healthy development, ensuring the physical, psychological and social health of infants, children and adolescents.

OUR PARTNERS

PLATINUM



GOLD



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Flinders University

SILVER



Government of South Australia
Department for Education



Government of South Australia

Women's and Children's Health Network



Women and Kids



Government of South Australia
Preventive Health SA



Government of South Australia
Department for Child Protection



BRONZE



NEW HDA PARTNER WOMEN'S & CHILDREN'S HOSPITAL FOUNDATION



Women's & Children's Hospital Foundation

The Women's & Children's Hospital Foundation (WCH Foundation) improves the health and wellbeing of women, children and families under the care of the Women's and Children's Health Network (WCHN) and beyond, through a strong focus on health and medical research, and evidence-informed improvements to healthcare.

The WCH Foundation contributes more than \$2.5 million annually to health and medical research led by South Australian institutions and researchers, through the Bloom Research Program, scholarships, fellowship and various other specific-purpose research funding schemes such as the Health Translation SA MRFF Catalyst Grant Scheme.

Through these research programs, the WCH Foundation is supporting healthy pregnancies through research focusing on the use of prenatal supplements and the management of chronic kidney disease; helping babies to thrive through research into sustainable breastfeeding and safe use of antibiotics in pre-term infants; and ensuring a brighter future for children through research focused on the predictors and treatment of paediatric brain cancer, the prevention and management of infectious and respiratory diseases, and family-focused interventions for eating disorders.

We work closely with our partners, including the Women's and Children's Hospital and Health Network, academic and research institutions, and Health Translation SA to ensure that the evidence generated through our research program is translated into positive changes to health systems, policy and practice.

The WCH Foundation is pleased to be joining Healthy Development Adelaide (HDA) as a partner organisation, strengthening our support and connection with the maternal and paediatric research community in SA. We look forward to seeing you at a HDA event soon!

For more information, including research funding opportunities, visit <https://wchfoundation.org.au/the-impact-we-make/medical-research/>, or contact research@wchfoundation.org.au to join our research mailing list.

HDA PARTNER NEWS WOMEN'S AND CHILDREN'S HEALTH NETWORK

Women's and Children's Research News

The Women's and Children's Health Network (WCHN) has launched a new research e-newsletter, the Women's and Children's Research News, to promote WCHN research and research-related activities both within the Network and to the wider community. Find out more and read the newsletters here: <https://www.wchn.sa.gov.au/research>

SAVE THE DATE: 2024 WCHN Research Week

After the huge success of 2023 Research Week, an even stronger line up is being planned for 2024, and proudly sponsored by the Women's & Children's Hospital Foundation. Please put the following dates in your calendar.

Research Community Day at the WCH: Wednesday 6 November

Research Symposium at the Adelaide Oval: Thursday 7 and Friday 8 November

HDA PARTNER NEWS PREVENTIVE HEALTH SA

Establishment of Preventive Health SA



**Government
of South Australia**

Preventive Health SA

Investment in preventive health measures can help significantly reduce the amount and severity of preventable chronic disease, mental illness and injuries, not only reducing its impact on individuals and communities, but also contributing to building a sustainable health system as a whole.

Preventive Health SA has now been established, which progresses the South Australian Government's election commitment to create a new and independent prevention agency with a mandate to develop evidence-based programs and policies to keep South Australians healthy.

Preventive Health SA brings together Wellbeing SA and the former tobacco, vaping, alcohol and other drug population health and policy components of Drug and Alcohol Services SA (DASSA), consolidating South Australia's key prevention functions into one single independent agency.

The prevention priorities for the agency include obesity, tobacco, vaping, mental health, suicide prevention, alcohol and other drugs, and the social determinants of health. The initial activities to support the new agency include the creation of a Preventive Health SA Establishment Advisory Council, and the drafting of a Bill for the establishment of Preventive Health SA in legislation to give perpetuity to preventive health in South Australia.

Find out more about Preventive Health SA here: www.preventivehealth.sa.gov.au

HDA PARTNER NEWS SAHMRI WOMEN AND KIDS

SAHMRI stars honoured in NHMRC 10 of the Best

The NHMRC announced the fifteenth edition of its '10 of the Best' series, showcasing the most impactful research projects completed in 2021 that were funded by the NHMRC grant program, and which have significantly contributed to improving human health.

Professor Maria Makrides and **Professor Robert Gibson** made the list for their project, 'Food for Future Australians', based on redefining the nutritional requirements for a range of nutrients, primarily omega-3 fatty acids.

