




# NEURONEWS

## FUNDING LIFESAVING NEUROSURGICAL RESEARCH

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### GLIOBLASTOMA RESEARCH



Dr Briony Gliddon, Prof Stuart Pitson, Dr Melinda Tea

The Centre for Cancer Biology, (an alliance between the University of South Australia and SA Pathology) **has been awarded \$816,930 of National Health and Medical Research Council (NHMRC) funding for glioblastoma research.**

The Molecular Signalling Laboratory at the Centre for Cancer Biology was awarded the NHMRC grant in December 2020 to continue their world-leading glioblastoma research. Glioblastoma is a fatal brain cancer which has not had any major breakthroughs in the past 30 years.

The NHMRC grant is a large extension of the work previously funded by the NRF in 2019 for

\$30,000. The key investigators on that research were Briony Gliddon, Melissa Pitman, Melinda Tea and Stuart Pitson and the research was titled: 'Permeabilising the blood-brain barrier to anti-neoplastic drugs for brain tumour therapy'.


Professor Stuart Pitson, who is also the NRF Chair of Brain Tumour Research said, "Our grant is one of the 283 funded. Only the top 9.8% of applications were funded, so we are very pleased with this outcome so that we can continue with our vital glioblastoma research."


The Chief Investigators on this research are Stuart Pitson, Briony Gliddon and Melinda


Tea and the grant title is "New approaches for glioblastoma therapy". The funding is for a period of 3 years.

"The blood-brain barrier is a major impediment to the treatment of brain tumours because it prevents most anti-cancer drugs from entering the brain, and brain tumour, from the bloodstream.


"This funding examines new approaches to open the blood-brain barrier to allow the use of existing highly potent anti-cancer drugs as brain cancer therapies. Successful outcomes of this work could lead to substantial improvements in the outcomes for brain tumour patients," Prof Pitson said.


**HOW YOU CAN HELP MAKE A DIFFERENCE:** 


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Set up an online fundraiser via Facebook or Go Fundraise [www.facebook.com/fund/NRFTeamNeuro](https://www.facebook.com/fund/NRFTeamNeuro)  
<https://nrf.gofundraise.com.au>

**Purchase a Play For Purpose raffle ticket** 

**Attend the TAR Dinning Memorial Neurosurgical Scholarship launch on April 18** 

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# ABBIE SIMPSON CLINICAL FELLOWSHIP



Ms Kaukas and Dr Adam Wells

The Abbie Simpson Clinical Fellowship is named after the original donor, Mrs Audrey Abbie (nee Simpson). Prof Donald Simpson, the co-founder of the NRF, is well known to all friends of the NRF. He was a highly regarded neurosurgeon in Adelaide who contributed to many areas of neurosurgery and research. Prof Andrew Abbie is less well known. He held the Elder Chair in Anatomy at the University of Adelaide from 1944 to 1970. His main interest was anthropology but was well-known to many generations of Adelaide medical students as a neuro-anatomist. After the death of his first wife he married Audrey Simpson, the sister of Donald Simpson. Consequently Profs Abbie and Simpson became brothers-in-law. The Fellowship perpetuates the memory of these two remarkable families.

Dr Adam Wells is the Abbie Simpson Clinical Fellow, a position jointly funded by the NRF and the University of Adelaide (UofA) for a period of three years (2020-2022).

His vision is to establish a Clinical Neurosurgical Research Facility. His plans include developing a trauma bank that would result in better outcomes for patients, with several specific research projects proposed under the UofA and Royal Adelaide Hospital's (RAH) Neurosurgical Research Laboratory, the hope is to establish a South Australian Neurosurgery Register. This will be ground-breaking, enabling retrospective and prospective

analysis of clinical interventions in neurosurgery.

Dr Wells is focusing his research on traumatic brain injury, stroke and brain tumours. "If we can capture the physiological data and the outcomes and then match them with the pathological data (blood samples), then in the next 10, 20 or 30 years, we will have a world-class storage facility of tissue samples matched up to the physiology," he said.

Ms Lola Kaukas has recently taken up the position as research assistant, working on the fellowship research, and is working with Dr Wells.

“IF WE CAN CAPTURE THE PHYSIOLOGICAL DATA AND THE OUTCOMES AND THEN MATCH THEM WITH THE PATHOLOGICAL DATA (BLOOD SAMPLES), THEN IN THE NEXT 10, 20 OR 30 YEARS, WE WILL HAVE A WORLD-CLASS STORAGE FACILITY OF TISSUE SAMPLES.”

Ms Kaukas commenced her neuroscientific research in 2018 when she completed her honours project investigating oedema development and morphological changes in a pre-clinical model of spinal cord injury at the UofA.

