Royal Adelaide Hospital Research Fund

RAH Researcher

Spring 2019 Raising funds for life-saving medical research at the Royal Adelaide Hospital

Research brings new hope for diabetes treatment

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Dr Tongzhi Wu, Senior Clinical Research Fellow at the Royal Adelaide Hospital (RAH), consults with a patient.

Welcome

Welcome to another action-packed edition of the *RAH Researcher*, the bi-annual newsletter of the Royal Adelaide Hospital (RAH) Research Fund—the hospital's very own fundraising arm.



Inside you'll find a range of stories and reports offering clear evidence of the impact you have made every day as one of our valued supporters.

We offer insights into the RAH's vital work with clinical trials, update you on the progress of Dr Maggie Killington's Acquired Brain Injury project and introduce you to Assoc. Prof Shilpanjali Jesudason, whose vital research is improving the lives of patients with kidney disease.

You'll also find details of a range of exciting events 'coming soon' - we hope to see you there. We have two more excellent Behind the Microscope events, as well as RAHsearch 2019 on 8 and 9 October. Learn about the latest advancements in medical research that would not be possible without your support.

As Fundraising Manager at CALHN, I have the privilege of meeting many amazing researchers - and equally amazing fundraisers, whose individual projects raise significant funds for the RAH Research Fund. Our researchers regularly pass on their gratitude for the overwhelming support of people like you. In particular, your recent donations towards the amazing work of researcher Dr Melissa Pitman into ovarian cancer, so beautifully presented at our inaugural Behind the Microscope event, Dr Maggie Killington's innovative research into Acquired Brain Injury, Dr John Bolt's important work in finding answers about prostate cancer and the brilliant work of Dr Tarik Sammour, seeking advancements in treating colorectal cancer, have enabled new efforts into research that will ease trauma, improve treatments and save lives.

Roger and Carol Horne are two great examples of community champions going 'the extra mile' to help others. Their recycling project on the South Coast raises thousands for the RAH Research Fund every year. I hope you enjoy reading their story in the newsletter, too.

Finally, I'm sure you will read our story on Dr Tongzhi Wu and his work finding effective and affordable new treatments for type 2 diabetes with keen interest.

The incidence of diabetes is reaching dangerous levels in our State, so this project has the potential to impact thousands of South Australians. I urge you to support this important research work if you are able.

Thank you for getting involved and supporting our efforts to raise funds for life-saving medical research at the RAH. Your kindness and dedication are so valuable.

Good wishes

Simon Blight Fundraising Manager CALHN

Researcher Profile Associate Professor Shilpanjali (Shilpa) Jesudason

"It is very gratifying to see patients who have been seriously ill, improve under our care and live the best life they can. I find it incredibly satisfying when we can take new knowledge learned from research and implement it in care."

Associate Professor Shilpa Jesudason, Staff Specialist Nephrologist, Central and Northern Adelaide Renal and Transplantation Service (CNARTS), Royal Adelaide Hospital and Clinical Director for Kidney Health Australia



The care of patients with kidney disease has come a long way from the first successful kidney transplant in Australia over 50 years ago. Associate Professor Shilpa Jesudason, Staff Specialist Nephrologist, Central and Northern Adelaide Renal and Transplantation Service (CNARTS), Royal Adelaide Hospital and Clinical Director for Kidney Health Australia, is committed to improving the lives of patients with kidney disease.

What is the focus of your current research?

The CNARTS Clinical Research group undertakes patient-centred multidisciplinary research with a focus on patient experiences at the time of starting dialysis, such as fear of dialysis needles, gastrointestinal symptoms, complications of kidney disease and transplantation, in-home dialysis and improving outcomes for indigenous patients. I also have a personal research interest in outcomes of pregnancy for parents with kidney disease.

What do you enjoy most about your work?

It is very gratifying to see patients who have been seriously ill, improve under our care and live the best life they can. I find it incredibly satisfying when we can take new knowledge learned from research and implement it in care.

What are some major milestones?

Our vision for CNARTS is to embed clinical research into clinical care. We have a research project on functional capacity and exercise for patients receiving home-based dialysis; another project on how to alleviate fear of needles and a large study trying to understand the patient experience when they first start dialysis. We are now embarking on a novel way of using computer modelling to understand how to give an antibiotic called Vancomycin to treat life-threatening infections.

How important is the RAH Research Fund?

