



2011 - ISSUE 1

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Nutrition seminar wrap-up

Indigenous Mental **Heal**th Textbook

Meet our new Director

Baby Bonus research

Cancer research equipment boost

New autism study

GRANTS AND AWARDS

Congratulations

In recent months, the Institute has been awarded a number of prestigious grants and awards to undertake cutting edge research into a range of diseases and disabilities. Congratulations to all of the recipients.

National Health and Medical Research Council Project grants

Professor Pat Holt, Dr Deborah Strickland: Respiratory viral infections as triggers of acute severe asthma exacerbations in atopics: mechanistic studies in an experimental model.

Professor Ursula Kees, Dr Alex Beesley: Targeting drug-resistance in paediatric Acute Lymphoblastic Leukaemia.

Dr Andrew Whitehouse: Prenatal and early postnatal risk factors for autism spectrum disorders.

Professor Ursula Kees, Alex Beesley: Role of connective tissue growth factor in the pathobiology of lymphoid tumours and response to therapy.

Associate Professor Helen Leonard, Dr Jenny Downs, Dr Peter Jacoby: Towards evidence-based care for Rett syndrome: a research model to inform management of rare disorders.



^{under the} MICROSCOPE

is produced by the Public Relations Office of the Telethon Institute for Child Health Research

 100 Roberts Road SUBIACO 6008

 T 08 9489 7777
 08 9489 7700

 www.childhealthresearch.com.au

If you have any comments on <u>Under the</u> MICROSCOPE please contact:

Tammy Gibbs Public Relations Manager ⊤ 08 9489 7963 E tammyg@ichr.uwa.edu.au

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2

Together with research partners at Princess Margaret Hospital and the UWA School of Paediatrics and Child Health, Institute researchers are also involved in the following NHMRC project grants:

Dr Lea-Ann Kirkham, Dr Selma Wiertsema: Evaluation of antibody levels and function in otitis-prone and healthy Australian children.

Professor Susan Prescott Dr Meri Tulic: Epigenetic programming of immune development in utero: role of the maternal environment in the allergy epidemic.

Dr Lea-Ann Kirkham, Dr Selma Wiertsema: Dynamics of Haemophilus haemolyticus and nontypeable Haemophilus influenzae colonisation in otitis-prone children.

Dr Rae-Chi Huang, Professor Susan Prescott: The effects of omega-3 fatty acids on novel anti-inflammatory metabolites and telomere length in early and later life: potential implications for long-term cardiovascular risk.

Professor Fiona Stanley, Glenn Pearson, Dr Amanda Langridge: Intergenerational determinants of fetal growth in Aboriginal Western Australians.

Australian Cancer Research Foundation Equipment Grant

Professor Ursula Kees, Dr Nick Gottardo along with researchers from Western Australian Institute for Medical Research, University of Western Australia, QEII Medical Centre, Royal Perth Hospital, Princess Margaret Hospital, Lions Eye Institute and Pathwest.

One of the nation's top 10

Associate Professor Wendy Oddy, head of nutrition research at the Telethon Institute, has been named in the nation's top 10 health and medical researchers for 2010.

Dr Oddy's research investigating the links between child nutrition and physical and mental health was recognised at the National Health and Medical Research Council's

Excellence Awards in Canberra on December 15. The awards are presented to the top 10 of almost 5,000 researchers nationally who applied for NHMRC funding this year.

Dr Oddy's research over the next four years will investigate the relationships between nutrition and the development of obesity, cardiovascular disease, type 2 diabetes and mental health functioning from birth to 20 years, using data from WA's ground breaking Raine Study cohort. This study will provide evidence for population interventions to improve child and adolescent mental health through the promotion of nutrition.

Congratulations Wendy!

National Health and Medical Research Council Career Development Award Associate Professor Wendy Oddy

National Health and Medical Research Council Training Fellowship

Dr Melissa O'Donnell

National Health and Medical Research Council Practitioner Fellowships

Associate Professor Tim Jones

Clinical Professor Steve Stick

BrightSpark Foundation 2011 Medical Research Fellowship

Dr Shelley Gorman: Investigating the effects of vitamin D deficiency *in utero* and early life in modulating allergic skin and lung disease.

2010 Western Australian Science Awards

Professor Fiona Stanley: Science Hall of Fame Inductee



Associate Professor Wendy Oddy with Professor Michael Good AO (Chair of the NHMRC) and Professor Warwick Anderson AM (CEO of NHMRC).

HEALTHY DEVELOPMENT

Birth rates rise after Baby Bonus payments

It was expected by some that the introduction of the Federal government's "Baby Bonus" payments would increase pregnancies in teenagers and those from disadvantaged areas. But researchers from the Telethon Institute have found that while fertility rates did increase across the board between 2004 and 2006, the most significant increases were among women from the highest socio-economic areas.

