

# YOUR FOUNDATION

AUTUMN 2022

FLINDERS FOUNDATION NEWSLETTER



## Thank You

for supporting kids  
and families at Flinders

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# Cameras keeping newborn babies, families connected



Parents Jax and Mick testing the neonatal camera system with Max, one of their twin boys, born at 27 weeks.

Thanks to your support, new bespoke camera technology is providing comfort and reducing stress for families of premature babies in the Flinders Medical Centre Neonatal Unit.

The camera system and another four pieces of cutting-edge equipment for the Neonatal Unit have been funded by Flinders Foundation thanks to support from the Freemasons of SA/NT through its Masonic Charities Trust, Amy Purling and the Fun Run for Prems community, the Volunteer Service for the Flinders Medical Centre, and the generosity of the community.

The new camera system, designed especially for the Neonatal Unit and the first of its kind in South Australia, will enable families and caregivers to view their babies at any time.

In the coming months, 40 cameras will be attached to individual cots, allowing families to watch their babies via a live stream on their phone or laptop, around the clock, even when they can't be with them.

The Flinders Medical Centre Neonatal Unit provides care for more than 1,400 sick and premature babies, and their families, from across South Australia and the Northern Territory each year.

Sometimes, family members experience the heartbreak of being separated from their babies for weeks or months because of work, or challenges associated with travelling long distances from regional SA or the NT.

Jax Roughton and partner Mick Gloede understand the difficulty of being away from home with newborn babies. The pair was rushed onto an emergency flight from Roxby Downs to Flinders Medical Centre in the middle of the night when Jax went into premature labour.

Jax and Mick visited Max and Doug, who were born at 27 weeks, in the Neonatal Unit three or four times every day, experiencing the heartache of having to say goodbye to their tiny twins each time.

*"It was not nice at all having to leave them. We would wake up during the night and wonder how the boys were doing. We would call the Neonatal Unit and they would reassure us. The staff are fantastic. It was never a bother for them, but the cameras were a God send,"* Jax says.

*"Instead of calling the unit, we could just turn on the camera and see that the boys are okay. It would give us peace of mind and kept the nurses free to do their important work."*

Jax and Mick were able to send a video link of the twins to their parents, who were yet to meet their new grandchildren in person.

Doctors and nurses will also use the camera technology to provide consultations remotely with families and provide updates while their babies are being assessed and treated.

## Extra equipment for the Neonatal Unit

The cutting-edge equipment includes a Neutrally Adjusted Ventilatory Assist (NAVA) mechanical ventilator, which helps a baby to breathe, and two intensive care incubators. Some of the sickest babies in the unit will also benefit from a new monitor to measure their carbon dioxide levels, rather than having to use a painful heel prick, as well as a video laryngoscope which helps clinicians to safely intubate babies.



# Machine learning for ear infection diagnosis

Thanks to donors like you, Dr Jacqueline Stephens has received a Flinders Foundation Health Seed Grant to investigate the use of machine learning in diagnosing ear disease in children.

Most children will experience otitis media (ear infection) at least once before the age of five. Typically, childhood ear infections resolve on its own but can persist, requiring antibiotics and even surgery.

Ongoing, untreated ear disease can have negative impacts on a child's development. Aboriginal and Torres Strait Islander children experience ear disease from an earlier age, more often and for longer durations than other children.

Early detection is crucial for ensuring timely and appropriate treatment, but current methods to diagnose ear disease and associated hearing loss can be complicated, expensive, and hard to access in rural or remote locations because of a lack of equipment or specially trained professionals.

Machine learning is when a computer algorithm improves the more it reads and uses particular data. The more data it reads, the smarter decisions it then makes – the machine learns more specifically what its looking for.

Dr Stephens said this technology had the potential to simplify the detection process, and enable community-based workers and less confident technicians to more easily identify children with ear disease.

“The benefit of improved and easier diagnostic testing, particularly in community settings, has the

potential to simplify diagnosis and, thus, ensure children receive timely treatment. This will minimise the impact of ear disease on health and wellbeing,” Dr Stephens said.

“This multifaceted project will bring us closer to our long-term goal to develop a portable diagnostic device that provides immediate feedback and allows a single operator to perform accurate and reliable ear health screening in community settings.