Without donations we would simply not be able to conduct our research. Research funding assists with employing our qualified team and purchasing materials essential to our research goals. Kidney failure doesn't just affect the patient - it affects everyone around them. Through support there is so much we can do to help patients live the best life they can. **Diabetes Treatment Campaign**

Research brings new hope for diabetes treatment

Did you know that diabetes is one of the biggest chronic health challenges worldwide?

Around 1.7 million Australians have diabetes and one third of those are currently undiagnosed. Right now, one in every four hospital beds in Australia is occupied by someone with a diabetes related condition - and the disease unfortunately has its highest incidence in South Australia, with about 5.8% of the population diagnosed with diabetes.*

Dr Tongzhi Wu, Senior Clinical Research Fellow at the Royal Adelaide Hospital (RAH), has set his sights on changing the future for diabetes sufferers. His innovative research into how particular nutrients interact with the gut is a definitive step towards effective and affordable new treatments for type 2 diabetes.

This research is taking place within the RAH's BioMedical Precinct, utilising biopsies



from RAH endoscopy patients and clinical trials in volunteers with type 2 diabetes.

But to gain the most accurate results from his research, Dr Wu needs some specialised equipment. The LOGIQ E10 Ultrasound System enables 3D imaging to improve the investigation of gut function in people with or without type 2 diabetes.

This new equipment will have a positive impact for South Australian diabetic John and his wife, Lynda, both of whom have been diagnosed with type 2 diabetes. John and Lynda have already generously donated their time as RAH research volunteers and hope Dr Wu's study will bring greater relief and improve quality of life for people with diabetes.

Dr Wu says there is growing recognition that the stomach and intestines are central to the control of blood sugar levels after meals. With a better understanding of how certain nutrients interact with the gut, we can modify this process to advantage. "My research is focused on understanding the mechanisms by which nutrients, bioactive compounds and diabetes drugs interact with the gut," said Dr Wu.

Dr Wu says the gut 'tastes' contents in a similar manner to the tongue. Recent evidence suggests that bitter-tasting substances in the gut can reduce appetite and slow the emptying of meals from the stomach, by stimulating gastrointestinal hormone release. This in turn may improve blood glucose control and optimise efficacy of anti-diabetic medicines in people with diabetes.

"We all encounter bitter substances every day, not just from plant-based foods, but also from some amino acids, the building blocks of dietary protein, and from bile secreted into the gut," he said.

In a recent trial, Dr Wu gave diabetic volunteers a bitter compound inside a capsule, so that its taste in the mouth was masked. These volunteers ate substantially "Working at the forefront of research to help people suffering from type 2 diabetes is both exciting and rewarding. If we can secure this incredible 3D scanning technology we can move forward with developing new treatments."

Dr Tongzhi Wu, Senior Clinical Research Fellow at the Royal Adelaide Hospital (RAH)

less at their next meal than after a 'placebo' capsule.

"If we can stimulate this gastrointestinal hormone secretion using specific diets or physiological substances, particularly bitter tasting compounds, either alone or in combination with antidiabetic drugs such as metformin, we hope to reduce the rise in blood glucose after meals in people with type 2 diabetes," he said.

South Australians like John and Lynda say their condition has a major impact on lifestyle choices and quality of life.

"In late 2012, I volunteered for a 'prediabetic' study. My results came back as no longer 'pre' and I began taking metformin. When I heard about the 'Whey to Go' study in 2013, I signed up and have been a volunteer ever since," said John.

"I also had an answer for the classic grandpa 'afternoon' nap. It was not because I was getting older - it was sugar issues. "In six short years, my capacity to do things has decreased faster than I would have expected. Medication helps, but I have to avoid certain foods and I have to take things at a slower pace, especially when travelling, which Lynda and I love to do.



"I'm very grateful for research like this because we can pass it onto future generations. It's not really about me and Lynda, it's about everyone – all our children and grandchildren."

Diabetes research participant, John.



"Please continue your support, if you can. I can only continue my participation if this research is financially supported," said John.

"Working at the forefront of research to help people suffering from type 2 diabetes is both exciting and rewarding," said Dr Wu.

"I am indebted to the RAH Research Fund's donors for their generous support of my research so far. If we can secure this incredible 3D scanning technology, our findings will be confirmed faster and we can move forward with developing new treatments."

You can make your own contribution towards this vital equipment to help improve treatment for diabetes.

Please support the RAH Research Fund and Dr Wu's research. Your generosity will change lives. Please donate today!

Clinical trials bringing hope and alternative treatment

Did you know we conduct clinical trials at the Royal Adelaide Hospital (RAH)?