The results of the study, led by Dr Amanda Langridge, were recently published online in the *Journal of Epidemiology and Community Health.*

Institute Director and study co-author, Professor Fiona Stanley, said the findings contradict popular perception that the payments would increase pregnancies in teenagers and disadvantaged groups.

"What this study shows is that pattern of births in Western Australia changed after the introduction of the baby bonus payments, most particularly among women living in high socio-economic areas who previously had the lowest birth rates," Professor Stanley said.

"To me, this reflects more than just monetary factors. It also suggests a positive change in perception about the value of parenting, awareness of declining fertility with age and a growing debate in our community of the need to balance career and family roles."

The women contributing most to the increase were aged 20 to 29 years, and primarily living in areas of highest socioeconomic advantage characterised by a higher proportion of individuals with higher educational qualifications or in highly-skilled occupations.

In 2005, following the introduction of the Baby Bonus, there was a significant increase in births (7.4 per cent) compared to what could have been expected based on the trend between 1995 and 2004.

The analyses found that the overall birth rate increased from 52.2 births per 1000 women in 2004 to 58.6 births per 1000 women in 2006. The greatest increase in births were among women residing in the highest socioeconomic areas who had the lowest general fertility rate in 2004 (21.5 births per 1000 women) but the highest



in 2006 (38.1 births per 1000 women). There was also a small increase in the percentage of third (14.9 per cent to 15.3 per cent) and fourth or more births (9.4 per cent to 9.7 per cent).

Professor Stanley said the increase in fertility rates had urgent implications for maternal and child health services.

"More babies means we need more child health nurses, more schools and more early childhood professionals to support families – and many of these services are already struggling," Professor Stanley said.

"It's extremely important that governments invest in these vital areas as a priority to ensure all Australian children get a positive start to life."

OUR SUPPORTERS

Telethon's record result

Telethon 2010 was the biggest ever, with the people and companies of Western Australia generously getting behind the cause to raise \$9,237,539.

This brings the Telethon total since 1968 to \$103,781,220.

The Telethon Institute is a major beneficiary of Telethon, along with other WA children's charities, allowing us to continue our important research into the most costly and devastating childhood illnesses and diseases.

Institute Director Professor Fiona Stanley congratulated Channel 7 Perth and the Telethon team for this year's record result.



Institute Director Professor Fiona Stanley on the Telethon panel.

"The people of Western Australia have once again shown amazing support for Telethon. It is clear it holds a very special place in their hearts," Professor Stanley said.

"We are very grateful to be a major beneficiary. There's no doubt that Telethon's support of the Institute makes so much of our work possible.

"Our researchers are making discoveries in all areas of child health, from asthma to cancer to mental health, and those research findings directly help so many WA families."

3

INFECTIOUS DISEASE

New vaccine study against deadly dengue

When Lia Blom and her daughter visited northern Thailand on a working holiday, they never expected they would be coming home with a potential killer disease.

Working as volunteers at an elephant park, both contracted dengue fever and experienced what Lia described as the worst illness of her life.

Dengue fever is a mosquito-borne viral disease which causes fever, often with severe headache, vomiting, muscle and joint pains and skin rash. It can cause more severe symptoms and can be fatal, mainly in children.

The disease is now present in all tropical and sub-tropical regions of the world, including Australia in northern Queensland.

With more than half of the world's population living in areas at high risk of dengue infection, a vaccine, which currently doesn't exist, would be of great benefit.

The Institute's Vaccine Trials Group has recently completed the recruitment of 73 healthy adults for a trial of a new vaccine that aims to protect against all four strains of dengue.

The vaccine would not only benefit those living in affected areas but according to study leader, Associate Professor Peter Richmond, would be of great value to Australian travellers.

"Dengue fever is an increasing scourge in South East Asia and we have occasional outbreaks in northern Queensland," Dr Richmond said.

"A safe and effective vaccine would be of great benefit to our region, and provide

protection for Australians heading to these popular tourist destinations."

"At the moment there is no licensed vaccine available to prevent dengue disease and no specific treatment exists," Dr Richmond said.

"Controlling mosquito numbers is the only effective method of prevention at this time."

The vaccine is being trialled in eight centres around Australia and has been developed by one of the world's leading vaccine companies, Sanofi Pasteur.

UNDERSTANDING DISABILITY

New study confirms link between alcohol and birth defects

New research from the Telethon Institute has shown that women who drink heavily in the first trimester of pregnancy are four times more likely to have a child with certain types of birth defects.

Heavy drinking is classified as more than seven standard drinks in a week. A standard drink is just 100ml of wine.

Study author Dr Colleen O'Leary said the findings, which were published in the latest edition of the international journal Pediatrics, reinforced the need for health professionals to discuss alcohol use with women who are pregnant or of childbearing age.

