Welcome to the inaugural School of Women’s & Children’s Health Research Newsletter. This will be a triennial publication with issues circulated in April, August, and December.

2017 has already proven to be an exciting year, with many positive changes happening at UNSW. The Sydney Partnership for Health, Education, Research and Enterprise (SPHERE), a $20 million initiative between 14 leaders in health, education, and medical research was officially launched by the NSW Minister for Health and Medical Research, Brad Hazzard in March. The School of Women’s and Children’s Health is proud to be an integral member of this partnership and is involved in the majority of the 12 clinical academic streams. For more information on SPHERE please see page 2.

The Bright Alliance Building was officially opened earlier this month by Premier Gladys Berejiklian and Health Minister Brad Hazzard. The $114 million building on the Randwick Hospitals Campus houses the Discipline of Paediatrics, together with Prince of Wales Hospital’s Nelune Comprehensive Cancer Centre, UNSW Scientia Clinical Research and an expansion of the Sydney Children’s Hospitals Network, including an outpatient service for adolescents and young adults. We have already seen the positive impact of bringing together paediatric researchers from across the campus into the Centre for Child Health Research and Innovation on level 8.

The Sydney Children’s Hospitals Network Human Research Ethics Committee and Scientific Advisory Committee are calling for expressions of interest for membership. I have been involved with the Scientific Advisory Committee (SAC) for a number of years and have found it to be a very rewarding, collegiate experience and would urge anyone in paediatric research to consider joining the HREC committee or SAC. More information on the EOI process can be obtained by emailing SCHN Ethics Office.

The School is delighted to welcome Dr Stuart Hamilton, NHMRC Early Career Fellow, Senior Research Fellow A/Prof Sue Woolfenden; and formally announce that Dr Sean Kennedy has been appointed as Director of Education for the School.

We wish Meg Moody well on her maternity leave and look forward to welcoming back Kylie-Ann Mallitt from her maternity leave in June. Kylie will provide statistical support one day a week following her return.

You may have noticed that we have embarked on some new initiatives to support research in the School, this includes the establishment of a mentoring program coordinated by Professors Susan Ramus and Alec Welsh, a Gold Star near-miss award (congratulations Kirsty Walters) and an ECR/MCR Best Paper of the Month Award.

As I am sure you are aware, Operational Excellence at UNSW is well-underway which has affected some of our staff. I urge you to be patient with the various changes to service delivery and also mindful of the possible impact on colleagues around you. Bill, Tracey and I are available to answer any of your queries. I wish to thank Marina Margarian and Carolyn Green for all their hard work for the School over the preceding few years and I am very hopeful that our relationship with Carolyn in purchasing will continue going forward.

Enjoy this issue of the and please remember to send any news or suggestions for content to Samantha McFedries, Research Manager for inclusion in future editions.

Best wishes,

Professor Adam Jaffe
Head of School & John Beveridge Professor of Paediatrics
School of Women’s & Children’s Health

Associate Director of Research
Sydney Children’s Hospital Network
(Randwick)
A $20 million partnership between 14 leaders in health, education and medical research in NSW was launched in Sydney today by the NSW Minister for Health and Medical Research, Brad Hazzard.

The Sydney Partnership for Health, Education, Research and Enterprise (SPHERE) is a collaboration between leading experts in health, research and education sectors and aims to develop new and innovative ways to deliver better healthcare for communities in NSW.

Modelled on successful academic health science alliances in the UK and the US, SPHERE has already highlighted a range of state and national health challenges that it intends to look at, including cancer treatment, mental health, diabetes and childhood illnesses.

Professor Ian Jacobs, President and Vice-Chancellor of the University of New South Wales and inaugural Chair of SPHERE said one of the key goals of the partnership was to accelerate the path of promising and potentially lifesaving research into clinical practice.

“It currently takes 17 years on average to commute positive research and laboratory findings into actual practices that will benefit patients. That is too long.

“SPHERE’s aim is to speed up the adoption of potentially lifesaving research in medicine and science by bringing some of Australia’s leading minds in health, education and research together to share their ideas, knowledge, expensive equipment and staff to deliver solutions to major health challenges.

“While similar partnerships in Australia have tended to focus on research and science, SPHERE is focused on translating research and science into real outcomes for patients and their communities,” Professor Jacobs said.

Members of the SPHERE partnership include some of NSW’s biggest universities, medical research institutes and NSW Government agencies, with all 14 partners already committing a minimum 0.05 percent of their annual institutional turnover, more than $20 million, to SPHERE over the next five years.

Professor Jacobs said the SPHERE council had first met some 18 months ago, bringing together VCs and Deans from universities with Board Chairs and Chief Executives of key health organisations to set out the partnerships structure and vision.

“Several members of our team including myself have founded, led or worked in leading health science partnerships around the world and have seen the difference these organisations can make,” he said.

“Our ambition is for SPHERE to emulate the very best international exemplars of this sort of partnership in NSW.”

Conjoint Associate Professor Susan Woolfenden, Community Paediatrician and Integrated Care Clinical Lead, Sydney Children’s Hospitals Network, said: “We’re bringing clinicians, researchers, educators and most importantly our families together to make sure that no matter where a child is, they’re getting the right care, at the right time, in the right place.”
In 2016, SPHERE was gifted an Indigenous name ‘Maridulu Budyari Gumal’, which means “working together to promote better health and wellbeing” in the language of the Dharug people (the original inhabitants of lands comprising much of Sydney) in recognition of SPHERE’s importance to Aboriginal health in NSW.

Visit the SPHERE website for more information on the partnership.

GOLD STAR AWARD - DR KIRSTY WALTERS

Due to the announcement from UNSW that Gold Star awards would not be offered for near-miss NHMRC or ARC grants in 2016, a number of Schools decided to give their own awards – including the School of Women’s & Children’s Health.

The School awarded the grant to Dr Kirsty Walters for her project titled ‘Unravelling the role of androgens and diet in polycystic ovary syndrome.’

The award is for $40,000 and to support on-going research and future NHMRC applications.

Dr Walters’ NHMRC Project Grant application was ranked the highest out of all School applications submitted in 2016.

Dr Walters specialises in the field of female reproduction and ovarian function; and heads up the Ovarian Biology Laboratory based in the Wallace Wurth Building. Dr Walters’ research involves using customized genetic mouse models in combination with clinical samples and trials to dissect out the fundamental mechanisms regulating female reproduction and polycystic ovary syndrome (PCOS). In particular, her research has focused on understanding the role androgens play in regulating female fertility and PCOS. Findings from this research will identify therapeutic targets for improved treatment of female infertility and the wide range of health issues associated with PCOS, including obesity, insulin resistance, type 2 diabetes and cardiovascular risk.

Dr Walters currently has 25 peer-reviewed publications, including two sole invited reviews (760 cites, Google Scholar). She has 13 first and four senior author publications and consistently publishes in top ranking journals including PNAS, Endocrinology, Human Reproduction Update and Biology of Reproduction.

Over her career Dr Walters has acquired over $1.8M in research funding. She has a strong track record in successful category 1 competitive grant funding with the award of an ARC Discovery Early Career Researcher Award (DECRA) starting 2012 (DE120100796: $375,000 over 3 years), two NHMRC Project Grants as CIA starting 2010 (#632678: $520,500 over 3 years) and 2012 (APP1022648: $493,515 over 3 years), and another NHMRC Project Grant as CIC, starting 2011 (APP1008160: $408,374 over 3 years).

Recent Publications:


View Dr Kirsty Walter’s Research Profile.

REVOLUTIONARY BREAKTHROUGH TO EASE DISCOMFORT AND COST OF FERTILITY TREATMENT

24 January 2017 | NHMRC

For many Australians, in-vitro fertilisation (IVF) is sometimes the only option for those seeking to build a family. This includes hormone therapies and invasive monitoring, which can often lead to medical complications and high prices. Scientists from Australia and Belgium have advanced an existing treatment that is less invasive and more cost effective.

Led by UNSW’s School of Women’s and Children’s Health (link is external) Associate Professor Robert Gilchrist, an international team of researchers have improved an existing treatment known as in-vitro maturation (IVM).

IVM is different from standard IVF treatment as it retrieves the eggs at an immature stage, bringing them to maturity in the laboratory. This means fertility drugs, such as follicle-stimulating hormones (FSH), are not required to stimulate egg cell growth before collection. Patients also need less monitoring, meaning fewer blood tests and ultrasounds. Read more...
SPINAL MUSCULAR ATROPHY: NEW HOPE FOR AUSTRALIAN PARENTS OF SMA INFANTS
29 January 2017 | Liz Trevaskis & Emilia Terzon | ABC Radio Darwin

Only one in 10,000 babies are thought to be born with SMA each year worldwide. Yet it is the leading genetic cause of infant death, according to Michelle Farrar, a leading SMA expert and neurologist at Sydney Children’s Hospital.