From 2013 to 2019 they conducted large-scale clinical trials with pregnant women, developed new technology to gather and assess blood samples more cheaply and produced findings that have already had a profound impact. They discovered that low intakes or blood status of omega-3 fatty acids (fish oil) are associated with increased risk of preterm birth and that low-cost supplements lower this risk. They also proved that babies who are born very premature, who are given omega-3 fatty acids, will experience better cognitive function. Prior to this project, the role of nutrition in preventing preterm birth and in brain development after birth wasn't clearly established.

"We've demonstrated that by five years of age, supplements will have improved their IQ and recovered about 30% of what they've lost by being born very preterm," Prof Gibson said.

Team: Dr Andrew McPhee, A/Prof Carmel Collins, Dr Karen Best, A/Prof Lisa Yelland, Dr Thomas Sullivan and Dr Jacqueline Gould.

HDA Member News



Congratulations to our **HDA Co-Convenor, A/Professor Zohra Lassi**, NHMRC Emerging Leader Fellow, University of Adelaide. Zohra will be inducted into the Sigma 2024 International Nurse Researcher Hall of Fame.

30 Honorees will be inducted during Sigma's 35th International Nursing Research Congress in Singapore on 27 July.

Healthy Development Adelaide (HDA) 20th Anniversary Research Afternoon Wednesday 16 October 2024

*** ABSTRACT CALL OPEN ***

HDA welcomes your submission and we look forward to celebrating our 20th Anniversary with you.

Eligibility:

Open to PhD students, EMCR researchers (0-10 years post PhD) and Industry / Government / NGO undertaking basic or clinical, biomedical or social science research in developmental health, disability, resilience or disease in pregnancy, infancy, childhood or adolescence.

You must be a current member of HDA to submit an abstract for the HDA Research Afternoon and be eligible for presentation prizes. We welcome new members, and you can join when submitting your abstract. Membership is \$30 (excluding GST) for 1 year or \$60 (excluding GST) for 3 years and you can join up here: <https://health.adelaide.edu.au/healthy-development-adelaide/get-involved>

Our Research Afternoon will include two sessions for short oral presentations followed in the evening by the 20th annual Oration. There will be no concurrent sessions, allowing our audience to see the breadth of research across HDA and ensuring that you as a presenter get a good audience.

Prizes:

Prizes will be awarded to the best presenter in each category:

- Best PhD presentation,
- Best EMCR presentation, and
- Best Industry/Government/NGO presentation (PhD not essential)

Selection process:

Applicants will submit two documents (in the one doc/pdf file):

- a 250-word abstract formatted as in the example below
- a one page track record of research/policy/practice achievements. PhD applicants must include evidence of their PhD commencement and EMCR applicants must include evidence of their PhD award date to enable eligibility to be assessed.

Applications will close at 5.00pm Wednesday 31 July 2024, and applicants will be notified by the end of August 2024. **Late applications will not be considered.**

Enquiries / submit applications to anne.jurisevic@adelaide.edu.au

Up to date information will be posted on our home page here: <https://health.adelaide.edu.au/healthy-development-adelaide/>

Abstract example...

Abstract to be a maximum of 250 words (excluding the title, authors and affiliations). Abstracts exceeding 250 words may not be eligible or be asked to resubmit.

Font Arial, size 11

Type Your Abstract Title Here.

Presenting Author EG¹, Author EG², Author EG¹, Author EG^{1,3}

¹Institution, City, Country

²Institution, City, Country

³Institution, City, Country

Email: email@example.com.au

Background: Please include background information here.

Methods: Please include method here.

Results: Please include results here.

Conclusions: Please include conclusions here.

HDA AND CHANNEL 7 CHILDREN'S RESEARCH FOUNDATION PHD EXCELLENCE AWARDEES FOR 2024

Congratulations to Yohannes Efa and Lisa Callahan our Healthy Development Adelaide (HDA) and Channel 7 Children's Research Foundation (CRF) PhD Excellence Award winners for 2024.

We thank the CRF for its ongoing financial support of the PhD Excellence Award and its partnership of 17 years helping HDA to foster research excellence and career development in SA. This is our 13th cohort and our two winners will each receive \$5,000 per annum for 3 years to augment their scholarships.



Yohannes Efa is a PhD candidate within the Cancer Epidemiology and Population Health group in Allied Health and Human Performance at the University of South Australia.

Yohannes's research project focusses on 'The impact of lifestyle factors on mental health outcomes of adolescents'.