"Nearly half of the pregnancies in the group of women in this study were unplanned which means heavy exposure can happen before a woman is aware she is pregnant," Dr O'Leary said.

"This means that prevention strategies will need to target not only pregnant women but also drinking at harmful levels and unplanned pregnancies among all women of child bearing age."

The analysis was based on data drawn from a randomly selected cohort of more than 4700 non-indigenous women who gave birth in WA between 1995 and 1997.

Dr O'Leary said the analysis showed no link between low alcohol exposure in pregnancy and birth defects.

"While this finding may provide some reassurance to mothers who unknowingly consumed alcohol before they knew they were pregnant, the best advice is still to follow the national guidelines that advise expecting mums to avoid alcohol in pregnancy," Dr O'Leary said.

The study was supported by a program grant from the National Health and Medical Research Council and Healthway.

ABORIGINAL CHILD HEALTH

Working together

A new book on social and emotional wellbeing has received so much interest that tens of thousands of copies are now being printed and posted to organisations throughout Australia and around the world.

Working Together: Aboriginal and Torres Strait Islander Mental Health and Wellbeing Principles and Practice, offers a high quality, comprehensive examination of issues and strategies influencing Aboriginal and Torres Strait Islander mental health and social and emotional wellbeing. It also offers new approaches to Indigenous mental health that acknowledge the importance of cultural identity and resilience as well as the pervasive effects of racism, and the disempowerment of colonisation and assimilationist policies. The book incorporates culturally specific clinical mental health assessment processes and culturally appropriate treatment interventions.

The Institute's Associate Professor Roz Walker was an editor of the book along with Nola Purdie and Associate Professor Pat Dudgeon. Several Institute staff also contributed to the book including Professor Steve Zubrick, Professor Sven Silburn, Dr Clair Scrine and Sue Ferguson-Hill. The book was developed by the Australian Council for Educational Research and the Institute's Kulunga Research Network, with funding through the Office for Aboriginal and Torres Strait Islander Health, Australian Government Department of Health and Ageing.

Visit our website to download pdfs of the individual chapters or the full book and you can also order a printed hard copy free of charge.

www.childhealthresearch.com.au/kulunga/working_together

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"Designed for practitioners and mental health workers, as well as students training to be mental health workers, I am confident that the publication of Working Together: Aboriginal and Torres Strait Islander Mental Health and Wellbeing Principles and Practice marks a watershed in the treatment of Indigenous mental health issues."

Tom Calma, Aboriginal and Torres Strait Islander Social Justice Commissioner

HEALTHY DEVELOPMENT

Parental fear leads to inactive 'cottonwool' kids

Children's development and wellbeing are under threat because their parents are fearful of strangers, according to new research.

Commissioned by VicHealth, the report led by Professor Stephen Zubrick from the Telethon Institute and Assistant Professor Lisa Wood, Deputy Director of UWA's Centre for the Built Environment and Health, reviewed evidence of parental anxiety as a barrier to children's physical activity such as walking or cycling to school and playing at parks.

"The evidence shows there have been substantial changes in Australian family life linked to work, employment, the extension of the lifespan, the lowering of the age-range for early childhood education and the need for care outside of the home," Professor Zubrick said.

"These factors, and changes to daily activity and routine, impart clear restrictions on where children can be left unsupervised, who can supervise them, the rules for transferring duty of care, and general tolerance for children having a 'freer range' of independent mobility."

The review found that parents often have distorted perceptions of 'stranger danger'. Such fear can curtail children's freedoms and physical activity.

"The negative impacts of parental fear and the resulting 'cottonwool' kids are increasingly being recognised as having adverse impacts on children, including less active lifestyles and increasing obesity levels," Assistant Professor Wood said.

"Children are also missing out on opportunities to develop important life skills that can be learnt through independent play and being allowed to move around within their neighbourhoods".

The researchers recommended strategies in building social cohesion; creating environments to promote active engagement; transport initiatives to promote walking and cycling; and empowering parents to be less fearful.



INFECTIOUS DISEASE

Listen Up!

The rate of ear infections in Australian Aboriginal children is among the highest in the world. More than 80 per cent of Aboriginal children have middle ear infections, or otitis media (OM), by one year of age. The rate of ear drum rupture from persistent ear infection in Indigenous children is 15 per cent, well above the World Health Organization threshold of four per cent, indicating a massive public health problem. Urgent action is needed to tackle the huge impact of ear infections on child development and learning, particularly in Aboriginal communities.

In a recent edition of the *Medical Journal of Australia*, some of Australia's leading experts in ear disease called for an ear and hearing taskforce to be formed, led by Indigenous researchers and community leaders.

This call was made following a workshop held earlier this year which aimed to enhance collaborations nationally and provide up to date information on ear health research in Australia - with a focus on ways to reduce the burden of ear disease in Australia.