Few parents know they are silent carriers of the recessive gene until symptoms like floppiness start to present in their children, and there is currently no routine testing of newborns for SMA in Australia.

Those with less severe and later-onset forms can have promising outcomes and even normal life expectancies, however most SMA type 1 infants require feeding tubes and breathing machines soon after diagnosis; the treatment is essentially palliative.

Developed internationally, a new treatment called nusinersen is producing promising results, with 40 per cent of babies in a recent blind trial of various SMA types reaching milestones such as sitting, crawling and walking.

“Generally most parents are looking at quality of life rather than prolonging life in such a severe situation. We hear a lot about bucket lists,” Dr Farrar said. Read more...

POLYCYSTIC OVARIES MIGHT START IN THE BRAIN, NOT THE OVARIES
21 March 2017 | Fiona MacDonald | Science Alert

A new study has found evidence that the common and debilitating reproductive condition, polycystic ovary syndrome, could start in the brain, not the ovaries, as researchers have long assumed.

“For the first time we have a new direction of where we should be looking to try and develop treatments that will treat the cause of PCOS, the androgen excess in the ovary but also in the brain,” said lead researcher Kirsty Walters in an emailed press release.

Before this, researchers knew that an increase in androgens, known as hyperandrogenism, was linked to the onset of PCOS. But exactly how and where these androgens act in the body was poorly understood. Read more...

AUSTRALIA: NEW FRONTIERS FOR FERTILITY AND YOUNG PEOPLE WITH CANCER
21 March 2017 | Emily Drake | Huffington Post

One of the areas of great importance for advocacy and research in the young adult cancer movement is Oncofertility. What we know is that cancer and its treatment (surgery, chemotherapy and radiation) can affect the ability for a person to have children. Oncofertility (oncology + fertility) is a term that was coined by Dr. Teresa K. Woodruff of Northwestern University to define this area of academic research and practice.

Sadly, there are a number of barriers to patients not receiving Oncofertility care which includes the high costs of preserving patient’s fertility, which are not uniformly covered by health and insurance cover, the lack of referrals between cancer and fertility specialists
and the difficulties of having these discussions at diagnosis when doctors and patients are concentrating on the cancer diagnosis.

A year and a half ago, I wrote a blog titled, “5 Things You Should Know About Oncofertility”. Since then I have had the opportunity to travel to Australia and interview one of the leading experts in the field, Dr. Antoinette Anazodo, to ask her about the incredible leading work her and her team are doing Down Under. Dr. Anazodo founded the FUTuRE Fertility Research Team (Fertility Understanding Through Registry and Evaluation) who has established the first web-based, multi-site ‘Australasian Oncofertility Registry’ (AOFR). It collects international data from cancer and fertility centres. Their study was co-developed by The Kids Cancer Centre at Sydney Children’s Hospital, The Nelune Comprehensive Cancer Centre at The Prince of Wales Hospital, The Royal Hospital for Women and The University of New South Wales with a national group of chief investigators. Read more...

INTERNATIONAL STUDY IDENTIFIES NEW GENETIC CAUSES OF OVARIAN CANCER
28 March 2017 | UNSW Medicine

A major international collaboration has identified new genetic drivers of ovarian cancer.

Cancer Australia estimates that in 2017 nearly 1,600 Australian women will be newly diagnosed with ovarian cancer and nearly 1,050 will die from the disease. Only 44 per cent of women who are diagnosed with ovarian cancer will survive for five years.

The findings have been published today in the journal Nature Genetics.

The study involved 418 researchers from both the Ovarian Cancer Association Consortium, led by Dr Andrew Berchuck from the United States, and the Consortium of Investigators of Modifiers of BRCA1/2, led by Professor Georgia Chenevix-Trench from QIMR Berghofer Medical Research Institute.

Professor Chenevix-Trench said it was known that a woman’s genetic make-up accounts for about one third of her overall risk of developing ovarian cancer.

“This is the inherited component of the disease risk,” Professor Chenevix-Trench said.

“Inherited faults in genes such as BRCA1 and BRCA2 account for about 40 per cent of that genetic risk. Other variants that are more common in the population (carried by more than one in 100 people) are believed to account for most of the rest of the inherited component of risk.

“We’re less certain of environmental factors that increase the risk, but we do know that several factors reduce the risk of ovarian cancer, including taking the oral contraceptive pill, having your tubes tied and having children.

“In this study we trawled through the DNA of nearly 100,000 people, including patients with the most common types of ovarian cancer and healthy controls.

“We have identified 12 new genetic variants that increase a woman’s risk of developing the cancer. We have also confirmed that 18 variants that had been previously identified do increase the risk.

“As a result of this study, we now know about a total of 30 genetic variants in addition to BRCA1 and BRCA2 that increase a woman’s risk of developing ovarian cancer. Together these 30 variants account for another 6.5 per cent of the genetic component of ovarian cancer risk.”

QIMR Berghofer’s Professor Penny Webb said ovarian cancer was a highly complex disease.

“Even the 30 genetic variants that we now know increase risk of developing the disease account for just a small fraction of the inherited component,” she said.

“There are likely to be many more genetic variants involved, each with extremely small effects. Most of these are likely to be common in the population, but some will be rare.”

Professor Susan Ramus from UNSW said while the study had significantly advanced the knowledge of the genetic drivers of ovarian cancer, there was a lot more work to do.

“We really do not understand how these genetic variants affect risk, but with further study they may help us to treat and possibly prevent ovarian cancer,” Professor Ramus said.

“This study also highlights that Australia is at the global forefront of genetics research. Thirty-two Australian researchers from eight different institutions contributed to this major, international study.

“It also involved DNA and lifestyle information from nearly 6,000 Australian women.”

IVF: A LOOK AT THE IN VITRO FERTILISATION PROCESS
11 April 2017 | Emma Brancatisano | Huffington Post

IVF is a growing industry. In spite of this, Australians fertility experts warn that there can often lie little chance of success.
“IVF is certainly becoming more streamlined these days. But people need to understand what it actually does and have realistic expectations from the outset,” Dr Juliette Koch, obstetrician-gynaecologist and fertility specialist at IVF Australia, told HuffPost Australia.

“In a cycle of IVF, if you have ten free eggs, you may end up with an average of one or two good embryos. Depending on your age, if you’re up to 40 years old, the chance of having a baby is at about 30 percent.” Read more...

“PLAYMED – BRIDGING THE GAP BETWEEN STUDENT AND DOCTOR”
Dr Michael Coffey

PlayMed is an online highly immersive role-playing game designed to educate medical students through experience-based learning in a virtual hospital environment.

Our own Dr Keith Ooi and Dr Michael Coffey in conjunction with Lionsheart Studios have developed PlayMed over the last 18 months.

Supported by an initial UNSW Learning and Teaching Grant and generous funding from the School of Women’s and Children’s Health, PlayMed has taken flight.

A recent case-control study on an Asthma prototype for Phase 3 UNSW Medical students showed a 25% increase in performance on an Acute Asthma Knowledge Quiz (P=0.01).

Feedback on the game showed that 84% of students strongly agree or agree that the game will prepare them for real-life clinical scenarios.

PlayMed also received the Prince of Wales TOW Award for ‘Best Poster’ in 2016.

With further financial support from UNSW and the School of Women’s and Children’s Health, Keith and Michael are now moving forward with the development of a complete Paediatric Edition of PlayMed, so watch this space towards the end of 2017!

ACADEMIC WOMEN IN LEADERSHIP PROGRAM

Congratulations to Dr Michelle Farrar who was accepted into UNSW’s Academic Women in Leadership (AWIL) Program for 2017. This is a wonderful achievement.

The AWIL Program is a gender equity initiative that has been conducted annually at UNSW since 2006. The overarching Organisational purpose is to:

Build a visible cohort of high potential, talented academic women to lead with confidence and competence

Contribute to an increase in representation and distribution of academic women in senior appointments and on key policy and decision-making bodies

Support the 2025 UNSW strategies of building a culture that values and rewards staff excellence, and for its provision of pathways for development and progression.

Entry onto the AWIL program is through a competitive application and selection process that is completed in February each year. Invitations are sent via email to eligible women to apply for the Program at the end of the preceding year.

More information on the Academic Women in Leadership program can be found online.
NEW STAFF

A number of new staff have recently joined the School of Women’s & Children’s Health and we would like to take this opportunity to welcome them and to encourage them to get involved with all School activities.