This project considers factors like diet, physical activity, sedentary behaviour, alcohol, and tobacco use, as well as household, family, and country-level factors during the investigation. The study utilizes the Global School-based Student Health Survey (GSHS) data, which covers over 98 countries from various regions and socioeconomic backgrounds. This allows for cross-country comparisons and exploration of the influence of environmental factors. Ultimately, this research project will contribute to the existing knowledge on promoting healthy development during adolescence and the transition to adulthood.

This project is supervised by Dr Ming Li, Senior Research Fellow at the Cancer Epidemiology and Population Health Research group at the University of South Australia. Co-supervisors include Professor David Roder, Research Chair of Cancer Epidemiology and Population Health, University of South Australia and a Senior Principal Research Fellow at SAHMRI; and Professor Zumin Shi, Professor of Nutrition at Qatar University.

"I am grateful to HDA for considering my application and honoured to receive the HDA and Channel 7 Children's Research Foundation PhD Excellence award 2024. With this award, I can add to the understanding of the impact of lifestyle and environmental factors on the mental health related outcomes in adolescents, in addition, I can benefit from the training opportunity to build up my career pathway by liaison with HDA members and industrial partners," Yohannes.



Lisa Callahan is a PhD candidate within the College of Medicine and Public Health at Flinders University. Lisa's PhD forms part of the NHMRC-funded 'Pathways For Aboriginal and Torres Strait Islander Hearing Health: The PATHWAY Project'.

Lisa's research project focusses on 'Health professionals, resource use and the detection of otitis media in Aboriginal and Torres Strait Islander children'.

This research project aims to provide an understanding of the training and support needs, resource use and facilitators of program outcomes, as viewed by health professionals. This research will use Western and Indigenous research methodologies to achieve the study aims. There are potential applications of this research across allied health, nursing, medicine, public health, paediatrics and Indigenous health.

This project is supervised by A/Professor Jacqueline Stephens, an epidemiologist and co-supervised by A/Professor Eng Ooi an Ear, Nose and Throat Specialist from Flinders University. An adjunct team of supervisors include Samantha Harkus, an Audiologist from the National Acoustic Laboratories; Patrick Sharpe, Executive Officer of Far West Community Partnerships, an Aboriginal-led organisation focussed on social change.

"I am exceptionally grateful to Healthy Development Adelaide and the Channel 7 Children's Research Foundation for their support of this project. My hope is that this research will contribute to improved ear health services for Aboriginal and Torres Strait Islander children and enhance support systems for health professionals involved in this space."

HDA WOMEN'S EXCELLENCE IN RESEARCH AWARD WINNER 2024

Congratulations to our HDA Women's Excellence in Research Award winner for 2024 - Dr Dorothea Dumuid



This Award recognises and celebrates excellence of research achievement by women working in the field of developmental health.

Dr Dorothea Dumuid is a Senior Research Fellow within the Alliance for Research in Exercise, Nutrition and Activity (ARENA) in Allied Health & Human Performance at the University of South Australia.

A major focus of Dorothea's research is exploring what a healthy balance of lifestyle behaviour looks like for children and young people. This research has underpinned the design of lifestyle interventions and the development of public health guidelines on sleep, physical activity and sedentary behaviour.

Dorothea has shared research findings in a variety of community publications, 12 press releases, and 11 TV/radio interviews. Her interactive web app to personalise optimal time use was the subject of a Channel 9 news story and an article in The Conversation (20K reads). Her research has impacted public policy where she has been an invited member of the Guideline Development Group for the Australian 24-Hour Movement Guidelines for Children and Young People (2018-2019). She has worked with UN agencies (WHO, UNESCO, UNICEF), including a visit to WHO headquarters in Geneva in 2023 where she led the development of a policy brief for their Health Promoting Schools Programme.

Dr Dorothea Dumuid will receive \$1,000 and an award certificate and will present her research work at an upcoming HDA event.

Celebrating 20 Years in 2024 HDA Scholars - Where are they now?

We thank the Channel 7 Children's Research Foundation for their financial support for the Scholars program and the PhD Excellence Awards.



Dr Luca Prisciandaro, 2009 2nd cohort

Luca is currently the Acting Managing Director of Children's University Australasia and Africa, a program run by the University of Adelaide to promote equity of educational opportunity and establish new pathways to higher education for students aged 5-18. Luca's PhD project focused on Identifying probiotics that can provide beneficial therapy for chemotherapy-induced mucositis, and was mentored by supervisors Professor Gordon Howarth (University of Adelaide / WCHN), Dr Mark Geier (SARDI), Dr Adrian Cummins (QEH), and Prof Ross Butler (UniSA).