Associate Professor Deborah Lehmann, head of Infectious Disease research at the Telethon Institute, said a comprehensive attack on the disease was needed.

"The more we delay the more children are suffering serious damage to their hearing that can impact on their future education, employment and quality of life," Dr Lehmann said.

"This must be an important focus if we are to close the gap in a range of outcomes for Aboriginal children."

Head of the Institute's Vaccine Trials Group, Associate Professor Peter Richmond, said more research into interventions to reduce ear disease was urgently required. "While vaccines have had some impact on serious infection in Aboriginal and non-Aboriginal children, more research is needed to improve their effectiveness in prevention of ear disease in all children. Better ways of evaluating this effectiveness also need to be developed.

"We also need to know more about which bacteria and viruses cause disease and how children develop immunity to these infections to be best able to combat it."

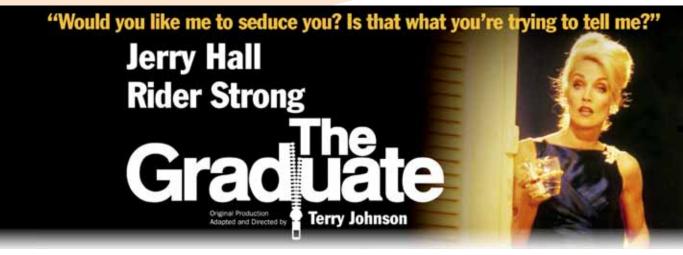
The Menzies School of Health Research Ear Health Research Program, led by Associate Professor Peter Morris, has conducted a number of

otitis media prevention and treatment trials.

Menzies Associate Professor Amanda Leach said more evidence is needed about the impact of hygiene measures on reducing ear disease.

"It's crucial that more is done to tackle the underlying environmental issues such as overcrowding in homes and exposure to cigarette smoke," she said.

The cost of treating OM in Australia is in excess of \$100 million per year. The fact that several OM focussed National Health and Medical Research Council project grants were successful this year raises hope that OM research is starting to be taken more seriously.



Thank you to property group Hawaiian and His Majesty's Theatre Foundation for giving the Institute the opportunity to sell charity preview tickets to the stage show, The Graduate. Each ticket sold went into the draw to win two tickets to the opening night and the VIP after-party with Jerry Hall and the lucky winner was Susan from Sorrento. hawallan



HIS MAJESTY'S THEATRE

6

STAFF PROFILE

Passionate new Director joins the Institute team

Our new Director of Academic and Research Services, Professor Moira Clay, has big plans for the future. She hopes to one day fill Australia's political 'top job', Prime Minister of Australia! For now, Moira says she has the "best job at the Institute" and is thrilled to be part of our team.

"My role is all about positioning the Institute at the forefront of research both nationally and internationally," explains Moira.

"This involves assisting individual researchers (at all levels) to maximise their success as well as liaising with relevant stakeholders about supporting the capacity of the Institute as a whole."

Moira joined the Institute in August 2010. One of the big factors in her decision to move across the country and join our team, was the opportunity to work with Fiona Stanley and the other outstanding research leaders at the Institute.

"I also saw there was a great opportunity to help the next generation of research leaders at the Institute to flourish and shine," says Moira.

Moira has been working in the area of research management for around 10 years but began her career in the lab.

"I did a PhD in cholesterol metabolism and then did 10 years of lab science after that in the US and in Adelaide.

"Ten years ago my career changed direction into research management. This was the best move I ever made as my aspirations and my personality were about supporting research as a whole and the benefits it can achieve for our health.

"Having a research background was critical for me to able to move into management."

Moira worked for the Heart Foundation for five years as their Research Manager and then moved into the medical research institute sector, working for Murdoch Childrens Research Institute in Melbourne and Children's Cancer Institute Australia in Sydney.

At the Institute, Moira hopes to learn, learn, learn!

"This is the main reason I decided to come to the Institute," she explains.

"I knew I could learn and contribute to issues such as translating research outcomes into the clinic, data linkage, pathways to health and disease in young people and, in particular, the critical issues affecting Aboriginal communities."

But it's Moira's goals for the long-term which see her aspiring for the position of Prime Minister.

"In order to achieve all the things I am passionate about, I think I need to have the 'top job'," laughs Moira.

"I am passionate about achieving a research-driven health system which is driving better health through new knowledge and application of that knowledge.

"I am passionate about education and giving all people access to the best education.

"I am passionate about seeing young Australians (in particular) realise their potential.

"I am passionate about closing the widening gap in social inequality in access to health and education.

"Last but not least, I am passionate about research and researchers."

The latter was reflected in Moira's commitment to the Australian Society for Medical Research (ASMR) in the role of President during 2003.