Around 400 clinical trials are currently being conducted and 100 new trials commence at the RAH each year. Thousands of patients have benefited from the additional monitoring they receive when involved in a clinical trial.

Since the opening of the new RAH, 200 clinical trials have commenced across many areas of medicine, including cancer, haematology, gastroenterology, hepatology, renal, rheumatology, respiratory, immunology, diabetes and endocrine, cardiology, orthopaedics and trauma, neurology, intensive care, mental health and allied health. We are also leading the way with patient recruitment initiatives.

Clinical trials are an integral part of patient treatment options, offering alternatives to standard of care treatment. We have two state-of-the-art clinical trial facilities within the hospital which ensure the number of clinical trials being conducted at the RAH continues to increase. Both have the capacity for commercial and investigator-initiated trials in healthy volunteers and patients.

Our **12-bed High Acuity Clinical Trials Unit** is ideally located within the ICU wing of the hospital, providing a key facility for early phase clinical trials. The unit's monitoring and diagnostic capacity includes ECG monitoring, continuous invasive and non-invasive blood pressure measurement, electroencephalography, and echocardiography. It has access to most speciality procedural and diagnostic services within the RAH.

The **Clinical Trials Centre** on Level 3 is similar to an outpatient clinic, with nine clinic rooms which are sound proof to ensure patient privacy. Other features include a densitometer, phlebotomy area, patient observation area with nurses station and kitchenette, wheelchair-accessible toilet, and sample processing room with a biosafety cabinet, centrifuges, monitored -20°C freezer, ultracold freezer and fridge.

The **RAH Respiratory Clinical Trials Unit** (**RCTU**) recently received an award for innovative use of social media to recruit patients to a clinical trial. The Society for Clinical Research Sites (SCRS) awarded the 2019 Asia-Pac Site Patient Recruitment Innovation Award (SPRIA Asia-Pac) to Jenny McGrath, RCTU Clinical Research Project Lead who gave the winning presentation at the recent SCRS Asia-Pac Summit in Melbourne. SPRIA Asia-Pac recognises and honours highly successful and innovative patient recruitment initiatives.

Campaign Follow-up

Thanks to you, this research will transform lives

Dr Maggie Killington (right), Coordinator of Research at South Australia Brain Injury, Rehabilitation Services meets with Dean Fyfe (left) and Cheryl Mason (middle).

In our last issue of RAH Researcher, we asked for your support with an innovative research project developed by researcher Dr Maggie Killington and her team, to help support children's adjustment to the confusing and often life-changing period after a parent suffers a brain injury.

The project is an extension of a pilot study which provided many insights from children and their families and a number of recommendations which the researchers hope to implement with support from Royal Adelaide Hospital (RAH) and Hampstead Rehabilitation Centre (HRC) clinicians. We spoke with Maggie to update you on the impact of your donations.

Maggie, how is the research progressing?

Thanks to the generous donations we have received, our study is well underway. We have appointed Kate Dawes, Principal Clinician Social Work at SA Brain Injury Rehabilitation Services as our Research Officer and in partnership with Dr Maayken van den Berg from Flinders University, we have commenced the technology development phase with gaming and technology experts.

Games will provide a non-threatening medium where children can be exposed to information about brain injury, begin to understand the journey they are facing and the changes in the person who has suffered a brain injury.

What are the next steps?

We plan to continue to develop helpful resources identified in the pilot study including videos, personal journey books, possibly online peer interaction and other educational resources and games.

Children and parents will be asked to test the resources, provide feedback about their suitability and advice about any necessary adaptations. We will also meet with clinicians in acute care, rehabilitation services and community facilities to understand how to facilitate translation of these resources to those who need them.

"Your support has been critical in progressing this vital research into helping support families coping with brain injury – thank you."

Dr Maggie Killington, Coordinator of Research at South Australia Brain Injury Rehabilitation Services



Roger Horne with special helper Scrubs the Bear. Roger Horne out collecting cans to raise funds for the RAH Research Fund.

Cans for Cancer

Changing lives one can at a time

When Don Dixon lost his wife to cancer, he decided to put the cans and bottles he was recycling at home to good use, and donate the proceeds to cancer research at the RAH Research Fund. Don decided to ask members of his local community to help collect as well, and was fortunate to gain the assistance of Roger Horne.

"I often dropped bottles round to Don's place and one day I told him if he needed a hand, to give me a yell. Next week he rang up and said yeah – come and give me a hand." That was way back in 2005 – and when Don moved from the South Australia's beautiful southern wine region to Kangaroo Island, Roger took over from Don. Since then Roger, with the support of his wife Carol, has taken Cans for Cancer to new heights, with strong support from local businesses and individuals.