"This project evidently sparked an interest in research as upon completion of honours, I immediately began working within the Translational Neuropathology Laboratory (TNL). My work within TNL incorporated a wide array of projects, however my particular focus was on traumatic brain injury, a topic I have always found interesting.

"Throughout my time within TNL, my passion for neuroscience and research continued to grow, so when I was given the opportunity to work with Adam on a range of clinical projects, I jumped onboard.

"With a longstanding fascination in medicine and clinical research, this position represented the perfect opportunity to continue to work in neuroscientific research, a field I am passionate about, whilst gaining

experience in a new, exciting setting. This role offers the chance to extend my career in a new direction and I'm looking forward to translating my existing skills and knowledge to the clinical setting," she said.

Ms Kaukas is now based at the RAH, where she is planning upcoming projects, working on ongoing trials, and reading up on neurosurgical research being conducted around the world.

"I will be involved in some exciting clinical trials and research projects aimed at improving neurosurgery and neurosurgical research for both the patient and the medical professionals.

"In line with Adam's hopes for the fellowship, my work within the RAH's Neurosurgical Research Laboratory will assist in projects and endeavours that will lift the profile of South Australian neurosurgical research."

She said that a large focus will be the development of the trauma bank.



"This register will compile patient, physiological and pathological data (including tissue samples) to provide a streamlined, easy to digest bank of information for ongoing and future neurosurgical research. In achieving this, we hope to gain a greater understanding of neurotrauma, in turn opening the door to ongoing management and intervention development to improve outcomes for our patients," she said.

## VIRTUAL CITY TO BAY 2020

Participants taking part from home raised over \$15,000

Thank you to all our participants and fundraisers.

START TRAINING FOR 2021  
DIARY DATE: SUNDAY 19<sup>TH</sup> SEPT



## PATIENT STORY



Bethwyn is a walking and talking history of neurosurgery. She has survived six aneurysms and has undergone a range of different surgical processes which have evolved since 1967 until now.

In 1967 Bethwyn had her first aneurysm operated on by Doctor T.A. R. Dinning. He treated her by “tying off” the left Carotid Artery at a point halfway up her neck. A full recovery followed, and she went on to marry and in due course have two children (by natural birth).

Twenty years later she suffered another aneurysm, again on the left Carotid Artery in the brain. Whilst undergoing open craniotomy surgery to “clip” the new aneurysm, it was found that another (fourth) aneurysm had developed and burst. Both were “clipped” successfully and a full recovery eventuated.

Then in 2019 another two aneurysms were discovered (adjacent to those “clipped” previously). This time treatment was by way of a new technique of endovascular repair

using a “stent”, similar to that used in coronary arteries. This procedure involved using a special catheter inserted through the groin into the carotid artery and placing the stent into the exact area of the aneurysm thereby occluding the two aneurysms, but leaving the carotid artery still flowing normally.

Bethwyn is grateful for her full life which she says is thanks to her neurosurgeons, endovascular surgeons, medical development and faith.

Aneurysms can strike anyone at any time and in fact occur spontaneously at a rate of about 1 in 10,000 people. They are more common in adults and most brain aneurysms have no symptoms. If rupture occurs, only approximately half of the patients survive. Successful early neurosurgery within the first 72 hours produces good results.

**To read Bethwyn’s incredible story in full, please visit our website: [www.nrf.com.au](http://www.nrf.com.au)**



## UPCOMING EVENTS FOR THE NRF



### TAR DINNING MEMORIAL SCHOLARSHIP HIGH TEA

**Sunday 18<sup>th</sup> April at 1-4 pm at Ayers House, North Tce**  
More info online: [www.nrf.com.au](http://www.nrf.com.au)

### WISH YOU WERE HERE BOX



The NRF has an exciting new charity partner – the Wish You Were Here Box! This online care package website was created in response to the recent lockdown events of 2020 and the challenges people faced. \$2 from every care package purchased will go to the NRF for world-leading research.

View the packages online:  
[www.wishyouwereherebox.com](http://www.wishyouwereherebox.com)

### PLAY FOR PURPOSE CHARITY RAFFLE - DRAW 10



Raffle tickets are just \$10, with a guaranteed minimum of \$5 directly supporting the NRF. The rest helps fund prizes and the running of the raffle. Play For Purpose is Australia’s 100% not-for-profit community raffle. It’s the ultimate WIN-WIN raffle with every ticket also giving you the chance to win a first prize valued at \$250,000 and other amazing prizes.

Play For Purpose Draw 10 closes at 8:00pm AEST on 11 March 2021, and will be drawn at approximately 10:30am AEST on 12 March 2021. **Visit [www.nrf.com.au](http://www.nrf.com.au) to purchase tickets.**