ASMR is the peak professional body representing Australian health and medical researchers and has led the way in public, political and scientific advocacy for research.

"I felt so proud to be able to step up and lead the society, which turns 50 this year," says Moira.

"I like research and the excitement of discovery and I also like researchers! They are good people and it fills me with great satisfaction to be able to help them in any small way that I can."

But Moira says a career in research is not easy and there are many times that good



researchers get 'knocked' by having good grants refused for funding.

"This is particularly hard for young researchers who are so keen to succeed.

"Managing disappointment, I would say is the biggest challenge in my job."

One of Moira's most impressive career achievements was successfully lobbying government for a \$50 million grant to fund a new research building in Victoria.

Seeking and securing support from a philanthropist in Sydney to start a new fund exclusively to fund the development of original research ideas by young researchers is also a major highlight.

Moira is loving her new life in Perth where she has been joined by her dog Bella and cat Coco.

But Moira's role with the Institute regularly takes her to the East Coast of Australia where she can catch up with family, friends and colleagues.

"I am always very excited to see my family and very proud about what wonderful human beings my nephew James and my nieces Kelly and Sarah are!"

Perth is allowing Moira to indulge in her many loves outside of work including travelling, gardening, reading, walking Bella, shopping, wining and dining with friends and scuba diving.

7

Contact details:

Professor Moira Clay mclay@ichr.uwa.edu.au

COMMUNITY SUPPORTERS

High tea raises essential funds for Rett syndrome

On Sunday 7 November, close to 500 parents and children enjoyed a delicious stand-up tea, with live music by Chris Murphy, face-painting and balloon sculpturing, all in aid of Rett syndrome research.

'High Tea for Rett syndrome' raised almost \$30 000 for the Institute's Rett syndrome research, led by Dr Helen Leonard.

Event organiser, Teresa Pracilio, is mother of two-year-old Kayla, who was diagnosed with Rett syndrome by Dr Leonard.

Teresa's involvement with Dr Leonard and her team inspired this outstanding fundraising event.

"I am absolutely delighted with the first Rett Syndrome Fundraiser that I organised and the monies raised at the High Tea.

"To see all the people at the event supporting Rett Syndrome Research was fantastic. To the girls that attended the event with Rett Syndrome I hope the monies will make a difference."

Rett syndrome is a rare but serious neurological disorder that affects around one in every 8,500 female births in WA. It is caused by a mutation in the *MECP2* gene on the X chromosome and there is currently no cure.

The Institute's AussieRett database collects comprehensive health, daily living and service provision information about all Australian girls born with Rett syndrome since 1976. Genetic and clinical information is also collected such as electroencephalographs (EEGs), electrocardiograms (ECGs) and bone densitometry. Video footage captured by families provides an extremely important and innovative source of information about movement issues in girls with Rett syndrome.

"The Australian Rett Syndrome Database AussieRett is the only ongoing worldwide population-based database of Rett syndrome and is making a major impact on the clinical understanding and management of Rett syndrome," said Dr Leonard.

"Funds from this event will help us to maintain this important and unique data collection."







Children and adults alike enjoyed a delicious high tea at the Novotel Langley in support of Rett syndrome research.

Community fundraising for the Institute

The Institute is delighted to have support from so many community groups who raise funds through various events and functions. We are indebted to supporters in community, social and corporate groups who choose the Institute as a beneficiary of their fundraising activity.

If your community, social or corporate group wishes to raise funds to support

the terrific work being undertaken by the Institute, please contact the Public Relations Office to obtain our Guidelines for Community Fundraising and a Registration Form, or see our website for additional information and some fundraising ideas. Taking part in a fundraising activity can help raise both funds and awareness of the Institute while building a sense of team work and achievement. Contact us about your community fundraiser:

Public Relations Office 08 9489 7779

pr@ichr.uwa.edu.au

www.childhealthresearch.com.au

Click on the community fundraising link in the Support Us menu

CANCER

New equipment to help kids with cancer

Inspired by four-year-old Elliot Parish, who is currently battling a brain tumour, a group of West Australian's climbed Mont Blanc in September to fund a state of the art 3D molecular imager.

'Elliot's Machine,' the only one of it's kind in WA, will help children's brain tumour researchers monitor how brain tumours grow.

Research leader Dr Nick Gottardo says the imager will greatly accelerate the pace of research and the process of finding more effective treatments for children affected with brain tumours.

"Elliot's Machine will fast track our research at the Institute by permitting real-time, noninvasive monitoring of brain tumour cells in laboratory

models of childhood brain tumours to determine the usefulness of new drugs," Dr Gottardo said.

Through collaborations with the pharmaceutical industry Dr Nick Gottardo and his team are assessing several promising novel drugs designed to target brain tumour specific molecules, which are required for the survival of brain tumour cells. Brain tumour cells are tagged with fluorescent colours which allows them to be seen using the 3D molecular imager.