Dr Zhi Yi Ong, 2009 2nd cohort

Zhi Yi is a Senior lecturer and ARC Future Fellow in the School of Psychology at the University of New South Wales. Her current research focuses on understanding the neurobiological mechanisms of appetite control and addiction. Zhi Yi's PhD project focused on determining whether being exposed to maternal junk food diet during fetal life leads to altered development of the central reward pathway, and was mentored by supervisors Professor Beverly Muhlhausler (University of Adelaide) and Professor Caroline McMillen (UniSA).



Dr Dorota Zarnowiecki, 2009 2nd cohort

Dorota is a Research Coordinator at the University of South Australia, working across the UniSA Research Office and Allied Health and Human Performance Unit. Dorota's PhD project focused on exploring relationships between socioeconomic position and children's dietary intake to inform intervention design, and was mentored by supervisors Dr Jim Dollman and Dr Natalie Parletta (UniSA).

To read more on our Scholars career paths go to: <https://health.adelaide.edu.au/healthy-development-adelaide/our-people/celebrating-20-years-in-2024>

HDA PAST EVENTS

Healthy Development Adelaide (HDA) forum on Gaming and LEGO® robotics with autistic students: Learnings and outcomes was held on Thursday 8 February and chaired by **A/Professor Pammi Raghavendra** (former HDA Co-Convenor), Disability and Community Inclusion, College of Nursing and Health Sciences, Flinders University.

OUR SPEAKERS

Dr David Hobbs, Senior Lecturer, College of Science and Engineering, Flinders University and **Kimberly Steele**, Leader, Personalised Learning, Blackwood High School - *Outcomes of a LEGO® Robotics program with Autistic students*.

Dr Abi Thirumanickam, Lecturer, Speech Pathology, School of Allied Health Science and Practice, University of Adelaide and consumers **Mickey Burrows** and **Harry Bhavsar** - *The Minecraft™ Project: A pilot study*.



Healthy Development Adelaide (HDA) forum on Reframing Challenges to Child Development: Inclusion, Participation and Transformation was held on Thursday 7 March and held in conjunction with our partner organisation Flinders University. This forum was chaired by **Professor Joanne Arciuli** (HDA Executive Committee member), Lead: Communication, Cognition, and Wellbeing Research Group, College of Nursing and Health Sciences, Flinders University.



OUR SPEAKER

Professor Clare Wood, Director, Centre for Research in Language, Education and Developmental Inequalities, Nottingham Trent University, Nottingham, England.

Pic l to r: Jo Arciuli and Clare Wood

HDA MEMBER PROFILE - DR RUDRA BHATTACHARJEE UNIVERSITY OF ADELAIDE



Dr Rudrarup (Rudra) Bhattacharjee started his PhD journey at Professor Jozef Gecez's Neurogenetics Group within the Adelaide Medical School of the University of Adelaide in February 2020. He secured the prestigious Australian Government Research Training Program International Scholarship to support his doctoral studies.

During his PhD tenure, Rudra directed his efforts towards the development and characterization of a novel mouse model relevant to an transcription-mRNA export protein THOC2 Intellectual Disability Syndrome. His contributions in this domain culminated in the publication of his research findings in *Nature Communications* (see media release on page 11). Moreover, Rudra's work garnered acclaim at numerous national and international scientific gatherings, including

presentations at distinguished events such as The Society for Neuroscience Conference in the United States in November 2022, which boasted an attendance of approx.. 28,000 delegates from across the globe. Additionally, he presented his research work at the International Congress of Genetics in 2023, an esteemed genetics conference held once every four years.

Rudra got his PhD award in February 2024 and is currently engaged in his Postdoctoral Research studies as a member of Professor Jose Polo's Group at the Adelaide Centre for Epigenetics and the South Australian Immunogenomics Cancer Institute (SAiGENCI). In this capacity, he will be investigating mechanisms of childhood developmental disease (both neurological and paediatric brain cancer) utilizing stem cells and organoid models, with an aim to advance the understanding of mechanism of these diseases and paving a way towards developing potential therapeutic strategies.

BECOME A HDA MEMBER TODAY ...

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.

Membership benefits

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

If you are not involved in research or are part of the general community not to worry as we also welcome your membership and support. We would love to have you be a part of our network!

1 year for \$30 or 3 years for \$60 (excluding GST).

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

Natasha Stott Despoja AO to lead Royal Commission into Domestic, Family and Sexual Violence

Media release - 4 March, Government of South Australia



Respected South Australian advocate, author, former diplomat and Senator, Natasha Stott Despoja AO has been appointed to lead the state's Royal Commission into Domestic, Family and Sexual Violence.

Ms Stott Despoja is highly qualified to undertake the role of Royal Commissioner.