The Cans for Cancer project has now recycled more than 2 million cans and bottles and raised more than \$100,000 for the RAH Research Fund – an incredible effort!

Roger has more than 35 supporters across Aldinga, Willunga, Port Willunga and McLaren Vale and a range of dropoff locations, either secure bins or local businesses. Restaurants including the Star of Greece and the Salopian Inn collect cans and Roger travels about for collection. Local event organisers such as the Levi Motorbike Club also allow him to collect cans from their events. Roger has received wonderful community support, such as Bendigo Bank supplying secure locks for the drop-off bins.

Cans for Cancer

"I really like helping people and collecting for cancer is such a good cause. Like many people, I have lost good friends to cancer and also both of my parents have had cancer. I'm pleased to help out and do what I can to help. It's so important to support organisations like the RAH Research Fund and the work they do with cancer research."

Step Behind The Microscope at the RAH

The RAH Research Fund has been delighted to bring researchers and donors together, face-to-face in a series of conversations about exciting possibilities for better treatments, greater wellbeing and potential cures. It's our chance to introduce you to some of our state's brightest minds and research talent.

We are delighted to announce two further Behind The Microscope events, scheduled for October and December. This is your opportunity to hear firsthand how your valuable support is put to work every day and meet members of our dedicated research community.



You are warmly invited to celebrate RAHsearch 2019 on 8 and 9 October 2019.

Join us as we share world-class research outcomes that would not be possible without your dedicated support. Meet our world-class researchers and learn about the latest advancements in medical research.

Hear about the exciting possibilities for better treatments and potential cures including; new therapies for lung cancer, using smartphones to predict better outcomes after surgery, which E-cigarette devices are the safest, giving the ROCKet to chronic pain after surgery and lots more!

This free event is open to everyone. As seating is limited, registrations are required to attend the research presentations only. Bookings close on 2 October.

To secure your place, call us on 7074 1445 or book here www.trybooking.com/541146

Adelaide Hospital

Royal

Behind the Microscope

Wednesday, 16 October 5:30-6:30pm

In this one-hour conversation at the RAH Lecture Theatre, Professor



Susanna Proudman will share insights on the topic 'What can patients teach us about autoimmune diseases'.

To book, visit www.trybooking.com/537423

Thursday, 12 December 10:30am-12 noon

Join us at the RAH Lecture Theatre for a special Behind The Microscope event to conclude the year.

For this event we have assembled many of the researchers you have helped support, to discuss progress on research into cancer, acquired brain injury, diabetes, chronic diseases and leukaemia, just to name a few. Each researcher will speak for 10 minutes on the topic 'Research in Review'.

To book, visit www.trybooking.com/537456

Melrose and RAH

Pioneering arthritis treatment together

You may have heard about the benefits of fish oil as a natural treatment – but did you know that Melrose and the RAH Rheumatology Unit have led the way in using fish oil to treat rheumatoid arthritis since the 1980s?

Professor Les Cleland of the RAH Rheumatology Unit began trialling fish oil capsules to help treat inflammatory diseases in the 1980s. The therapeutic dose, however, required patients to take 10 or more capsules per day, which was unaffordable, not to mention unpleasant. Professor Cleland decided to seek a better solution.

Liquid fish oil was not available at the time, so Professor Cleland purchased drums of

fish oil for bottling in the hospital dispensary. This proved unsustainable, so Professor Cleland approached Melrose founder, Geoff Steinicke, who was already known for bottling the first organic flaxseed oil in Australia under the Melrose brand.

Geoff agreed to source an odourless, lightly-flavoured fish oil and supply reasonably-priced 500mL bottles to the RAH, a one-month anti-inflammatory supply. Before long there was a stand of Melrose Liquid Fish Oil in every pharmacy in South Australia and across the country.

Creating better health outcomes was always the priority - not making a profit. Professor Cleland's arthritis patients were able to take fish oil if they chose and the initiative also allowed him to continue his important research.



Professor Cleland and his colleague, Professor Susanna Proudman, have conducted many studies into fish oil as a complementary therapy for rheumatoid arthritis and since 2006, Melrose has also donated a percentage of fish oil sales to fund research by Professor Cleland and his team.

Together, Melrose and Professor Cleland's research team have brought relief and comfort to rheumatoid arthritis patients across the country. We are so proud of their wonderful partnership.