The AHG Adventurers, led by Elliot's father Rick Parish and former West Coast Eagle Peter Wilson, came together from all walks of life to make a difference to sick kids.

Mr Parish said it was very satisfying to see the machine delivered and about to be put into action.

"We are excited about the future through our association with Telethon and the Telethon Institute for Child Health Research," said Mr Parish. "Next year our aim is to raise in excess of 2 million dollars."

Another cancer equipment boost

A cutting-edge cancer imaging facility, funded by a \$2.4million grant from the Australian Cancer Research Foundation (ACRF), will help specialist children's cancer researchers at the Telethon Institute to better understand how tumours grow. The PET scanner will enable researchers to investigate tumour progression in pre-clinical laboratory models.

In addition to researchers at the Telethon Institute, the facility will be used by cancer researchers at the Western Australian Institute for Medical Research, University of WA, QEII Medical Centre, Royal Perth Hospital, Princess Margaret Hospital, the Lions Eye Institute and Pathwest.

The head of the Institute's Division of Children's Leukaemia and Cancer Research, Professor Ursula Kees, said the imaging technology would accelerate the research program into brain tumours in children.

"The sophisticated technologies facilitate the study of early brain tumour formation, understanding the role of mutations and abnormal molecular pathways that are critical for brain tumour survival," said Professor Kees.

This ACRF-funded cancer imaging facility will expedite the process of finding more effective and less toxic therapies for children with brain tumours.





top: The climbers' inspiration Elliot Parish bottom: Rick Parish and Dr Nick Gottardo with Elliot's Machine.

OUR SUPPORTERS

Cooking by kids

The Institute is proud to be partnering with Compass Group, the world's leading food and support services company.

The Institute's involvement with Compass Group came about when, by popular demand from Compass staff, it was requested that the company donate their staff Christmas gift fund towards a worthy cause.

For Christmas 2009, Compass Group donated these funds to the Telethon Institute and the Kids Foundation.

In 2010, Compass Group's gift to their staff is particularly meaningful as they have all had a chance to participate. The children in the lives of Compass Group staff have provided recipes to help produce a fabulous cook book

to once again raise funds for their preferred children's' charities. Compass Group employees have donated their Christmas fund, their children have donated their recipes and sponsors have donated time and talent.



The Compass Kids Cook Book is available for sale at \$10 each plus postage, with all proceeds going to the charity partners.

If you would like to purchase a copy, please contact the Public Relations Office on 08 9489 7779 or email pr@ichr.uwa.edu.au



STAFF PROFILE

Swapping the UK for our sunny shores

Lacie Cole, although relatively new to Australian shores, has happily planted herself firmly here on the other side of the world. Raised in Kent in England and graduating with a Business degree from the University of London in 2005, Lacie has worked hard to have the opportunity to travel, live and work abroad, not only in Australia but also in Japan. Lacie has recently joined the Institute as our new Public Relations Officer (Fundraising and Community Relations), to engage the community and fundraise for child health research.

After spending a year participating on a Graduate Program in Nagasaki in western Japan, Lacie decided to put her business head, and heart for international development, to good use. Working on a community development program in Krabi, Thailand, and in an orphanage in Phnom Penn, Cambodia, afforded her experiences that reinforced an innate ambition to work in an international relations and development capacity.

"Working in parts of South East Asia really opened my eyes to a world less fortunate than mine and motivated me to make a difference at a grass roots level," says Lacie.

"After spending time on these programs, I felt ready to harness my education and experiences to improve the quality of life for people who may not have the many choices I am lucky to have had, and continue to have."

After completing her year as a 'JET' (Japan Education and Teaching), Lacie returned to London to work in the not-for-profit sector. Here she worked for several charitable organisations, including Victim Support UK where she was involved with the start-up of the 'Soprotivlenie Movement' in Russia – aiding in the development and sustainability of the organisation by providing information on UK operations and management systems.

Her most recent role was with The Health Protection Agency, part of the Department for Health, where she worked closely with epidemiologists to manage emergency health responses for the UK population domestically and abroad.

Lacie commenced in her current position at the Institute in August 2010 where her role is to develop a broad community awareness of the work conducted at the Institute, manage the supporters database and develop strategies for fundraising through bequests, community initiatives and corporate foundations.

"I work to create awareness of the Institute through community relations, whether it is giving a tour, working with a school or researching other not-forprofits for ideas and events for community engagement," says Lacie.

"I work alongside the Fundraising Manager to assist in seeking support from trusts, corporates and foundations and consistently update and develop our large database of supporters."

Lacie says the Institute is an inspirational



organisation and she's proud to be part of such a dynamic team of ambitious people.

