



Tackling bowel cancer from all angles

Thank You

for supporting cancer
research at Flinders [page 6](#)

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Impact updates...

Flinders Foundation's generous supporters are funding a range of new research projects and patient care improvements across a variety of illnesses and diseases.

Here, we share a few updates on how your support is helping to improve the health of those in our community. Thank you!



'Airvo' providing comfort to patients at end of life

Palliative care patients with an alternate airway such as a tracheostomy or laryngectomy – generally as a result of cancer treatment – are benefiting from a new 'Airvo' portable humidifier to help them to breathe easier and more comfortably.

"Normally, people breathe through their nose which is where air is filtered, moistened and warmed, so when it reaches the lungs it has gone from room temperature to a lovely 37 degrees - the temperature which our lungs are used to and keep everything functioning normally," Head and Neck Coordinator, Nurse Practitioner Tracey Nicholls explains.

"But when a patient has a tracheostomy tube or a laryngectomy, breathing occurs through an opening in the neck and the normal heating and filtering system is bypassed.

"So artificially warmed and moistened air through the Airvo is very comforting and more normal for the lungs to process and provides that extra comfort in a patient's final days by reducing secretions and the need for suctioning and coughing."



Handheld ultrasound to aid chemotherapy

A handheld ultrasound machine, specifically designed to assist with difficulty accessing veins during chemotherapy treatment is on its way to the Flinders Medical Centre Infusion Suite thanks to the fundraising efforts of our Dry July heroes who gave up alcohol and other treats for the month.

It will benefit patients with 'tricky veins' like Kylie Constant (pictured) - a Dry July participant herself - who is receiving chemotherapy for stage 4 metastatic breast cancer.

Thank you!

Earlier this year we shared Neil's story with you.

Diagnosed with prostate cancer at 45, thanks to the specialist care and cutting-edge research happening at Flinders, Neil is now feeling hopeful for the future.

Thank you for your generous response to Neil's story and raising nearly \$40k for cancer research and care at Flinders!



New technology giving babies like Arthur the best start



Baby Arthur with parents Dajana and Tom.

Arriving in a hurry, and born in the breech position, little baby Arthur had a rough and scary start to life.

Stuck during delivery and deprived of oxygen for a few minutes, he was resuscitated and medevaced from the Riverland to Flinders Medical Centre for specialist care in the Neonatal Unit.

There, he was placed on new advanced cooling equipment, which administers life-saving 'hypothermia treatment' to newborns affected by lack of oxygen during birth.

The machine – called the Arctic Sun – swaddles the baby in cooling pads to 'cool' their core body temperature at a continuous 33.5 degrees for 72 hours, before 'warming' them for 12 hours in a process designed to reduce the likelihood of brain damage.

The machine, which is expected to be used on between 15 and 20 babies at Flinders each year, is the first of its kind in South Australia, and with its continuous temperature monitoring and adjusting, and easy set up and use for staff, it supersedes previous cooling technology used in the unit.

While being cared for in the Neonatal Unit, Arthur also used the 'Babyroo' - a new state-of-the-art 'open air' neonatal intensive care cot which is also the first of its kind in South Australia and only the second in Australia.

With an in-built ventilator, heating, display screens and weight scales, the cot has everything required to care for the unit's tiniest and sickest babies, whilst also being light and compact allowing for easy transport and emergency resuscitation.

Importantly, parents can also bond with their baby during a challenging time, with the cot's open top allowing

for precious contact and memorable first touches - something which was incredibly special to Arthur's parents Dajana and Tom.

"The first days were tough because he was just so cute, but we couldn't hold him," Dajana recalls.

"He's been doing all the right things and the nurses have been so lovely at explaining everything to us - we've also come to realise this technology is incredible and we're glad he's been able to have this care.

"We just can't wait to take him home."