Please also take advantage of the support provided by the School, namely Prof Adam Jaffe, Head of School; Prof William Ledger, Head, Discipline of Obstetrics & Gynaecology; Dr Sean Kennedy, Director of Education; Tracey Good, School Manager; Nancy Briggs, Biostatistician; Samantha McFedries, Research Manager; Sara Savioe and Pragati Thakur, Personal Assistants to Prof Adam Jaffe; and Galina Lazareva.

For those needing a NSW Health Stafflink ID and Workforce Clearance, please contact Samantha McFedries and she will help you navigate the process. The Stafflink ID will enable you to log-in to hospital computers, and also a hospital ID card. Sydney Children’s Hospital ID cards will give you access to Level 8 of the Bright Alliance.

GRANTS
SUCCESSFUL GRANTS

So far, 2017 has been a productive year in terms of grant successes. Congratulations to all School of Women’s & Children’s Health recipients. It has also been a bumper year for applications, particularly NHMRC.

18 applications were submitted from the School (including the Children’s Cancer Research Centre) across the Project Grant, Early Career Fellowship, and Career Development Fellowship schemes.

If your grant has not been listed, please contact Samantha McFedries.

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<tr>
<th>Name</th>
<th>Position</th>
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<tr>
<td>Luke Fry</td>
<td>Research Officer, Behavioural Sciences Unit</td>
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<td>Paayal Gohil</td>
<td>Research Officer, Behavioural Sciences Unit</td>
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<td>Jennifer White</td>
<td>Research Officer, Behavioural Sciences Unit</td>
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<td>Jessica Horton</td>
<td>Research Assistant, Virology Research Laboratory</td>
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<td>Karen McCleary</td>
<td>Research Assistant, Kids Cancer Centre</td>
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<td>Eleanor Somerville</td>
<td>Research Nurse, Reproductive Medicine Research Group</td>
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<td>Nihan Turgutoglu</td>
<td>Technical Assistant, Australasian Centre for Personalised Cystic Fibrosis Medicine</td>
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<td>A/Prof Susan Woolfenden</td>
<td>Senior Research Fellow, Community Child Health</td>
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<td>Dr Stuart Hamilton</td>
<td>NHMRC Early Career Research Fellow, Virology Research Laboratory</td>
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<tr>
<td>Dr Kim Brandes</td>
<td>Postdoctoral Research Fellow, Hearts &amp; Minds Research Group</td>
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<td>Dr Timothy Budden</td>
<td>Postdoctoral Research Fellow, Molecular Oncology Research Group</td>
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<td>Dr Sarah Ellis</td>
<td>Postdoctoral Research Fellow, Behavioural Sciences Unit</td>
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<td>Dr Rebecca Mercieca-Bebber</td>
<td>Postdoctoral Research Fellow, Behavioural Sciences Unit</td>
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<td>Dr Janine Vetsch</td>
<td>Postdoctoral Research Fellow, Behavioural Sciences Unit</td>
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<td>Dr Shanna Logan</td>
<td>Clinical Psychologist, FUTuRE Fertility Research Group</td>
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<td>Dr Alexandra Johnson</td>
<td>Research Associate, Kids Cancer Centre</td>
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<td>Dr Hooi Ling Teoh</td>
<td>Research Associate, Neuromuscular Research Group</td>
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<td>Adelyn Bolithon</td>
<td>Research Assistant, Molecular Oncology Research Group</td>
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<td>Mary-Ellen Brierey</td>
<td>Research Officer, Behavioural Sciences Unit</td>
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<td>Daisy Collins</td>
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<td>Holly Evans</td>
<td>Research Officer, Behavioural Sciences Unit</td>
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<tr>
<td>Prof Michelle Haber</td>
<td>Tour de Cure Ltd Collaborative Cancer Research Grant</td>
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<td>A/Prof Georgina Chambers</td>
<td>HCF Foundation Research Grant</td>
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<td>A/Prof Susan Woolfenden</td>
<td>Research Foundation of Cerebral Palsy Alliance Career Development Grant</td>
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<tr>
<td>Dr Toby Trahair</td>
<td>Tour de Cure Ltd Established Research Grant</td>
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<tr>
<td>Dr Michael Bertolodo</td>
<td>Monash University - The CRE in Polycystic Ovary Syndrome Project Support Grant</td>
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<td>Dr Kirsty Walters</td>
<td>The Endocrine Society of Australia (ESA) Ken Wynne Memorial Postdoctoral Research Award</td>
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<tr>
<td>Dr Pei Yan Liu</td>
<td>Tour de Cure Ltd Scott Canner Young Research Grant</td>
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<tr>
<td>Dr Maria Tsoli</td>
<td>Tour de Cure Ltd / Pioneering Cancer Research Grant</td>
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SCHF RESEARCH STARTER GRANTS 2017

This week Nicola Stokes, CEO for the Sydney Children's Hospital Foundation announced the recipients of the SCHF Research Starter Grants for 2017.

The SCHF received an impressive 29 applications from various departments and in a diverse range of subjects. The Assessors and Grant Review Panel were faced with a difficult task due to the high standard of applications submitted.

The recipients were as follows, with two of the five grants being earmarked for the priority areas of early life determinants of future health, and allied health and nursing:

1. A/Prof Susan Woolfenden – Department of Community Child Health
   
   Early Childhood Development – Getting it Right, Getting in Early.
   
   Priority Area: Early life determinants of future health

2. Dr Michelle Farrar – Neurology Department
   
   Understanding how patients and carers make decisions in Spinal Muscular Atrophy Treatment: A pilot study.

3. Dr Steven Leach – Gastroenterology Department / Westfield Research Laboratories
   
   Breastfeeding is Best: Characterising Human Milk Oligosaccharide (HMO) metabolism in the developing infant microbiome and how HMOs contribute to health and disease.

4. Dr Brendan McMullan – Department of Infectious Diseases & Immunology
   
   Early life parechovirus infection neurodevelopment at 3+ years (ELPIN-3 study)_Randwick arm

5. Ms Felicity Wright – Pharmacy Department
   
   Thiotepa Kinetics and Genomics Study: Thiotepa pharmacokinetics and pharmacogenomics in paediatric haematopoietic stem cell transplantation.
   
   Priority Area: Allied Health & Nursing

Thanks to the assessors and grant review panel members, who kindly donated their time to read and score applications. Without your continued support, schemes such as the SCHF Research Starter Grants would be unable to operate.

All Sydney Children's Hospital researchers whether allied health, medical or nursing professionals; or hospital scientists; are encouraged to apply for future funding opportunities from Sydney Children's Hospital Foundation. Watch this space for a PhD scholarship that will be advertised soon.

THE CONVERSATION

Explainer: what's cytomegalovirus and why do pregnant women need to know about it?

Cytomegalovirus (CMV) is a virus transmitted from person to person via body fluids like urine or saliva. For people with a healthy immune system, CMV is likely to cause no more than a temporary fever or headache. But when a pregnant woman is infected, the results can be far more serious. Read more...

- Dr Wendy van Zuijlen, Postdoctoral Scientist, Virology Research Laboratory

To be ill is human: why normalising illness would make it easier to cope with

Why are we so shocked when we, or someone we know, becomes ill? Why are many people scared of illness and unable to support their loved ones when illness strikes? And why do so many people still think “it won’t happen to me”?

These questions strike at the heart of our relationship between sickness and health and our reluctance to confront illness as part of our everyday lives. Read more...

- A/Prof Claire Wakefield, NHMRC Career Development Fellow

CHILDREN’S CANCER INSTITUTE NEWS

The microbe that started a revolution

A tiny, heat-loving microbe is at the centre of the genomics revolution. It plays a vital role in the Polymerase Chain Reaction (PCR), a technique that has transformed life sciences research. Read more...

Zero Childhood Cancer Update

Right now, we’re getting ready to receive, process and analyse samples of patients’ tumours from partner hospitals around Australia.

Zero Childhood Cancer is the most ambitious childhood cancer research initiative ever undertaken for children with cancer in Australia. This national child cancer personalised medicine program is led by Children’s Cancer Institute in partnership with Sydney Children’s Hospitals Network, and will involve all paediatric oncology units across Australia. Read more...

How parents’ insights help my research

Dr Orazio Vittorio explains how working with parents gives his childhood cancer research a reality check.

Listening to the community— called ‘consumer
engagement”—is vital to ensuring our research is relevant and meets community needs. One researcher seeing the benefit of this is Dr Orazio Vittorio, Project Leader in the Tumour Targeting and Biology Program, whose research focuses on finding innovative strategies to treat neuroblastoma and glioblastoma. We asked him about his experience working with a family affected by childhood cancer, the Mazzuccos. Read more...