"It fascinates me how much our research has a continuous knock-on effect in our day-to-day lives," says Lacie.

Lacie has already had fundraising success this year at the Institute and is confident she can play an important role in the Institute's fundraising pathways in the future.

An avid international volunteer, prior to coming to Australia, Lacie collaborated with a teacher from America who works on the border of Burma and Thailand.

"We negotiated a scholarship supported by the British Council in Northern Thailand to give a promising Burmese student the opportunity to study at their prestigious English school in Chiang Mai. It was a great result, one I hope they can continue to develop upon."

Away from the Institute, Lacie can be found at the beach, keeping fit by playing netball or riding her bike and on the odd occasion needing a helping hand to be pulled out of a pile of clothes at a vintage sale.

"I'm looking forward to a long summer of BBQs and beach time," says Lacie.

Telethon Institute for

Child Health

Research

Logo refresh

Our special thanks to employer marketing agency ReAgent for creating our refreshed logo artwork. The refreshed logo maintains the adult and child stylised figures but with an updated colour palette and font. We will gradually be moving to this new look as materials are updated.

Based in Sydney, but soon to be opening an office in Perth, ReAgent offers employers smarter ways to communicate with potential talent and existing employees.



Employer Marketing

www.ReAgent.com.au



HEALTHY DEVELOPMENT

You are what you eat: the science behind the saying

Our nutrition seminar held in September was a huge success, with parents taking away up-to-date information about the influence of food on health and practical tips for improving children's eating patterns. Institute researchers Associate Professor Wendy Oddy, Dr Therese O'Sullivan and Associate Professor Liz Milne provided insights into various aspects of nutrition including breastfeeding, dietary patterns and mental health, the importance of breakfast, fats and heart health, carbohydrates and the metabolic syndrome and the importance of micronutrients for the health of our DNA. For those who weren't able to attend, here's a brief summary and some practical tips.

Breast is best

Our studies have shown that breastfeeding for 6 months or longer was associated with reduced mental health problems across the ages of 2-14 years. Breast milk is the best food for babies and contains fatty acids which are needed for optimal brain development.

Omega-3 fatty acids - what are they, what do they do?

The omega-3 fatty acids are essential for brain, central nervous system and immune system development. They are found in breast milk, oils, whole-grains, nuts, seeds, legumes and fish. Electrical signals travelling through the brain get passed from one brain cell, or neuron, to the next. For signals to enter a neuron, they need to pass through the cell membranes, consisting almost entirely of fats. One theory is that very long chain fatty acids make membranes that hold these channels more elastic, making it is easier for them to change shape and for messages to get through. Fish and seafood are among the richest sources of long chain fatty acids.

Our research, along with the results of other studies, suggests that one gram a day of omega-3 fatty acids is associated with an almost 10% decreased risk of dying from cardiovascualr disease down the track in adulthood, along with other potential benefits. So how do you get one gram daily of long chain fatty acids into your (or your kids) diet? Some foods contain more long chain fatty acids than others. You would need to eat around twelve 90g cans of tuna a day to get one gram of long chain fatty acids. Or you could eat three 90g cans of sardines a week, two 150g serves of fresh salmon a week, two 125g tins of mackerel per week or take three and a half 1000mg fish oil capsules a day. There are also many products which have been fortified with omega-3 like frozen fish fillets, yoghurt and oven-fry chips - just look for long chain fatty acids DHA or EPA on the nutrition information panel.

Looking after your DNA is important

DNA, or deoxyribo-nucleic acid, is the hereditary material that contains our genetic code. It determines what we look like, how our cells function and what traits we pass on to our children. Damage to our DNA occurs as a result of normal metabolism within cells, ageing, exposure to x-rays, UV radiation and chemicals, from drinking alcohol and smoking and poor nutrition. Our body's ability to repair DNA can be helped by good nutrition. For example, folate is crucial for DNA methylation, Vitamin C prevents oxidative damage to DNA while Retinol controls cell proliferation. So a healthy diet can help prevent cancer and other diseases.

Breakfast really is the most important meal of the day

Our research has shown that a variety of foods for breakfast can boost mental health in teenagers. Teens often have a poor quality breakfast and our research suggests 15 percent of teens regurlaly skip breakfast altogether. A breakfast containing foods from a variety of food groups ensures a higher nutrient intake which improves brain functioning. One nutrient of importance is carbohydrate. Our bodies convert carbohydrates to glucose, the metabolic fuel required for brain function, and low blood glucose results in the release of hormones such as adrenalin and cortisol which are associated with feelings of

agitation and irritability.





Improving the quality of your breakfast is as simple as adding a food from the core food groups, such as fresh or dried fruit to cereal with milk, topping toast with a sliced banana or making a toasted baked bean and cheese sandwich.

What does GI mean and why is it important?