Latest newsagency news!

Show your support

You can show everyone you know that you support the work of the RAH Research Fund by purchasing our wonderful branded merchandise. You might even tempt a friend or family member to lend their support, too.

All RAH Newsagency profits benefit the RAH Research Fund. We look forward to seeing you on your next shopping trip!

The Newsagency is open Monday to Friday 7.30am to 5.30pm, Saturday 9am to 4pm and Closed on Sundays and Public Holidays.



Scrubs Bear Waiting for you to take him home. Everyone needs a teddy bear! Adoption Certificate included.



Entertainment Book Hundreds of ways to save on dining and entertainment. Part proceeds go to the RAH Research Fund.



Pen and Stylus Great for touch screens and an excellent gift idea, too.

Enviro Friendly drinkware. Reduce your plastic use and look stylish too!



How to SAVE on RAH Car Parking

The last thing you want to worry about when you are visiting the RAH is the cost of car parking.

Patient families may purchase a 7 day car park pass for \$38, allowing unlimited access to the public car park for 7 days. Simply present the patient's UR number to the RAHRF Newsagency staff to receive your pass. The public car park is accessed via the boom gates.

Ask our friendly Newsagency team for more information.

Did you know....

Members of the RAH Research Fund Workplace Giving program receive a 5% discount at the RAH Newsagency when



purchasing Cards/Wrap, Gifts, Magazines and Stationery. Wear your lapel pin with pride to receive this discount!

Would you like to join the RAH Research Fund Workplace Giving Program? Please email Gabrielle Cespi at gabrielle.cespi@sa.gov.au or call 08 70741443 for details.



Funding boost for INJECT Program thanks to Ahrens

Ahrens, one of South Australia's most successful businesses, has made a generous donation that will improve treatment outcomes for dialysis patients at the Royal Adelaide Hospital (RAH).

The company's \$10,000 donation will be directed to a critical research project led by Associate Professor Shilpanjali Jesudason. The Injection and Needle Joint Education and Care Training (INJECT) program aims to reduce needle-related morbidities in adult dialysis recipients.

"We are thrilled to be helping South Australians facing the stress of weekly dialysis. This care and support is in line with our commitment to wellbeing and supporting local communities," said Stefan Ahrens, CEO of Ahrens.

"INJECT will empower patients to learn techniques to manage their fear, supported by their trained nursing team. We are so grateful for this support from Ahrens, which will benefit vascular access complications, dialysis outcomes, patient experience and wellbeing," said Dr Jesudason.

Where's Scrubs?



What a busy young bear is Scrubs! He's crossed the globe again, learned new ways to say 'hello' and even ridden a rollercoaster!

Here's Scrubs about to take tea with the Queen. Yes, Scrubs recently popped over to London for some tea and cucumber sandwiches with Liz at Buckingham Palace. He says the Queen was very interested in his career as RAH Researcher mascot.

Then it was off to San Sebastian, Spain. Scrubs learnt to say 'Hola!' and 'Weeeeeee!' when he was a daredevil bear on the rollercoaster.

In May, Scrubs hitched a ride in the suitcase of Veronica Eaton and enjoyed a safari in Tanzania with the Masai warriors. Scrubs learnt to say hello in Swahili - 'Hujambo!'

Fresh from his travels, Scrubs visited the team at Radiant Sales, a local Tupperware distributor in Mawson Lakes. He loved helping to answer questions at their fabulous Quiz Night, which raised \$931.05 for rare cancer research. Scrubs enjoyed meeting Directors, Belinda and Mark Freisler and their management team. Thank you so much, Radiant Sales.

Scrubs took a special hospital tour with Lois Engelhardt and friends (and had a cuddle!) In 1959, this wonderful group trained as nurses together at the old RAH. They loved seeing the new hospital, new technologies and stopped by the PARTY (Prevent Alcohol and Risk Related Trauma in Youth) Program, kindly donating \$50 towards PARTY.

Scrubs is a very dedicated mascot, raising awareness about the important work of the RAH Research Fund everywhere he goes. He'd love to keep you company at your next fundraising event or tag along on a trip interstate or overseas!

Pop into the RAH Newsagency and you can take your very own cuddly Scrubs home for \$30. Tag us with your photos of Scrubs so we can share on Facebook or email photos to contactus@rahresearchfund.com.au

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e RAH is an entity of the Central Adelaide Local Health Network (CALHN)

To find out more about the RAH Research Fund visit RAHresearchfund.com.au

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