*“The prompt treatment of children with otitis media will help to ensure the long-term impacts of this condition are avoided.”*

**Read about all 35 projects funded in the latest Seed Grant Round on our website. These grants are made possible thanks to you!**



# Remembering Arthur

A little boy who spent only 36 hours on this earth is helping to create better outcomes and experiences for babies, and their families, in the Flinders Medical Centre Neonatal Unit.

Arthur William McConachy was born at Flinders on 28 February 2021.

When Arthur was born, doctors discovered he had experienced a lack of oxygen at some stage during the pregnancy. His organs were too damaged to recover and, sadly, he passed away two days later in the arms of his parents, Huw and Steph.

In a show of support from afar, a friend in Singapore – where Huw (pictured left) and Steph (pictured right) had lived for three years – set up an In Loving Memory page dedicated to Arthur with a goal of raising \$1,000.

About six weeks after Arthur passed away, Huw and Steph took ownership of Arthur's In Loving Memory page

and directed their grief into raising money for the Flinders Neonatal Unit.

*"We couldn't save Arthur, but we could help other families in similar situations to us and other babies," Steph says.*

*"We had the worst possible thing happen to us, but we focused on how we could channel our love and our parenting energy into something positive."*

In a reflection of their incredible humility, Huw and Steph were grateful for the care they received during their most difficult time.

*"The effort that the doctors and nurses went to was just amazing. We wanted to give back because everyone gave so much to us, and went above and beyond," says Huw.*

*"It's also a nice way for us to celebrate Arthur."*

The couple talked with Dr Scott Morris, Interim Head of Unit, Neonatal Unit, and Flinders Foundation to find out the best way to support babies and families at Flinders.

Huw and Steph set a goal to raise \$10,000 and asked the Neonatal Unit for suggestions of items they could fund. Instead of choosing just one or two items on the list, the driven and ambitious couple decided to revise their goal and fund all the equipment.

*"In all, the items totalled \$35,500, so I said, 'Alright, that's our target.'" Steph says, with a laugh.*

*"Huw thought I was crazy!"*

## Fundraising success ... and a new goal!

Huw and Steph shared the fundraising page to their networks and held a quiz night in their hometown of Port Elliot. Through hard work and the incredible support of the community, who donated prizes and silent auction items, the event was a huge success.

*"It was amazing. We raised \$16,000 on the night and had already hit our target,"* Steph says.

*"We went back to Flinders Foundation and the Neonatal Unit and asked, 'if budget wasn't a limit, what do you really want?' They came back with a broader list of equipment and technology that added up to about \$100,000 and we said, 'Okay, we'll raise \$100,000 instead.'"*

**So far, Huw and Steph have raised more than \$85,000 and are on track to reach their amazing goal of \$100,000 by the end of the year.**

Through their generosity, babies and families in the Flinders Neonatal Unit will benefit from a pre-term incubator, defibrillator machine, height-adjustable bassinet, breast milk pumps and milk warmers and a cooling machine, which is used to cool babies like Arthur who experience birth asphyxia.

The height-adjustable bassinet helps mums to more easily interact with their babies while they are in bed and makes it possible for parents to travel outside with their baby to other areas of the hospital.

*"We've heard stories about people who have used the bassinet. Sadly, their babies have passed away, but because of this bassinet they were able to have some beautiful time with their babies on the roof-top garden. The bassinet isn't life sustaining, but I know we cherish every moment we had with Arthur and to have your baby outside breathing fresh air with the sun on their back is lovely.*

*"Hearing those stories warms our hearts."*

*Arthur wasn't here for very long, but he can have an impact and leave a legacy in that way. People won't know it was him, but we do.*



Guests enjoying Huw and Steph's quiz night, raising money for the Neonatal Unit at Flinders



## Working together to prevent, cure and care

You can raise money for a cause close to your heart through Flinders Foundation, just like Huw and Steph.

No fundraiser is too big, or too small. Simply choose an activity that suits you and our Community Fundraising team will support you to help make it a success! For more information call 08 8204 5216 or email [community@flindersfoundation.org.au](mailto:community@flindersfoundation.org.au)

# Planting seeds of hope

**Thanks to You** Your support is giving hope to people affected by some of the most devastating types of cancer.

**Thanks to you**, Flinders Foundation provides researchers at Flinders with annual seed grants to help them make the next medical breakthrough.

This year, four cancer research projects have been funded through

the Flinders Foundation Health Seed Grant Round, supported by Flinders University, Tour de Cure, Foodland, funds raised through the 2021 Pink Yellow Blue Carnival, and generous donations from the community.