In July 2013, she was named the founding Chair of Our Watch, the national foundation to prevent violence against women and children. She was appointed life patron of Our Watch in August 2022.

Ms Stott Despoja served as national Ambassador for Women and Girls from 2013 to 2016. She was a member of the World Bank's Gender Advisory Council from 2015 to 2017.

She is currently a member of the United Nations Committee on the Elimination of Discrimination Against Women, and served on the 2017 UN High Level Working Group on the Health and Human Rights of Women, Children and Adolescents.

A former Leader of the Australian Democrats and Senator for South Australia, Ms Stott Despoja is also the author of the book "On Violence".

The Royal Commission is expected to take 12 months, and will have powers to recommend policy, legislative, administrative and structural reform. It will formally commence on 1 July, however Ms Stott Despoja will imminently begin preliminary work.

The Royal Commission will examine five key themes, aligned with the National Plan to End Violence Against Women and Children 2022-2032:

- ◆ **PREVENTION:** How South Australia can facilitate widespread change in the underlying social drivers of domestic, family and sexual violence;
- ◆ **EARLY INTERVENTION:** How South Australia can improve effective early intervention through identification and support of individuals who are at high risk of experiencing or perpetrating domestic, family and sexual violence;
- ◆ **RESPONSE:** How South Australia can ensure best practice response to family, domestic and

sexual violence through the provision of services and supports;

- ◆ **RECOVERY AND HEALING:** How SA can embed an approach that supports recovery and healing through reducing the risk of re-traumatisation and supporting victim-survivors to be safe and healthy;
- ◆ **COORDINATION:** How government agencies, non-government organisations and communities can better integrate and coordinate efforts across the spectrum of prevention, early intervention, response and recovery.

The Royal Commission will have a strong focus on empowering the voices of survivors and will help shift community understanding and discourse about domestic, family and sexual violence.

The Royal Commission adds to the considerable suite of policies and reforms already in train by the Malinauksas Labor Government including:

- ◆ A commitment to legislate to criminalise coercive control with extensive consultation with community and the sector undertaken;
- ◆ Making the experience of domestic violence a ground of discrimination in the Equal Opportunity Act;
- ◆ Enshrining 15 days paid domestic violence leave for workers engaged in the state industrial system;
- ◆ Committing \$1 million to establish southern and northern DV prevention and recovery hubs;
- ◆ Providing \$800,000 to restore funding to the Women's and Domestic Violence Court Assistance Service for the next four years;
- ◆ Reinstating funding to Catherine House cut by the former government;
- ◆ Establishing the Housing Security for Older Women Taskforce knowing that domestic violence is a key factor in housing insecurity;
- ◆ Introducing laws to require high-risk domestic violence defendants who are not on remand to be electronically monitored on home detention bail;
- ◆ Ring-fencing a proportion of public housing for women escaping violence; and
- ◆ Engaging with the finance and real estate industries to ensure women do not bear the brunt of mortgages, loans and rent that go unpaid in a domestic violence situation.

Study shows screen time is replacing vital language opportunities for toddlers

Media Release - 5 March, University of Adelaide

A first-of-its kind study has found that for every minute of screen time toddlers are exposed to at home, they hear fewer adult words, make fewer vocalisations and engage in fewer back-and-forth conversations with their parents.

The research, led by Telethon Kids Institute Senior Research Officer and the University of Adelaide's Dr Mary Brushe, saw researchers track 220 Australian families over a two-and-a-half-year period to measure the relationship between family screen use and children's language environment.

The study part of Dr Brushe's PhD with the University of Adelaide saw researchers use Fitbit-like devices to measure the amount of electronic noise and parent-child talk surrounding children aged between 12 and 36 months. This included noise generated by screens viewed by the parent and/or child.

Worn at home by children for 16-hour periods at multiple points in time (when the children were aged 12, 18, 24, 30 and 36 months), the device used LENA speech recognition technology to reveal the number of adult words, child vocalisations and parent-child interactions that occurred during the recorded period.

In all, researchers coded more than 7,000 hours of audio to calculate the amount of screen time children were exposed to as opposed to other electronic noises.

"We wanted to understand how much screen time children were exposed to during the early years and whether that interfered with the amount of language these kids heard and spoke in their home," Dr Brushe said. We know the amount of talk and interaction children experience is critical for their early language development – this study highlights that screen time may be getting in the way of that."

The findings published in the *Journal of the American Medical Association Pediatrics* showed the more screen time children were exposed to, the less parent-child interaction they experienced during the critical early years.