Cancer research meeting of minds

More than 21,900 of the world’s top cancer researchers from over 60 countries gathered in Washington DC from 1-5 April to share progress in the global search for a cure. Australian researchers, including researchers from our Institute, were well-represented. Read more...

New leukaemia sub-type found by DNA test

A previously unknown subgroup of high-risk leukaemia in children has been revealed with a new, more accurate DNA test. Read more...

Facts & figures draw a picture of childhood cancer

Health data draws a picture of this disease that kills more Australian children than any other. What does it show? Read more...

Joining the dots to find neuroblastoma drug target

By looking at DNA-packing proteins, we identified a new drug target for neuroblastoma called DOT1L. See how we joined the dots. Read more...

Meet a Researcher: Q&A with Dr Alvin Kamili

Dr Alvin Kamili is Preclinical Drug Testing Core Team Leader in the Zero Childhood Cancer personalised medicine program. He tells us about his role and the challenges he’s solving in the lead-up to the program’s national clinical trial. Read more...

RESEARCH GROUP UPDATES

BEHAVIOURAL SCIENCES UNIT

Mary Burns

Welcome back Ursula

The Behavioural Sciences Unit (BSU) would like to welcome back our Co-Deputy Head, post-doctoral research fellow Ursula Sansom-Daly from maternity leave. Dr Sansom-Daly will be leading our mental health research stream (Recapture Life, Cascade and Difficult Discussions) and returning to her clinical position at the Youth Cancer Service.

Achievements

A big congratulations to Dr Jennifer Cohen who received a Junior Conjoint Researcher Award from the School of Women’s and Children’s Health. Dr Cohen is the leader of the nutrition research stream at the BSU and a registered dietitian at the Kids Cancer Centre.

New Studies

Ready Steady School

The Ready Steady School study aims to develop a national comprehensive school re-entry program for child and adolescent cancer survivors returning to school after treatment. We are recruiting healthcare and education professionals and consumers (parents and childhood/adolescent cancer survivors) to interviews, to provide preferences and feedback during program development.

Reconnect

The Reconnect study aims to develop a social skills intervention specifically for survivors of childhood cancer. We are recruiting survivors, parents and teachers to establish the prevalence of social skill difficulties and to provide preferences for the social skills interventions for survivors.

For more information on Ready Steady School and Reconnect, email Dr Joanna Fardell, Principal Investigator.

Recent Publications


THE NATIONAL PERINATAL EPIDEMIOLOGY AND STATISTICS UNIT: RAISING THE B@RR STUDY: IMPROVING BIRTHING @ RNS/RYDE HEALTH SERVICE

A/Prof Georgina Chambers

The National Perinatal Epidemiology and Statistics Unit (NPESU) is a joint unit of the School of Women’s and Children’s Health and the UNSW Centre of Big Data Research in Health. It is a leading source of statistical and epidemiological research to inform policy, community discussion and decision-making.
on the health and wellbeing of mothers and babies in Australia. The unit manages the Australian and New Zealand Neonatal Network (ANZNN) clinical quality register and the Australian and New Zealand Assisted Reproductive Technology Database (ANZARD), as well as undertaking both investigator-led and commissioned research.

One of the studies it is particularly proud of it, is the development of a world-first classification system for maternity models of care, led by Health Information Manager, Natasha Donnolley. The MaCCS (Maternity Care Classification System) development was funded by the Commonwealth Department of Health and will enable maternity services around Australia to classify the models of care they offer to pregnant women in order to evaluate maternal and perinatal outcomes. Hospitals around the country have begun to classify their models of care using an online data collection tool, and this data will populate a new national data collection hosted by the Australian Institute of Health and Welfare. The MaCCS classifies models of care based on 15 characteristics, such as the groups of women the model is targeted at, the profession of the designated lead carer, the extent of continuity of carer, and where care is provided etc. Each model is then grouped into one of 11 Major Model Categories that describe the overall model design and is allocated a unique Model ID, which is recorded in a women’s pregnancy record.

This will enable the characteristics of maternity care that improve health and psychosocial outcomes of mothers and babies to be identified - something that has not been possible before.

Following on from this successful project, the NPESU were recently awarded a 3-year research grant from the HCF Research Foundation to undertake the B@RR Study. This pilot project will use the MaCCS and the new International Consortium for Health Outcomes Measurement (ICHOM) Pregnancy and Childbirth Standards to evaluate maternal and perinatal outcomes under different models of maternity care at Royal North Shore Hospital and Ryde health service. Recruitment will commence later this year, and will collect patient reported outcome measures (PROMs) and clinical outcome data on pregnancies and births over a 12-month period.

The Principal Investigator is the Director of the NPESU, Associate Professor Georgina Chambers and the Project Manager and Co-Investigator is Natasha Donnolley.

HEARTS & MINDS

The Hearts & Minds research group led by A/Prof Nadine Kasparian has welcomed a new Postdoctoral Research Fellow - Dr Kim Brandes from The Netherlands.

Ashley Towney, honours student in the Hearts & Minds research group has recently featured in the media as the first Indigenous student accepted into the UNSW Medicine honours programme. In the story, Ashley highlights the power of a mentor in helping you on your journey to achieve your goals and her dream of returning to the country to practice medicine. See page 12 for the full story.

Congratulations to Stephanie Tesson who has received an NHMRC PhD Scholarship (administered by USyd) and also to A/Prof Nadine Kasparian as she commences her Heart Foundation Future Leader Fellowship.

INTRODUCING SOUTH WEST SYDNEY RESEARCH

University staff and affiliates are invited to register their interest in being part of the research community supported by South West Sydney Research.

South West Sydney Research is part of a network of eight health research hubs across the state. The Hubs, with the Office of Health and Medical Research (OHMR), aim to make NSW more competitive nationally and internationally by bringing expertise within the state together to support research infrastructure and governance.

South West Sydney Research was built on the principles of inclusiveness and collaboration and brings together health, research and health education entities in South Western Sydney as a coordinated Hub. UNSW is a founding member and works with the Hub partners to improve health outcomes for people in South Western Sydney.

Hub activities include provision of research grants, supporting networking and collaboration, and promoting your research. Learn more.

South West Sydney are working on several projects to increase research capacity, expand resource access and bring health benefits to the local community. Much of our activity centres on the benefits of collaboration and resource sharing.

Your input is valuable to help them understand research barriers and opportunities and steer our energies in the
right direction. Please take some time to browse the information on the [website](#) and [email](#) ideas or feedback. You are also able to register as a member by completing your profile this information links to the South West Sydney Research ‘find a researcher’ functionality and makes it easier for potential collaborators to find you.

### RESEARCH RESOURCES

#### NEW UNSW GRANTS MANAGEMENT CONTACT

The 12th April was Carlie Scully’s last day at the Grants Management Office, as she departs on maternity leave. **Craig Shuard** has recently joined the GMO Medicine Team and will now be the main point of contact for the School of Women’s & Children’s Health and CCR at the GMO.

Craig has worked in Research Support/Management for 9 years, joining us from the ACU Research Office and prior to that, the Faculty of Engineering and IT at UTS.

A reminder that all grant applications must be submitted to Craig for UNSW compliance review at least two weeks prior to the external funding organisations deadline. However, for larger schemes for example NHMRC and ARC, they are required a month prior to the external deadline.

Compliance review by the GMO is very important. Not only will they ensure you are meeting the funding bodies requirements, but that your budget is correct and sufficient to mean your project is sustainable and won’t be underfunded.

### LIBRARY - UPDATE

#### Outreach Librarian - Peter Smith

Introducing Peter Smith our Outreach Librarian, replacing Kate Dunn. Peter can be contacted by [email](#) or phone - 9385 8241.

Outreach Librarians provide UNSW professional and academic staff with a personalised point of contact for UNSW Library. Outreach Librarians promote UNSW Library’s collections and services and gather information about the needs of clients to shape service development and delivery.

Outreach librarians are extremely helpful in showing you how to get the most out of ROS including how to capture all your publications, and how to determine which are able to be placed in open-access to satisfy NHMRC and ARC mandates. They are also great at finding papers and publications that you are struggling to locate via regular channels. They also offer great advice on strategic publishing and together with their library colleagues run workshops throughout the year.

### ORCID

Ensure your research is recognised with an ORCID An [ORCID](#) is a unique digital identifier that distinguishes you from every other researcher to ensure that your work is recognised.

**Uses and Benefits:**

- ORCID supports automated linkages between you and your professional activities. Include your ORCID when you submit publications, apply for grants, and in any research workflow to ensure you get credit for your work.
- ORCID is a tool that links the many available author IDs (such as Scopus ID and ResearcherID) under a single identifier to connect researchers to all their research activities and outputs. Sign up for a new ORCID via ROS or add an existing one to your profile to locate your outputs across the web.