Neonatal Associate Nurse Unit Manager Jacqui Glazbrook said neonatal staff were excited by the arrival of both pieces of advanced technology to help some of the 1,300 babies cared for in the unit each year.



By giving babies access to the best technology, it gives them the best chance for the best start in life.

Jacqui Glazbrook

Funds used to purchase this vital equipment were raised by the friends, family and generous community of Arthur McConachy, and Maria and Leong Foong in memory of baby Melisa.

Get in touch to find out how you can support Flinders' tiniest patients.

‘Helper drugs’ hold hope for childhood dementia



Dr Adeline Lau

Sanfilippo syndrome is a rare genetic condition affecting around 1 in 70,000 children.

Flinders University researchers hope finding the right combination of artificially-made enzyme and ‘helper drugs’ could provide a potential new treatment for Sanfilippo syndrome – a rare genetic condition and type of childhood dementia with which sadly most children will never reach adulthood.

Dr Adeline Lau, who is working alongside Flinders’ childhood dementia research expert Professor Kim Hemsley has grown cells made from young patients with Sanfilippo syndrome.

Thanks to the support of a Flinders Foundation Health Seed Grant, the cultured cells are then treated with different mixtures of enzymes and helper drugs to see which combination is the most effective at improving the disease.

“Sadly, there is presently no approved therapy for children with Sanfilippo syndrome, with patients generally only living until their mid-to-late teenage years,” Dr Lau explains.

“A potential treatment option is ‘enzyme replacement therapy’ which delivers artificially-produced enzyme to the patients, either through their blood or directly into the cerebrospinal fluid that surrounds the brain using a special port – however, getting enough enzyme to the brain has been difficult so far.

“If our ‘helper drugs’ make the enzyme replacement treatment work more efficiently, then patients may show improved health outcomes.”

‘Helper drugs’ - or pharmacological chaperones as they’re technically known - are designed to attach to misfolded or misshapen proteins which occur in some genetic diseases to help them fold into the right shape.

When effective, this can improve the function of these proteins and potentially treat the underlying health problem caused by the misfolded proteins.

“Our collaborator Professor Vito Ferro and his colleagues from the University of Queensland, have designed and synthesised a panel of possible helper chaperone drugs and we have been testing these drugs here at Flinders to find out which ones work best on cells affected by the disease,” Dr Lau explains.

“Now, with the support of Flinders Foundation, we’re evaluating which combination mix and dose of helper drugs and artificially made enzyme, gives the best treatment results.”

Dr Adeline Lau

“Ultimately, we would like to develop safe and effective therapies for all Sanfilippo patients, because there is presently no approved treatment or cure and so the affected children progressively lose their cognitive skills, ability to speak and walk amongst many other symptoms.”

The treatments that show the most potential in the Sanfilippo patient cells grown in the laboratory will undergo further evaluation and testing in additional Sanfilippo models to establish whether they improve the disease.

Thank You for helping the researchers at Flinders in their quest to develop new treatments and save lives.

Protecting women and babies from preeclampsia

Early findings indicate researchers could be on the right track to offering new strategies to control blood pressure, bringing hope for mothers and babies affected by the life-threatening pregnancy complication preeclampsia.

Working alongside Flinders University's Dr Amy Wyatt, PhD candidate Demi Georgiou is investigating whether pregnancy zone protein (PZP) – a molecule found in large amounts in the blood of pregnant women – controls the activity of a second protein, called chymase, that has a role in increasing blood pressure.

"The results generated so far suggest that during pregnancy, PZP is an important binding partner for chymase, with its likely role to facilitate the removal of chymase from the bloodstream and other biological fluids, thereby helping to control blood pressure," Demi explains.

"We need to do further experiments to confirm this is the case, but this is an important preliminary finding considering that elevated blood pressure is a hallmark of preeclampsia, a potentially life-threatening complication of pregnancy."

"Targeting the PZP-chymase interaction could offer a new therapeutic strategy to control blood pressure."