Glycemic Index or GI is the ranking of carbohydrates, on a scale from 0 to 100, of how quickly they release glucose into the blood stream after eating. Foods with a high GI are those which are rapidly digested and absorbed and result in marked fluctuations in blood sugar levels. Low-GI foods, by virtue of their slow digestion and absorption, produce gradual rises in blood sugar and insulin levels, and have proven benefits for health. Low GI diets have benefits for weight control because they help control appetite and delay hunger. A range of factors influence the GI of a particular food. Did you know that all dairy products are low GI? And processing a food item increases it's GI so corn on the cob has a lower GI than popcorn. Some simple ways to switch to low GI foods include choosing a grainy bread over white or brown bread (for kids who are not used to grain bread, start by using grain bread on only one side of their sandwiches), drinking water instead of cordial or soft drinks and introducing wholemeal pasta to meals gradually by mixing it with the white pasta.

Healthy diet for better mental health

Our research results show that a Western dietary pattern (characterised by takeaway food, red meat and confectionery) was associated with poorer mental health compared to a Healthy dietary pattern (more leafy green vegetables and fresh fruit). So prepare fresh healthy meals and limit intake of Western foods to improve the mental health of your teens.

> Some tasty treats: A delicious spread for sandwiches or toast can be made by mixing a tin of mackerel fillets with cream cheese, lemon juice and dill for an omega-3 boost. A great healthy breakfast with a variety of food groups includes yoghurt topped with fresh strawberries, muesli and sunflower seeds.

OUR SUPPORTERS

Denmark is a beautiful piece of Western Australia's south coast and home to Rickety Gate Wines. The winery is run by the Hubbard family - Russell, Linda and Courtney - and they recently sent us a donation to put towards our child health research.

The reason they chose to support the Institute? Courtney is one of our important Raine Study participants we've been tracking her health and development since before she was born.



Linda, Russell and Courtney Hubbard.

UNDERSTANDING DISABILITY

New autism study

Fluoxetine for Autistic Behaviours (The FAB Trial) is a multi-site randomised medication trial seeking to determine whether a common anti-depressant medication (Fluoxetine) is effective in reducing symptoms in children and adolescents with an Autism Spectrum Disorder (ASD).

Children and adolescents with an ASD often present with a range of compulsive behaviours such as the arrangement of toys in a specific way. They are also often resistant to change and have restricted routines around meal and bedtimes and can easily become overwhelmed by different environments, people, objects and situations.

It is thought that repetitive behaviours often seen in ASD, such as finger flicking, body rocking and self-injury (such as biting fingers), may be an anxiety response to changes in their daily environment. These repetitive behaviours can be distressing and interfere with optimal functioning, learning and socialising. Leader of the FAB Trial and the Institute's Developmental Disorders research team, Dr Andrew Whitehouse, says this high level of functional impairment has an enormous mental, physical and financial burden on the individual, their families and carers.

"The use of low dose Fluoxetine among Australian children with ASD has not yet been investigated," said Dr Whitehouse.

"Anecdotally, the use of Fluoxetine for the treatment of repetitive and restricted behaviours is common among the paediatric population.

"But so far, we have no quality evidence to show how effective this medication is at reducing repetitive behaviours and enhancing individuals quality of daily life," Dr Whitehouse explains.

Participants aged eight to 17 years with a known ASD diagnosis are currently being recruited to participate in a 22 week trial. This study also invites primary parent/caregivers to complete several questionnaires about their child's repetitive, restricted and compulsive behaviours with a view to measure changes in the child's behaviour as a result of the medication.

In addition, this trial is also being conducted in Victoria (at the Royal Children's Hospital Melbourne) and New South Wales (Children's Hospital at Westmead) as part of the larger picture of gathering evidence for the safety and treatment of low dose Fluoxetine among children with autism in Australia, and the world.

"We are hopeful that this trial will set a precedent for similar studies that can be replicated in other countries, thereby providing quality evidence for its clinical use and better informed choice for families regarding their child's treatment for repetitive behaviours associated with ASD", said Dr Whitehouse.

For more information and study package, contact the FAB Trial Coordinator Joanna Granich on 9489 7749 or email jgranich@ ichr.uwa.edu.au



Find us on Facebook

Join our 500-strong fan base and help spread the virtual word about the Institute's great work. Improving child health is everyone's business - one of our fans is even the manager of pop sensation the Black Eyed Peas! <u>www.facebook.com</u>



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Our future

The Telethon Institute for Child Health Research is dedicated to improving the health and wellbeing of every child.

Our researchers investigate the causes and find innovative solutions to the most common or debilitating conditions - including childhood cancers, asthma and allergies, birth defects, mental health problems, infections and disability.

We have a strong focus on helping those with the greatest burden - Indigenous families and children in disadvantaged communities.

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