#### How do I get one?

Log in to [ROS](#) and follow the instructions in the ROS Help Guide on how to register.

#### Need help?

Contact your [Outreach Librarian](#) for assistance.

#### Australian Paediatric Research Network Measures Library

The Australian Paediatric Research Network (APRN) recently launched their Measures Library.

The APRN Measure Library is a free resource of around 100 commonly used measures (e.g. for surveys) in child and parent research that aims to help paediatricians, other clinicians, researchers and students find the right measure/s for their research or clinical practice. Each measure includes a description, web links, references, costs and licensing, syntax (where available) etc.

The library is available [online](#).

Any questions or feedback? Please [email](#) the APRN.

#### BMJ Paediatrics Open - FREE FEES

BMJ Paediatrics Open is a new open-access journal dedicated to publishing original research, clinical reviews and protocols that deal with any aspect of child health. The provision of child health is multidisciplinary and the journal welcomes papers from all health care...
professions. Papers dealing with paediatric surgery, paediatric specialties, public health, healthcare provision and qualitative research will all be accepted. BMJ Paediatrics Open is an official journal of the Royal College of Paediatrics and Child Health. Until 31st May, BMJ Paediatrics Open is offering no publication fees. More information online.

MEDIA STRATEGY

New UNSW Media Contact

Staffed by a team of experienced journalists, the UNSW Media Office focuses on promoting newsworthy research and other achievements of the University through external media, the UNSW Newsroom and key corporate publications. The Office also publishes a fortnightly staff e-newsletter, News@UNSW.

Previously, the School of Women’s & Children’s was assigned to Dan Wheelahan, however Dan left UNSW earlier this year and has been replaced by Gabrielle Dunlevy.

Gabrielle can be contacted by phone - 9385 1933 or email.

Find an Expert meets Researcher Profiles

Sharing your expertise with the media can help raise your profile and increase the impact of your work. This is why UNSW Researcher Profiles has joined forces with UNSW Media Office to offer a superior profiling solution for researchers.

Now, when you edit your Researcher Profile, you will see a second ‘Expert’ tab, where you can add your details to the UNSW Newsroom Find an Expert Database. The Database is a resource for Media Office staff who field media enquiries; and for external journalists and media professionals seeking expert academic comment on a range of issues.

For more information and step-by-step screenshots of updating the ‘Expert’ tab within your Researcher Profile.

OPPORTUNITIES

STATS CENTRAL - WORKSHOPS

Stats Central, the UNSW statistical consulting unit, has released a preliminary timetable of Stats Central short courses for 2017.

Anyone can register for these courses, and they are available at greatly reduced rates for UNSW staff and students, thanks to support from the Research Division.

- Introduction to Regression modelling in R – June 19-21, 2017
- Statistics for Epidemiology – early November 2017
- Statistical Methods for Research Workers – mid-November 2017

All courses include catering and have daily fees of $100 for UNSW students, $200 for UNSW staff and $500 for external attendees (no UNSW affiliation).

Learn more about the courses and to register online.

CHILDRENS HOSPITAL EDUCATION RESEARCH INSTITUTE (CHERI) - IMPROVING STUDENT LEARNING THROUGH WELL-BEING

This conference presents the opportunity to learn firsthand from local and international experts on the key contributors to student well-being along with practical strategies to enhance it.

The importance of well-being to students’ learning and academic outcomes, as well as their positive social and emotional development is well documented. Research shows that family and school environments have a significant impact upon the well-being of children and young people. Teacher well-being is also critically relevant to whole school well-being, with a reciprocal, symbiotic relationship between teachers and students. Well-being can change over time and is influenced by the surrounding environment. There are many ways to enhance well-being.

This conference with its exciting panel of presenters is a not to be missed event for educators, school counsellors, psychologists, allied health professionals and all those in whose care rests the well-being of every child.

Topics include:
- Executive functioning: what is it, its importance to education and well-being, and how can we improve it
- Mental health, young people and effective interventions
- LGBTQ youth
- Youth self-harm and suicide
- Long term effects of childhood trauma
- Refugees and trauma
- Health and well-being in adolescents: protective and risk factors
- Cyber bullying
The Conference is being held from 25th-26th May at Parramatta RSL, Corner Macquarie and O’Connell Streets, Parramatta.

More information can be found online.

VIROLOGY RESEARCH LABORATORY – SEMINARS

The Virology Research Laboratory based at Prince of Wales Hospital holds regular, lunchtime research seminars including both local and international speakers on a broad range of subjects. The seminars are held on a Tuesday, between 1pm and 2pm. The next seminar is scheduled for 9th May 2017.

Notices will be circulated at least the week before and include a profile of the speaker and their presentation.

Dr Shafagh Waters from the School of Women’s & Children’s Health presented at the last seminar on her work on the ‘Development of novel treatments for cystic fibrosis.’ Dr Waters was appointed to her role of Postdoctoral Research Fellow and Lead Scientist of the Australasian Centre for Personalised Cystic Fibrosis Medicine (ACPCFM) in August 2016.

Her main research project has a strong translational focus, and aims to discover small molecules and peptides that are effective in correcting the trafficking and functional defects exhibited by the CFTR mutation, while additionally addressing inter-individual human population variability. Additionally, Dr Waters is using cutting edge technology to grow stem cell-derived human ‘mini organs’, or organoids, from the tissues of patients with cystic fibrosis.

For more information on the Virology Research Laboratory Seminar Series, please contact organisers Sonia Isaacs and Dr Sacha Stelzer-Braid.

PLUS ALLIANCE PRIZE

The PLuS Alliance was formed in 2016, bringing together King’s College London, UNSW Sydney and Arizona State University. The aim is to create, enable and deploy innovative research and education linkages to contribute to a sustainable future by collaborating in the areas of sustainability, global health, social justice, technology and innovation.

The inaugural PLuS Alliance Prize awards USD $50,000 annually to highlight innovation in research and innovation in education that:

• Addresses a globally-significant issue
• Makes a direct and positive impact, and
• Helps, or has the potential to help communities globally.

USD $25,000 is awarded in each of the categories of Research Innovation and Education Innovation, recognising outstanding contributions by individuals, groups, or organisations in addressing the greatest global challenges facing society.

The Presidents of each PLuS university will be final judges. Winners will be flown to London to attend the Times Higher Education Summit to be awarded the prizes. They will also have the opportunity to deliver a lecture at one of the PLuS Alliance universities over the following 12 months.

Applicants can come from across the world. However they must be nominated by students, staff or alumni from Arizona State University, King’s College London or UNSW Sydney.

Nominations close 12th May 2017 and can be edited until that date by the nominator and candidate (or team). Click the links below to nominate:

• PLuS Alliance Prize for Research Innovation.
• PLuS Alliance Prize for Education Innovation.

THE UCL MARMOT PRINCE MAHIDOL FELLOWSHIPS

The University College London Marmot Prince Mahidol Fellowships are available to researchers who are committed to reducing inequalities in health within their countries.

Applicants are likely to have completed doctoral training by the time of entry into the program in one of a variety of fields including, but not limited to, behavioural and social sciences, biomedical sciences, health professions and public policy. The flexibility of the program is designed to ensure inclusiveness and maximize the benefits reaped from the available resources.

Fellowships will last for up to one year with fellows being required to use the residency at UCL within the Institute of Health Equity (IHE) to produce the following outcomes: generate new secondary analyses or qualitative research or build a full research proposal that will shed light on effective international legislation, policies and programmes to reduce inequalities in health; write one collaborative research publication; and deliver research findings on inequalities in health at a seminar and/or conference.

Up to three awards for fellowships are available for 2017/18. Applications close 31st May 2017.

More information can be found on the UCL website.
**FRANKLIN WOMEN - MENTORING PROGRAM**

Franklin Women is a community of women working in health and medical research related careers. They have developed their newly-launched mentoring program in partnership with leadership consultants Serendis who have successfully delivered similar programs for women in other sectors.

Franklin Women were committed to developing a program that has qualities that align with their organisational values and aims, as well as one that meets a gap in the sector.

The Franklin Women mentoring program:
- Is a 6-month structured program facilitated by professional leadership coaches
- Connects female mentees with male & female mentors from different health research organisations across Sydney
- Provides new professional skills for both the mentees and mentors who participate

You can find the detailed program information on their [website](#), including key dates and application eligibility and process. Applications close 19th May 2017.

**SUPERSTARS OF STEM**

Science & Technology Australia has launched its ‘Superstars of STEM’ program - smashing society’s gender assumptions about scientists and increase the public visibility of women in STEM.