"By performing experiments that help to reveal how blood pressure is normally controlled in pregnancy, we are contributing to the framework for designing novel



Demi Georgiou

Preeclampsia is a serious pregnancy complication affecting millions of women worldwide that can lead to life-threatening conditions for both mother and baby.

Each year, it is associated with approximately 70,000 maternal deaths and 500,000 fetal deaths globally.

strategies for protecting women and babies from the dangerous effects of high blood pressure in pregnancy," Demi says.

"Additionally, our research has broader relevance to hypertension (high blood pressure) independent of pregnancy, which occurs in more than one billion people worldwide."

Demi's project has been supported by a Flinders Foundation Health Seed Grant, with the project soon progressing to investigate what happens in the presence of cultured human cells and in human biological fluids such as blood plasma from pregnant women.

Your generosity provides vital support for medical research and patient care at Flinders. *Thank You*

Underage children and alcohol

Professor Jacqueline Bowden's latest research is centred on developing ways to help inform parents and adolescents about the impact and dangers of supplying alcohol to help discourage them from doing so.

"Parents commonly believe that introducing their kids to alcohol in a 'controlled' way, such as a small glass of wine at Sunday lunch, will de-mystify alcohol and promote a responsible attitude towards drinking," Professor Bowden says.

"Unfortunately, research shows that supplying alcohol to underage kids can lead to an earlier onset of risky drinking behaviours and have negative health consequences."



Professor Jacqueline Bowden

Associate Professor
Erin Symonds and
Geri Laven-Law.



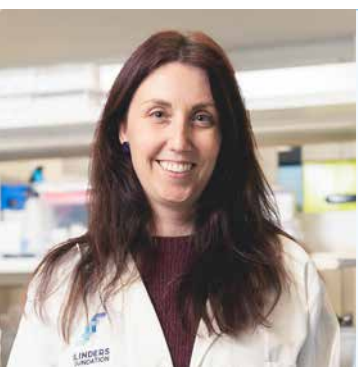
Tackling bowel cancer from all angles

With it estimated that 1 in 20 people will be diagnosed with bowel cancer in their lifetime – including rising rates in people under 50 - the Bowel Health Research Team at Flinders are tackling bowel cancer from all angles. **And your support is helping them. Thank you!**

Flinders Foundation Seed Grant funding has helped get bowel cancer research projects up and running, enabling researchers to then go on and secure larger funding grants to progress their research even further.

“Bowel cancer is still one of the most common cancers in Australia, so our research is really focused on finding the best ways to detect and prevent it,” says Associate Professor Erin Symonds, Team Leader of the Flinders Bowel Health Service.

“I feel like we’re on the edge of making a difference, and with support of our research, we hope that we can prevent the risk for late-stage bowel cancer and stop hearing about people who are having their bowel cancer go undetected.”



The wide-ranging research benefits people like Renee, who was diagnosed with stage 3 bowel cancer at 33. A Flinders patient and researcher, Renee shared her story in last year’s fundraising appeal to support vital research. **Thank you for supporting this important cause.**

The Bowel Health Research Team’s work includes:

- Listening to experiences of those affected by bowel cancer to determine ways to better address the needs of young people with bowel cancer
- Working to identify new bowel cancer biomarkers in blood to provide additional screening methods
- Identifying bacteria associated with bowel cancer in the hopes of detecting pre-cancerous ‘polyps’ before bowel cancer develops
- Determining ways to safely reduce how often people need a colonoscopy whilst maintaining adequate bowel cancer surveillance for patients
- Looking into diet and lifestyle factors which can reduce bowel cancer risk
- Working with the ‘SCOOP’ team carrying out surveillance on around 9,000 residents in southern Adelaide who have had, or are at an increased risk of, bowel cancer to make sure they are closely monitored for the earliest signs of bowel cancer
- Assessing new screening tests to help speed up the diagnoses for patients experiencing bowel cancer symptoms
- Looking at health economics and resources of managing bowel cancer along with ways to improve care for patients

Thank You for supporting bowel cancer research at Flinders.