"Our findings support the notion of 'technoference' as a real issue for Australian families, whereby young children's exposure to screen time is interfering with opportunities to talk and interact in their home environment. The results were most profound when children reached 3 years of age. Just one minute of screen time was associated with seven fewer adult words, five fewer child vocalisations and one less back-and-forth interaction."

Dr Brushe said the findings suggest children whose families follow current World Health Organization screen time guidelines – one hour a day for children aged 36 months could be missing out on up to 397 adult words, 294 vocalisations, and 68 conversational turns every day.

"We know, however both from our own data and from international estimates that children on average are exceeding these guidelines," she said. "Based on the actual average daily screen time for children in this study at 36 months 172 minutes, or just under three hours they could in fact be missing out on up to 1,139 adult words, 843 vocalisations and 194 conversational turns per day. What's also interesting is that the study did not necessarily capture parental use of mobile phones in the presence of their children. The devices only picked up noise associated with screen time – for example TV shows, videos or games. If anything, we have probably underestimated how much screen usage and associated 'technoference' is going on around children because we haven't been able to capture parents' silent screen-related activities, such as reading emails, texting, or quietly scrolling through websites or social media."

Families who took part in the study did not know at the time of recording that screen time was going to be measured. This analysis was done retrospectively, after parents' consent was sought.

"This meant we ended up with a more realistic view of young children's screen exposure because parents were not subconsciously altering their normal habits," Dr Brushe said.

It's not all bad news. Dr Brushe said that while screen time had become part of daily life for most people, there were ways to reduce potential impacts on children. "Parents and family members do need to think about what their child might be missing out on when they choose to turn on a screen, but it might be that they opt for interactive co-viewing as a way to reduce the burden of screen time or make a point of engaging in conversation when a screen is on."

"This might include singing along with theme songs, repeating phrases or questions from the screen, and using the content of a show as a conversation starter after the screen has been turned off. Interventions designed to support parents can educate them on high quality educational screen content that is age appropriate for their child and can support language learning and interaction."

The study, *Screen time and parent-child talk when children are aged 12 to 36 months*, was a collaboration with the University of Adelaide, the University of Oxford, and the Menzies Health Institute at Griffith University and can be read in JAMA .

DNA protecting gene's crucial role in brain disorders revealed

Media release - 13 March, University of Adelaide



University of Adelaide researchers now know more about a mysterious gene's role in maintaining healthy DNA – a crucial development that could lead to new treatments for life-threatening illnesses including neurodevelopmental disorders, some types of cancer and neurodegenerative diseases.

THOC2 is an essential gene for the development and function of brain cells but not much is known about the exact role it plays in normal brain development and neurodevelopmental disorders.

To find out more about its function, researchers at the University of Adelaide used gene editing technology to create the first mammalian model to examine THOC2's molecular pathology.

"We now know more than ever before about the role THOC2 plays in maintaining healthy DNA and the essential cellular processes that are impacted by this gene, resulting in neurodevelopmental disorders," said the University of Adelaide's Dr Rudrarup Bhattacharjee from the Adelaide Centre for Epigenetics, who was the first author on this study.

"Our findings show when THOC2's function is compromised by genetic mutations, normal brain development is impacted. This opens up new opportunities to explore ways to safeguard DNA and help patients with a THOC2-related disorder."

The findings have been published in *Nature Communications* and were part of a collaborative study into THOC2 involving researchers at SAHMRI, who played a key role in generating the preclinical model.

THOC2-related disorders typically affect males and are linked to developmental delays and intellectual disabilities.

Some of the characteristics of these disorders seen in human patients were also observed in the mouse model, including learning and memory deficits.

"In our preclinical model, THOC2's function was compromised and that allowed us to assess its impact on the brain. This revealed how a small change in the THOC2 protein can lead to an avalanche of consequences in the form of learning and memory problems, body movement and size," said University of Adelaide's Dr Raman Sharma, a senior co-author on this study from the Adelaide Medical School.

Further analysis also found the deletion of a small region of the THOC2 gene (towards its C-terminal end) resulted in DNA damage. In particular, it seemed to have a significant effect on the transcription process, where the DNA sequence of a gene is copied to build proteins. Cell death was also observed.

"Our work on the THOC2 gene and its new preclinical model will stimulate research and contribute to better health care," said senior/corresponding author of the study Professor Jozef Gecz, Head of Neurogenetics at the Adelaide Medical School.

"Recent studies have shown that certain cancer cells can become more vulnerable if they have less THOC2 and this is an avenue that could be explored in future studies, along with the role THOC2 plays in neurodegenerative diseases."

The research has received funding from the National Health and Medical Research Council's Ideas Grant.

How can schools make sure gifted students get the help they need?