30 of the nation’s most dynamic scientists and technologists will be selected to undertake the program which aims to create role models for young women and girls, and work towards equal representation in the media of men and women in STEM.

The program will run from July 2017-July 2018 and will include advanced communication skills and provide them with the opportunities to use them - in the media, on the stage, and in speaking with decision-makers. It will also connect participants through a mentoring network, to encourage them to learn from women who have crafted a profile for themselves and who already serve as role models.

Women from all STEM disciplines are invited to apply, in fields including but not restricted to mathematics, technology, biology, medical research, geology, marine science, microbiology, engineering, physics, astronomy, and more.

Applications close on 23rd May 2017.

More information on eligibility and how to apply on Science & Technology Australia’s [website](#).

**ILP & HONOURS SUPERVISORS & STUDENTS**

**ILP & Honours 2018 Cohort**

Last month both disciplines of Obstetrics and Gynaecology and Paediatrics held information evenings for the 2018 Independent Learning Project (ILP) and Honours cohort. Thank you to all our new and continuing supervisors who came along and introduced themselves and the various projects available in their departments and research groups.

These events have been successfully running for a number of years now, and this year’s events were no exception. The combined information evenings attracted interest from over 70 students - approximately 25% of the total cohort for UNSW Medicine. This is by in large due to our supportive supervisors and co-supervisors, also our focus on providing adequate resources to students including peer-support, ethics, governance, statistics, IT, and hot-desk space.

ILP and Honours students are important to the School, as they play an important role in our research strategies as well as our educational objectives.

A reminder to all supervisors that the due date for the ILP and Honours application forms is fast-approaching and also that it is earlier than in previous years. The form is available on eMed and is due to UNSW Medicine by 12th June 2017.

Any queries about ILP and Honours supervision can be directed to Dr Sean Kennedy, Director of Education or Samantha McFedries, Research Manager for the School.

**Isaac Chan - Lancet Infectious Diseases**

Isaac Chan is a current UNSW Medicine Honours student who is quite remarkable. Isaac recently published in the Lancet Infectious Diseases (together with supervisors) on his work on tuberculosis in migrants.

Isaac undertook this research outside of the medicine curriculum, in his spare time. He is currently completing his Honours year under the supervision of Prof Susan Ramus, investigating ovarian cancer genes identified from exome sequencing of ovarian cancer families.

Post-migration follow-up of migrants identified to be at increased risk of developing tuberculosis at pre-migration screening: a systematic review and meta-analysis

Chan, I.H.Y., Kaushik, N., Dobler, C.C.
Background:
Post-migration follow-up of migrants considered at increased risk of developing tuberculosis based on pre-migration screening abnormalities (high-risk migrants) is implemented in several low-incidence countries. We aimed to determine the rate of tuberculosis in this population to inform cross-border tuberculosis control policies.

Methods:
We searched MEDLINE and Embase (since inception to Jan 12, 2017) for studies evaluating post-migration follow-up of high-risk migrants. Outcomes evaluated were the number of tuberculosis cases occurring post-migration, expressed as the tuberculosis incidence per 100 000 person-years of follow-up, as cumulative incidence of tuberculosis per 100 000 persons, and the cumulative incidence of tuberculosis at the first post-migration follow-up visit. Random-effects models were used to summarise outcomes across studies.

Findings:
We identified 20 publications (describing 23 study cohorts) reporting the pre-migration screening outcomes of 8 355 030 migrants processed between Jan 1, 1981, and May 1, 2014, with 222 375 high-risk migrants identified. The pooled cumulative incidence of tuberculosis post-migration in our study population from 22 cohorts was 2794 per 100 000 persons (95% CI 2179–3409; I²=99%). The pooled cumulative incidence of tuberculosis at the first follow-up visit from ten cohorts was 3284 per 100 000 persons (95% CI 2173–4395; I²=99%). The pooled tuberculosis incidence from 15 cohorts was 1249 per 100 000 person-years of follow-up (95% CI 924–1574; I²=98%).

Interpretation:
The high rate of tuberculosis in high-risk migrants suggests that tuberculosis control measures in this population, including more sensitive pre-migration screening, preventive treatment of latent tuberculosis infection, or post-migration follow-up, are potentially effective cross-border tuberculosis control strategies in low-incidence countries.

Funding:
Australian National Health and Medical Research Council.
Access full text paper online.

Indigenous student a shining example of the power of a mentor
22 February 2017  |  Dan Wheelahan  |  UNSW Newsroom

The first Indigenous student accepted into UNSW Medicine’s Honours program intends to pay it forward by mentoring students starting their training to become doctors.

Twenty-year-old Wiradjuri woman Ashley Towney is a shining example of the transformative power of education and what can result when a child is galvanised with self-belief.

Wiradjuri woman Ashley Towney has become the first Indigenous student accepted into UNSW Medicine’s Honours program. Photo: Leilah Shubert.

Growing up in the rural NSW town of Wellington, with few role models, Towney didn’t feel like she was capable of achieving much. That was until she met her Year Five primary teacher Ms Cheryl Ah-See.

Towney says after that school year she began to dream big.

“Cheryl’s mentoring boosted my confidence and self-esteem. She was an inspiration to me. When I saw that an Indigenous woman could obtain a teaching degree, this made me believe that one day, I could become a doctor,” Towney says.

With Towney still undecided about the best career path as she neared the end of Year 12, after some encouragement from Ah-See, she applied for and successfully completed UNSW’s three-week intensive Pre-Medicine program, an alternative entry pathway for Indigenous students.

This week Towney begins the fourth year of her medical degree, becoming the first Indigenous person accepted into UNSW Medicine’s Honours program.

The 12-month research program is offered to only 30 students each year – around one in ten of her class. All must achieve a distinction/high distinction average in their first three years of study.
Working under UNSW Associate Professor Nadine Kasparian, one of UNSW’s 20 Rising Stars, Towney will study the impact of anxiety on mothers and their unborn child following fetal diagnosis of congenital heart disease.

Ah-See, also from Wellington, left school teaching in 2006 to join UNSW’s Indigenous program unit, Nura Gili, as a student support officer. The program provides pathways to tertiary learning opportunities for Aboriginal and Torres Strait Islander people. UNSW has the highest retention rate for Indigenous students in Australia.

“It has been so pleasing to watch Ashley’s journey from a shy 12-year-old to a confident young woman who, given an opportunity and the right support, is now excelling at her studies and is well on the way to fulfilling her dream,” Ah-See says.

It wasn’t until Towney’s teenage years, volunteering at Nanima Pre-School where her mum is a childcare worker, that she saw first-hand some of the major health challenges facing Indigenous children. The experience solidified her ambition to ensure Indigenous families in rural areas have better access to Indigenous doctors.

Having a tutor who knows the course content and what to focus on also made a real difference. Now I want to pay it forward.

Towney’s story reflects research highlighted in the latest Closing the Gap report, which shows that Indigenous and non-Indigenous children with the same level of academic achievement at the age of 15 go on to complete Year 12 and higher education at the same rates.

It also found the target to halve the gap in Year 12 attainment for Indigenous students by 2020 is on track, one of the few shining lights in the report.

Towney says one of the keys to her academic success since beginning university has been studying in groups.

“Having a tutor who knows the course content and what to focus on also made a real difference. Now I want to pay it forward and, when I have the time, tutor medical students just starting out on their path to become doctors.”

Towney is already looking toward further training to become a paediatric cardiologist and surgeon.

“It’s not right that children living in the country can sometimes wait up to six months to see a paediatrician. I want to make a difference to their lives and ensure they get quicker access to the specialists they need.”

PHD OPPORTUNITY - Kawasaki Disease

A 3 year full-time position is available for a motivated researcher to undertake PhD study of the epidemiology of Kawasaki Disease (KD) in Australia. This work will examine historical and prospective incidence, disease patterns and outcomes of KD in Australia, as well as with clinicians’ attitudes towards the management of this condition.

The researcher will work with national and international experts in the field. The applicant will have the opportunity to learn skills in epidemiological research. Both clinicians and epidemiologic scientists are invited to apply. The position is fully funded with a generous stipend depending on background and experience. The successful applicant would be expected to apply for an independent scholarship once in post. The researcher will be based at The Children’s Hospital at Westmead and is expected to commence in mid-2017.

For further details please contact –

- A/Prof Davinder Singh-Grewal
- Prof David Brugner
- Prof Allen Cheng

Welcome New Students

Semester 1, 2017 has commenced and the School would like to welcome new PhD and Masters by Research students who have joined us.