Joining forces to tackle prostate cancer

Angie (centre), her daughter Alyce and granddaughter Orla are supporters of Associate Professor Luke Selth's prostate cancer research.

A Flinders prostate cancer researcher, and the family and friends of a man who fought the disease have joined forces to raise funds to combat the cancer by lacing up in this year's Lumary City-Bay Fun Run.

Angie Dimmock and her late husband Dean, who was treated at Flinders for prostate cancer and lymphoma before passing away in 2023, have both been passionate fundraisers for Flinders Foundation for many years, supporting prostate cancer research carried out by Associate Professor Luke Selth and his team.

And whilst Dean, a past City-Bay participant himself, will be sadly missing from the starting line this year, Angie and her team of family and friends are 'Doing it for Dean', and taking part to continue Dean's fundraising legacy. Running alongside them will be A/Prof Selth.



Dean and Angie

Dean's passion for finding the answer won't stop because he's gone... I suppose if anything, his memory keeps the hope firing.
Angie Dimmock

Angie, her daughter Alyce and granddaughter Orla (pictured) recently caught up with A/Prof Selth and his team, touring their lab in the Flinders Centre for Innovation in Cancer to see the research in action and hear about how their fundraising has helped make a difference.

This includes funding a specialised incubator, which replicates the environment in the human body to grow cancer cells and tissue.

"This is a critical piece of equipment for our group that we use every day," A/Prof Selth says.

Together the prostate cancer research team is tackling the disease from multiple angles, including developing new therapies with fewer side effects; exploring how to make prostate tumours more sensitive to immunotherapy; and looking at how prostate cancer becomes resistant to current frontline hormone therapy treatments.

"One thing that Dean told me very early on was about the side-effects of his treatment, some of which are really horrible...this conversation was crucial in prioritising our research that aims to develop not only more effective therapies, but therapies that are associated with better quality of life," A/Prof Selth says.

"The relationships you build with patients and their loved ones is such a key part of research, but it's often overlooked. I'm very grateful that I've developed this relationship with Angie, Dean and their family."



“I want to help get better medicine to help people with cancer.”
Ollie Hodges

Ollie Hodges recently visited the Flinders Centre for Innovation in Cancer for a sneak peek at some of the cancer research underway.

Doing it for Dad

Young Ollie Hodges lost his dad Ryan to cancer three years ago.

But with the wonderful support of friends, family and a generous community, the fund established in Ryan’s name continues to make an incredible difference by supporting research into personalised and targeted cancer therapies.

With fundraising activities held throughout the year, including a signature golf day in November, The Ryan Hodges Fund works in partnership with Flinders Foundation to continue Ryan’s mission of supporting ‘precision dosing’ cancer research.

Ryan himself benefitted from this research following a lung cancer diagnosis, giving him seven more years – precious time to see Ollie born, start school, and create memories together with wife Helen.

Traditional cancer treatments, while effective, can take a toll on healthy cells alongside cancerous ones, leading to nasty side effects.

But precision dosing hits differently, targeting only cancer cells and leaving healthy ones untouched. It also tailors the treatment to each individual’s unique body, ensuring the right dose for maximum impact.

Ollie is proud to be continuing his dad’s fundraising legacy, rolling up his sleeves on many occasions, including running in the City-Bay and holding lemonade stalls in his front yard with the help of his mates.



Dr Ramin Hassankhani (left) and Eugene Tan (right) pictured with Helen Hodges.

In exciting news, funds raised by the Ryan Hodges Fund have recently helped appoint two new research Fellows, Dr Ramin Hassankhani and Eugene Tan, to help expand the Precision Dosing Program, offering more targeted treatments to more patients, and importantly, hope and time to people with advanced cancer just like Ryan.



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