The Conversation, 28 March

Earlier this month, the New South Wales government announced it would roll out programs for gifted students in every public school in the state. This comes amid concerns gifted school students are not achieving their potential. A previous review in 2019 estimated that 10% of the state's students were gifted but that up to 40% of those students were not meeting their potential. Other studies have suggested about 50% of gifted students are underachieving. Our new research found teachers tend to focus their tailored approaches toward helping students performing below standard, rather than their gifted peers.

Read the full story here: <https://theconversation.com/au/education>

Mixed messaging for mums on breast milk storage guidelines

Media Release - 23 March, Flinders University



Expressing or pumping breast milk is an important tool for mothers, especially those who face challenges with direct breastfeeding, but new research from Flinders University has found conflicting advice in the age of social media could be leading to harmful handling and storage practices.

“With 98 percent of mothers indicating they have expressed at some point, ensuring we have clear guidelines is vital for the safety and integrity of the breast milk and the child who drinks it,” says study author Associate Professor Amanda Muller from Flinders University’s College of Nursing and Health Sciences.

“However, what our study revealed was that confusing advice from professionals was forcing women to turn to online communities such as Facebook mothers’ groups, occasionally resulting in the promotion of unsafe practices.”

The researchers looked at the existing evidence for storage and handling, what online guidelines recommended, and what mothers themselves reported doing with their milk, and found sometimes the three did not match.

Analysing over 10,000 posts from an Australian Facebook community for women who exclusively expressed, the researchers found the three main themes of questions were ‘How should I store my expressed breast milk (EBM)?’, ‘How long can I store my EBM?’ and ‘How do I use my EBM?’.

“While there was generally good consistency and

agreement between community practices and recommendations for how to store the expressed breast milk, we found a number of discrepancies around storage times, reheating methods, and whether or not EBM should be discarded after a feed,” says Associate Professor Muller.

“Further analysis showed a number of factors influenced why mothers were making these decisions, including the high value placed on the milk, convenience, as well as cost, with these reasons sometimes leading to deviations from recommended guidelines, especially when it came to mums wanting to ensure minimal wastage.”

The authors say moving forward, stakeholders in maternal and child health must collaborate to update guidelines to align with evidence, provide comprehensive support, and empower mothers to make informed decisions about EBM handling and storage.

“We found in some cases, such as with recommended storage times or whether to scald milk before storing, the published guidelines were inconsistent or didn’t match the evidence, so it’s no wonder new mums would become confused and turn to like-minded peers for help,” says Associate Professor Muller.

“There was also a strong feeling that existing guidelines are overly ‘conservative’ leading to unnecessary wastage, highlighting that health care providers have a crucial role in empowering mothers by assisting them in evaluating online information and making informed choices. Ultimately, we need updated guidelines that align with current evidence and addresses concerns such as cost, convenience, and milk wastage. By ensuring access to accurate information and addressing the unique challenges faced by mothers, we can enhance the safety and efficacy of expressed breast milk practices.”

The paper “Community Practices, Published Guidelines, and Evidence Base Surrounding Breast Milk Handling and Storage: A Qualitative Study” by Cassandra Larobina, Amanda Muller, Isobel Templeton, and Linda Sweet is published in the journal *Breastfeeding Medicine*. DOI: 10.1089/bfm.2023.0273. No competing financial interests exist and no funding was received for this article.

Feeding young kids on a budget? Parents say the mental load is crushing

The Conversation, 21 March

Feeding babies and toddlers can be challenging at the best of times. But when families can’t afford enough food, let alone the recommended range of different coloured vegetables, or iron-rich meats, it’s tougher still. In our recently published research, parents told us how much effort they put in to feeding children when there is little money. They also told us how the ever-present juggle of budgets and the realities of family life strained relationships and increased their mental load.

Read the full story here: <https://theconversation.com/au/health>

Liquid crystal nanoparticles supercharge antibiotics for cystic fibrosis

Media Release - 27 March, University of South Australia



Cystic fibrosis is the most common, life-limiting genetic condition in Australia. It affects the lungs, digestive system, and reproductive system, producing excess mucus, infections, and blockages.

Now, thanks to a \$500,000 grant from Brandon BioCatalyst's CUREator incubator, through their CSIRO-funded Minimising Antimicrobial Resistance Stream, University of South Australia researchers are advancing the development of liquid crystal nanoparticle-formulated antibiotics to more accurately target and eliminate difficult-to-cure lung infections in people with cystic fibrosis.

Funded by the Medical Research Future Fund CUREator provides grant funding to support the development of Australian biomedical research and innovations.