The exciting new projects aim to improve the lives of people affected by advanced prostate cancer, colorectal cancer, multiple myeloma and pleural mesothelioma.

## A/PROF CRAIG WALLINGTON-GATES Exploring a new treatment for multiple myeloma



Associate Professor Craig Wallington-Gates and his team will explore a recently described cell death mechanism termed 'ferroptosis' as a novel approach to treating multiple myeloma.

Ferroptosis has been linked to cell death associated with degenerative diseases such as Alzheimer's disease, as well as stroke and traumatic brain injury. It's possible ferroptosis may also have a tumour suppressor function that could be harnessed for cancer therapy.

*"This research represents the first few untrodden steps of a much larger future research effort to characterise and exploit ferroptosis for the treatment of aggressive blood cancers," A/Prof Wallington-Gates said.*

*"Not only does this research proposal have potentially translatable longer term outcomes, but it will also significantly contribute to biological science by increasing our knowledge and understanding of a recently described cell death mechanism and how it relates to these blood cancers. This has the potential to advance science and save lives."*

## DR JIANLING XIE New hope for advanced prostate cancer treatment



Dr Jianling Xie will investigate a potentially 'game-changing' new treatment for people with prostate cancer. Currently, there is no cure for metastatic prostate cancer and treatments, including hormonal therapies and chemotherapy, can cause significant side effects.

Dr Jianling Xie's team have identified a possible new target for the treatment of metastatic prostate cancer. They have found that inhibiting the activity of a protein chaperone called 'PDIA1' can block the growth of and kill aggressive prostate cancer cells.

*"This is a novel and unique finding; no one has tested whether PDIA1 inhibitors can be used as a therapy for prostate cancer," Dr Xie said.*

*"In the long-term, this line of research could deliver a game-changing new therapy. If successful, it could have a major impact on how we treat prostate cancer, a critical outcome for the more than 3,000 men who die from prostate cancer in Australia each year, as well as their families and loved ones."*

## DR ASH HOCKING

Creating 3D 'mini tumours' to personalise mesothelioma treatment



Pleural mesothelioma is a devastating cancer arising in the cells that line the lungs and chest wall.

Dr Ash Hocking aims to better understand how mesothelioma tumours grow and develop personalised therapies based on how individuals' own tumour cells respond to therapies in the lab. Personalised therapy is becoming a possibility with the use of innovative cancer organoid models where a patient's own cancer cells are used to create three-dimensional 'mini tumours in a dish'.

For the first time, Dr Hocking and her team are aiming to develop organoid models of mesothelioma to determine whether they replicate the unique characteristics and drug sensitivities of the patient's original tumour.

*"This research will provide us with important proof-of-principle data that help us determine whether drug testing of organoid models of mesothelioma can help guide personalised therapy,"* Dr Hocking said.

*"Ultimately, results from this study could impact survival outcomes and quality of life by ensuring each patient receives the most effective therapy for them, thereby limiting their exposure to ineffective therapies and any associated drug toxicities."*

## DR JEAN WINTER

Stopping colorectal cancer in its tracks



Dr Jean Winter and her team will use seed funding to develop a non-invasive screening tool to better detect pre-cancerous lesions and prevent people from developing colorectal cancer.

Current guidelines recommend the faecal immunochemical test (FIT) – a test which detects small amounts of blood in faecal samples – to screen for colorectal cancer. FIT is very effective in detecting cancer, but only detects a minority of pre-cancerous lesions.

Dr Winter believes there is potential for FIT to be improved to detect pre-cancerous lesions by adding sensitive molecular biomarkers.

*"This proposal will deliver proof-of-principle evidence to show that DNA methylation biomarker testing in combination with quantitative faecal blood levels dramatically improves the sensitivity of FIT samples for pre-cancerous lesions,"* Dr Winter said.

*"This would allow direct clinical implementation of an enhanced and repurposed screening tool that is already undertaken by millions of Australians every year through the National Bowel Cancer Screening Program."*

## A world-class anniversary, thanks to your support

This year, we are celebrating the 10-year anniversary of the Flinders Centre for Innovation in Cancer

(FCIC). A world-class centre for integrated care, FCIC is a focal point offering innovative clinical services and laboratories for leading cancer researchers.