PhD - Children’s Cancer Institute
- Sujanna Mondal
  Supervised by Dr Tao Liu.

PhD - Obstetrics & Gynaecology
- Gomes De Melo Tavares Ferreir
  Supervised by Prof Alec Welsh.
- Marina Pavanello
  Supervised by Prof Susan Ramus.

Masters of Medicine - Paediatrics
- Uma Visser
  Supervised by Conjoint A/Prof Charles Verge.

Christina Signorelli awarded MASCC/ISOO 2017 Young Investigator Award

Christina Signorelli has been awarded the Multinational Association of Supportive Care in Cancer and the International Society of Oral Oncology (MASCC/ISOO) 2017 Young Investigator Award.
ISOO) 2017 Young Investigator Award. Christina was selected by the MASCC Board from the top 20% of abstracts submitted to the conference. Investigators up to 7 years post-PhD are eligible to apply for the award which makes it an even more notable achievement for Christina, who is only two years in her PhD with the School of Women’s & Children’s Health. The award covers Christina’s travel and conference registration fees when she makes her way to Washington DC in June. Well done Christina!

**Valentina Rodriguez Paris - Harvey Carey Memorial Scholarship Recipient**

Congratulations to Valentina Rodriguez Paris, who was awarded the Harvey Carey Memorial Scholarship for her research on polycystic ovary syndrome.

Valentina is supervised by A/Prof Rob Gilchrist and Dr Kirsty Walters. Her research is titled: Impact of hyperandrogenism on oocyte quality and fertility in polycystic ovary syndrome.

The purpose of this scholarship is to encourage higher degree students to undertake research in one of the following disciplines:

- reproductive endocrinology
- infertility
- hypertension of pregnancy
- gestational diabetes
- polycystic ovarian disease
- menstrual disorders
- oral contraception
- menopause

More information on the scholarship is available online.

**Christopher Poulton - Interviewed by Crohn’s & Colitis Australia**

Christopher Poulton was awarded the The Mandy & Edward Yencken Postgraduate Research Scholarship by Crohn’s & Colitis Australia when he commenced his PhD with the School of Women’s & Children’s Health in 2015. Recently, Crohn’s & Colitis Australia visited Chris in the Westfield Laboratories at Sydney Children’s Hospital to discuss his research. The video of the interview can be viewed online.

**HDR Representative - SWCH Research Committee**

Christopher Poulton is the Higher Degree Research representative on the School of Women’s & Children’s Health Research Committee.

Chris’ role on the Committee is to raise issues and share achievements of the School’s HDR students, together with sharing notices and upcoming opportunities disseminated via the Committee to HDR students.

The Committee meets bi-monthly with the next meeting scheduled for 13th June 2017. If you have any issues or achievements you would like shared, please contact Chris by email.

**UNSW PhD Scholarships**

UNSW Sydney Postgraduate Research Scholarships will now be open for and assessed in four Rounds throughout the year. These rounds, named Round 1-4, will be open to both International and Domestic applicants.

The round numbers do not correspond with the same number Semester, so applicants need to ensure they visit the Key Dates page to check which scholarship round you should apply for. Late or Out of Round applications will not be accepted.

Round 1, 2017 has already closed. However, Round 2 is open for applications. Who should apply:

- Applicants currently in Australia wishing to start in Semester 2, 2017 should apply for this round.
- Applicants currently outside of Australia wishing to start in Semester 1, 2018 should apply for this round.

The deadline for applications is 12th May 2017.

Round 3, 2017 will close on 18th August 2017. This round is for applicants wishing to start in Semester 1, 2018.

The UNSW scholarships available to Domestic students are:

- Domestic Research Training Program (RTP) - previously called Australian Postgraduate Award (APA)
- University Postgraduate Award (UPA)
- Faculty top ups – attached to RTP or UPA

The UNSW scholarships available to International students are:

- International Research Training Program (RTP) - previously called International Postgraduate
Research Scholarship (IPRS)
• University International Postgraduate Award (UIPA)
• Tuition Fee Scholarship (TFS) plus a Research Stipend
• UNSW/Home Country Joint Scholarships
More information is available online.

For Supervisors: 8 modules to assist you in managing your HDR candidate:

UNSW Supervising Doctoral Studies resource is designed to help both new and experienced research supervisors to mentor candidates to a timely completion and enhance the professional practice of supervisors.

The module is accessible to UNSW Staff via Moodle. To access the module you will need your staff ID, and password for authentication PLUS a self-enrolment key. Step-by-step instructions on how to obtain a self-enrolment key can be found online.

Supporting HDRs Thesis Writing
29 May, 9.30am - 12.30pm
Supervisors will gain tools to help support the organisation and structuring of a research thesis and discuss issues and solutions to facilitate more timely completion.

Further information & to register.

Supporting HDRs’ academic reading and literature review
Wednesday, 7 June 2017, 9.30am - 12.30pm
Learn tips and tools for supporting your higher degree research candidates in reading and thinking about literature, so that timely completion is achieved.

Further information & to register.

EARLY CAREER RESEARCHERS

ECR Representative - SWCH Research Committee
Dear Early Career Researchers
I am your current ECR representative on the School’s Research Committee and the committee has instigated a number of initiatives for ECRs that I would like to update you on. Please take a look and provide any feedback, opinions or ideas so that I may relay them back to the committee on your behalf. I look forward to hearing back from you!

Best wishes,
Michael Bertoldo

- Oocyte Biology Research Unit

SWCH Early Career Researcher Best Publication Award
The School of Women’s and Children’s Health (SWCH) recognises the significance of increasing the competitiveness of ECRs, and acknowledges the importance of this period in attracting and retaining the best researchers to a career in women’s and children’s health. The aims of this award are to promote the publishing of high-impact, fundamental and translational research, and to increase the competitiveness of ECRs for fellowships. Applications will be called quarterly with 4 awards given per year. There will be a $250 cash prize for the successful applicants. More information is attached to this email.

The ECR mentoring program
Your supervisor is naturally your mentor; however researchers benefit from interactions with mentors external to their research group. Through this program, you can meet with a senior researcher outside your field (i.e. with no direct interest in your research) who will help you develop your career goals and build your CV by offering independent advice on your career development. Mentoring can play a significant role in our career paths and having a mentor has been shown to be tremendously beneficial to your research success. Thanks to Susan Ramus and Alec Walsh, the committee is in the final stages of establishing this program for its ECRs. We will have more information coming out to you soon.

Research techniques and capabilities exchange
This is a new initiative ensuring more efficient collaboration across our School. Its aims are to create a platform for collaboration between ECRs and HDRs in the School, to get expert advice, achieve our research goals quicker and potentially outsource experiments. We are in the process of establishing a ‘research techniques and capabilities register’ for our School. Using the register, we will be able to search for an experimental technique or resource and find out which groups in the School are already successfully performing that task. This initiative is for our School. Using the register, we will be able to search for an experimental technique or resource and find out which groups in the School are already successfully performing that task. This initiative is not limited to wet lab researchers, and is extended to our clinical conjoint staff that may have access to unique patient cohorts. This initiative is from one of our ECRs – Shafagh Waters, so if you have any questions, advice or would like to help out please get in email Shafagh.
Research benchmarking
As you may be aware, UNSW will soon introduce a new system, the BORIS System, for compiling research metrics on UNSW researchers. This will draw research metrics from ROS (Research Output System). Ensure your ROS profile is up to date as BORIS draws research outputs from the ROS database. It is also how your individual university web pages are kept up to date which is a good platform for promoting yourself and your research.

Writing for publication in academic journals
Tuesday 6 June 2017, 9.30am - 12.30pm
Are you an Early Career Academic at UNSW? Keep informed of opportunities and events designed to assist with making strategic and informed decisions about academic career trajectory.

Further information & to register

THINGS TO CHECK OUT

UNSW Medicine Events
A new weekly events email (subscription only) has just been launched to promote Medicine. All medicine staff and students are encouraged to sign up to receive the newsletter.

Enquiries about promoting events can be be directed to UNSW Medicine by email.

Franklin Women
Franklin Women is a community of women working in health and medical research related careers. Their aim is to bring together like-minded women to create opportunities for networking, personal and professional development and career progression, both in and outside of academia.

Franklin Women hold a number of events during the year (including mentoring, networking, and workshops on anything from social media to applying for funding). They also have a number of resources available on their website.

School Social Media
The School of Women’s & Children’s Health is on both Twitter and Facebook.

Here we share media articles, new papers, achievements and events both internally and externally to potential collaborators and consumers.

On Twitter we also have a “list” of staff, conjoints and collaborators which allows members to view tweets and content specifically from other members, to keep-up-to-date.