The study will use a patent-protected platform technology, invented by UniSA's Centre for Pharmaceutical Innovation to establish new therapies for cystic fibrosis sufferers. UniSA will also work with the Cystic Fibrosis Airways Research Group at the Women's and Children's Hospital to advance the platform.

In Australia more than 3600 people live with cystic fibrosis with one in every 2500 babies born with the disease.

Lead investigator UniSA's Professor Clive Prestidge says that liquid crystal nanoparticles present a unique encapsulation and delivery system to improve the efficacy of antibiotics and overcome issues of antimicrobial resistance.

"When a person has cystic fibrosis, their body produces a sticky, thick mucus in the lungs which is prone to infection," Prof Prestidge says.

"Bacterial lung infections often require antibiotics, but with frequent infections and regular ineffective antibiotic use, bacteria are becoming resistant to treatments; the looming antimicrobial resistance (AMR) pandemic is a major threat to human health.

"When there is infection and blockages in the lungs, it's particularly hard for traditional antibiotics to reach their target. That's where liquid crystal nanoparticles can help.

"By overcoming the processes that cause drug resistance and uncontrollable infection, this unique delivery approach can better target sites in the body where conventional antibiotic therapies cannot penetrate."

Postdoctoral researcher and team member, UniSA's Dr Santhni Subramaniam says preclinical studies have already demonstrated excellent performance against such infections.

"Whether it's bacteria in urinary tract infections, bone infections or bacterial biofilms found in tissue wounds, sinuses, and lung infections, preclinical trials of liquid crystal nanoparticles have delivered very positive results," Dr Subramaniam says.

"We are now positioned to advance a nebulization approach for direct lung delivery.

"This is an exciting new technology that we hope will deliver significant improvement in people struggling with cystic fibrosis and other lung infections."

Is your child 'overscheduled?' How to get the balance right on extracurricular activities

The Conversation, 26 March

It's a weeknight, parents rush through the door from work, grab a snack, and then speed off in various directions to children's extracurricular activities. As they do, they are managing tired and hungry kids as they all move from one thing to the next. Sound familiar?

Read the full story here: <https://theconversation.com/au/education>

AIFS Conference 2024

AIFS Conference 2024 will be an experience that showcases important research, is a catalyst for national conversations, and charts a new course for the wellbeing of all kinds of families across Australia. The theme for the 2024 AIFS Conference is: **Families Thriving? Asking big questions. Influencing change.**

Learn from the expert and foster conversations on the big challenges and emerging issues for families. **Explore** how policies and practices need to change so that families can flourish in a rapidly changing world. **Connect** with like-minded individuals.

11-14 June, Melbourne Convention and Exhibition Centre

Find out more here: <https://www.aifskonference.com.au>

WHRTN Webinar Taking your research to the bedside

Research translation: Taking your research to the bedside

16 April, 11:30 AM in Adelaide

This webinar will focus on research translation, and give examples of how research findings can be used to drive changes in health care, including examples of knowledge into action, guideline development and policy-making, and ethical considerations. Our panellists will share lessons they have learnt in the process – especially what they would do again and what to avoid!

Register here: https://monash.zoom.us/webinar/register/WN_rNJG70W3Sxyv2wOALTFqiQ#/registration

University of Adelaide public lecture Healthier Societies

HEALTHIER SOCIETIES - Laying the pathway for change
Professor Ilona Kickbusch

Thursday 18 April, 5.30 - 7.00 pm (light refreshments to follow)
The Braggs lecture theatre, University of Adelaide

Professor Ilona Kickbusch, a former South Australian Thinker in Residence, will share her knowledge and expertise to address the challenge of building healthier societies and will outline a way forward that reinforces the critical role of health and health equity.

Register here: <https://events.humanitix.com/healthier-societies-laying-the-pathway-for-change>

FLINDERS INSTITUTE FOR MENTAL HEALTH & WELLBEING - ANNUAL LECTURE

Phones off while school's on: Evaluating the SA Mobile Phone Ban in Secondary Schools

A/Professor Daniel Dr King is a registered clinical psychologist and his research expertise is the study of digital technology-based problems, with a focus on online gaming, simulated gambling, and social media. He has authored more than 250 peer-reviewed publications, including the first book on DSM-5 Internet gaming disorder, *Internet Gaming Disorder: Theory, Assessment, Treatment, and Prevention*.

Thursday 11th April, 5.15pm for a 5.30pm start
Level 14 Event Space, Flinders in the City at Festival Plaza

Further info and register here: <https://events.flinders.edu.au/events/flinders-institute-for-mental-health-wellbeing-annual-lecture>