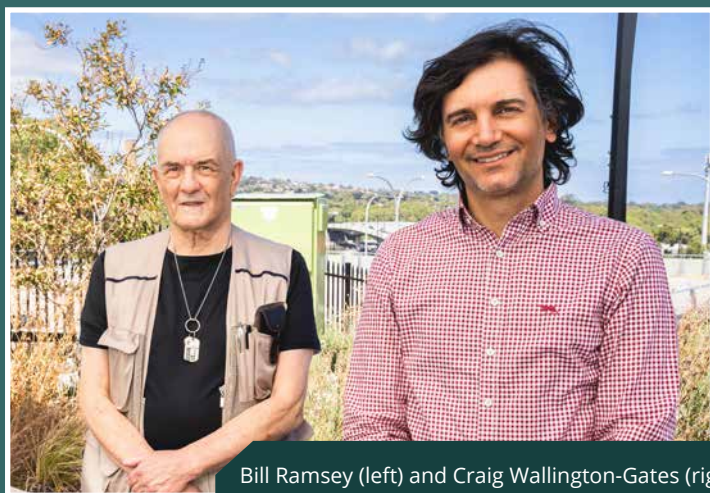
Flinders Foundation first started raising funds for FCIC in 2005.

**Your generosity over many years helped make the dream a reality in**

**April 2012, when the doors of the \$30 million FCIC officially opened.**

We look forward to sharing stories about the impact the FCIC has had in our community throughout the year. If you have a story you would like to us to feature, we'd love to hear from you! Please contact Katrina: [kgill@flindersfoundation.org.au](mailto:kgill@flindersfoundation.org.au)

# Jane Ramsey's stay at Flinders was short, but her legacy will be long-lasting



Bill Ramsey (left) and Craig Wallington-Gates (right)

Thanks to the generosity of the Ramsey family and support from Flinders Foundation, the Jane Watson Ramsey PhD Scholarship in Multiple Myeloma Research has been established to further groundbreaking research at Flinders University.

Jane was diagnosed with multiple myeloma in 2019 and referred to Flinders where she could be cared for by clinician and researcher, Associate Professor Craig Wallington-Gates – Head of Myeloma and Amyloidosis Services at Flinders Medical Centre and the Multiple Myeloma Translational Research Laboratory at Flinders University.

Unfortunately, by that stage Jane was too unwell to participate in treatments or trials that could prolong her life, but she developed a strong bond with A/Prof Wallington-Gates, says her husband, Bill.

A retired Junior Primary School Teacher, Jane was interested in learning more about the research into multiple myeloma and was inspired to support A/Prof Wallington-Gates and his team.

*"It was early in the piece when Jane was in palliative care at Flinders. I think she knew she didn't have much time left,"* Bill says.

*"I was sitting with her one evening. We were holding hands and Jane said, 'I want you to do something for me. When I die, I want you to sell the block of land and give the proceeds to multiple myeloma research at Flinders'."*

Sadly, Jane passed away on 2 November 2019 – 22 years to the day since Jane and Bill were married at her parents' house in Hahndorf. Bill fulfilled Jane's wish, organising the sale of Jane's piece of land and working with Flinders Foundation to find the best way to honour her memory.

A/Prof Wallington-Gates says Jane and Bill's incredible kindness has the potential to change the lives of people affected by multiple myeloma.

*"I treasure my memories of Jane and continue to be overwhelmed by her and her family's generosity and passion for medical research,"* A/Prof Wallington-Gates says.

*"Caring for Jane was incredibly special, and she always trusted in my judgement and ability to do what was best for her. I am eternally indebted to Jane and her family, and this PhD scholarship will be one of her enduring legacies, through which I hope a cure for multiple myeloma will be found."*

Bill has remained in touch with A/Prof Wallington-Gates and enjoys receiving updates about his research.

*"I just hope we help somebody to find a cure for multiple myeloma. Jane wanted that money to go towards something and I know it's going to help somebody – I'm absolutely convinced of that,"* Bill says.

*"This was Jane's wish, and I'm more than pleased to help her fulfil it."*



**Leaving a legacy through an in memory donation, like Jane, or through a gift in your will are just some of the ways you can support medical research and patient care through Flinders Foundation.**

Every gift counts and we can direct your support towards an area of your choice. Our team can talk you through the steps. Contact us on 08 8204 5216 or email [supporters@flindersfoundation.org.au](mailto:supporters@flindersfoundation.org.au)