In short, this means you don’t need to tag our Twitter handle (@UNSWObGyn_Paeds) for your content to be shared on the School’s feed.

Any items you would like shared on social media can be emailed to Samantha McFedries, Research Manager.
PUBLICATIONS

Postpartum physiology, psychology and paediatric follow up study (P4 Study) – Study protocol
Davis, G. K., Roberts, L., Mangos, G., Henry, A., Franziska, P., O’Sullivan, A., Homer, C.S.E., Craig, M., Harvey, S.B., Brown, M.
*Pregnancy Hypertension*, 6 (4), pp. 374-379

Highlights:
- Establishes a protocol for a prospective postpartum follow up study.
- Includes women who were normotensive and hypertensive in pregnancy and their babies.
- Incorporates physiological and psychological assessments, defining new normal ranges.
- Includes physical and developmental assessment of their babies.
- Follow up at six months, two and five years postpartum

Background:
Women who have had hypertension in pregnancy are at greater risk of long term cardiovascular disease (CVD). Little is known about their cardiovascular risk postpartum or the effects on the woman’s mental health and the outcomes of their infants. In this project we will study the physiological and psychological health of women and the physical health and development of their infants six months, two years and five years after birth. We will establish normal blood pressure (BP) and other physiological parameters for young parous women thereby permitting a more sensitive assessment of post-partum BP and other cardiovascular risk markers in women who have had GH or PE. It will also determine the extent, if any, of psychological disorders in these women and developmental or other concerns in their babies.

Methods:
Women will be asked to participate if they have given birth in the preceding six months. They will be excluded if they had diabetes, hypertension, renal or other serious maternal disease prior to pregnancy or congenital anomaly in the pregnancy. We will recruit 292 women who were normotensive and their babies, 100 who had GH and 100 who had PE and their babies. They will be assessed at six months, two and five years postpartum.

Conclusions:
This study will re-define normal BP and other physiological parameters for young parous women thereby permitting a more sensitive assessment of post-partum BP and other cardiovascular risk markers in women who have had GH or PE. It will also determine the extent, if any, of psychological disorders in these women and developmental or other concerns in their babies.

Trials registration:
Australian and New Zealand Clinical Trials Registry Number: ACTRN12613001260718.

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Docosahexaenoic acid and bronchopulmonary dysplasia in preterm infants

Background:
Studies in animals and in humans have suggested that docosahexaenoic acid (DHA), an n-3 long-chain polyunsaturated fatty acid, might reduce the risk of bronchopulmonary dysplasia, but appropriately designed trials are lacking.

Methods:
We randomly assigned 1273 infants born before 29 weeks of gestation (stratified according to sex, gestational age [≥27 weeks or 27 to <29 weeks], and center) within 3 days after their first enteral feeding to receive either an enteral emulsion providing DHA at a dose of 60 mg per kilogram of body weight per day or a control (soy) emulsion without DHA until 36 weeks of postmenstrual age. The primary outcome was bronchopulmonary dysplasia, defined on a physiological basis (with the use of oxygen-saturation monitoring in selected infants), at 36 weeks of postmenstrual age or discharge home, whichever is earlier.
Results:
A total of 1205 infants survived to the primary outcome assessment. Of the 592 infants assigned to the DHA group, 291 (49.1% by multiple imputation) were classified as having physiological bronchopulmonary dysplasia, as compared with 269 (43.9%) of the 613 infants assigned to the control group (relative risk adjusted for randomization strata, 1.13; 95% confidence interval [CI], 1.02 to 1.25; P = 0.02). The composite outcome of physiological bronchopulmonary dysplasia or death before 36 weeks of postmenstrual age occurred in 52.3% of the infants in the DHA group and in 46.4% of the infants in the control group (adjusted relative risk, 1.11; 95% CI, 1.00 to 1.23; P = 0.045). There were no significant differences between the two groups in the rates of death or any other neonatal illnesses. Bronchopulmonary dysplasia based on a clinical definition occurred in 53.2% of the infants in the DHA group and in 49.7% of the infants in the control group (P = 0.06).

Conclusions:
Enteral DHA supplementation at a dose of 60 mg per kilogram per day did not result in a lower risk of physiological bronchopulmonary dysplasia than a control emulsion among preterm infants born before 29 weeks of gestation and may have resulted in a greater risk.

Validation of a quantitative method to measure neural respiratory drive in children during sleep
Chuang, S Y-C., Teng, A., Butler, J.E., Gandevia, S. C., Selvadurai, H., Jaffe, A.
Respiratory Physiology & Neurobiology, 239 (May 2017), pp. 75-80.

Aims:
Quantitatively measure and validate analysis of neural respiratory drive (NRD) using a commercial polysomnography system in children during sleep.

Method:
Surface electromyogram of the diaphragm (sEMGdi) recorded from primary snoring children were analysed. A subset was re-analysed to assess intra- and inter-investigator reproducibility. Effects of different bandpass filter settings (20–100 Hz vs 10–1000 Hz) on sEMGdi amplitude were evaluated.

Results:
Mean sEMGdi from 45 children aged 4.38 years (median; IQR 3.00–7.96) was 5.05 μV (SD 2.73). The sEMGdi had a high intra-subject intraclass correlation coefficient (ICC) of 0.88. sEMGdi analysis was reproducible with high ICC between occasions (0.99; 95% CI 0.98–0.99) and between investigators (0.98; 95% CI 0.97–0.99). There was also a high ICC (0.99, 95% CI 0.96–1.00) between the sEMGdi measured using different band-pass filter settings. Age and BMI were negative predictors of sEMGdi (p < 0.0001 and p = 0.0004 respectively).

Conclusion:
NRD in children during sleep as assessed by sEMGdi can be quantified in a reliable and reproducible fashion.

Infant lung function predicts asthma persistence and remission in young adults
Owens, L., Laing, I.A., Guicheng, Z., Souef, P. N.

Background and Objective:
Asthma in adults is associated with a persistent reduction in lung function from childhood, but this link has not been assessed back to infancy. Reduced infant lung function (ILF), a measure of antenatal and infant lung growth, is associated with asthma into adolescence. Our aim was to assess whether this link persists into adulthood and whether ILF can predict the remission of asthma symptoms in young adults.

Method:
The study cohort was an unselected full-term birth cohort of 253 subjects enrolled antenatally with lung function assessments at 1, 6 and 12 months (maximum expiratory flow at functional residual capacity, VmaxFRC), and 6, 11, 18 and 24 years (spirometry) of age.

Results:
Infants with VmaxFRC in the lowest quartile at 1 month had an OR of 5.1 (95% CI: 2–13, P = 0.001) for asthma at 24 years. Subjects with asthma at 24 years had a mean VmaxFRC at 1 month of 69% predicted (95% CI: 48–90%) versus 110% (95% CI: 101–119%) in non-asthmatic patients (P = 0.001). Subjects with current versus resolved asthma symptoms at 24 years had a
mean $V_{\text{max FRC}}$ at 1 month of 69% predicted (95% CI: 53–84%) versus 105% (88–123%), respectively (P = 0.003). Subjects with current asthma at 24 years had persistently lower lung function from infancy with a mean reduction of 16.2% (95% CI: 8.1–24.3%, P < 0.0001).

**Conclusion:**
Reduced lung function in early infancy is predictive of persistent asthma in young adults and a persistent reduction in lung function, suggesting abnormal lung development and growth in utero or very early in life.

Access full text paper online.

**PUBLICATION LIST**

Publications authored by UNSW Paediatrics academics, conjoints, & students from January 2017, and available online. If your publication is available online but is missing from this list, please email Samantha McFedries.

Publications are listed under UNSW Medicine Themes to illustrate how the School of Women’s & Children’s is contributing in all areas of medical research at UNSW Sydney.

**Cancer**


Bibby, H., White, V., Thompson, K., Anazodo, A. What Are the Unmet Needs and Care Experiences of Adolescents and Young Adults with Cancer? A Systematic Review (2017) *Journal of Adolescent and Young Adult Oncology*, 6 (1), pp. 6-30.


Lin, M., Sansom-Daly, U.M., Wakefield, C.E., McGill, B.C., Cohn, R.J. Health Literacy in Adolescents and Young Adults: Perspectives from Australian Cancer Survivors (2017) *Journal of Adolescent and Young Adult Oncology*, 6 (1), pp. 150-158.


**Infectious Disease, Immunity & Inflammation**


Non-Communicable Diseases


Kennedy, D., Webster, W.S., Hill, M., Ritchie, H.E. Abnormal pregnancy outcome associated with high-dose maternal tranylcypromine therapy: Case report and literature review (2017) Reproductive Toxicology, 69, pp. 146-149.


