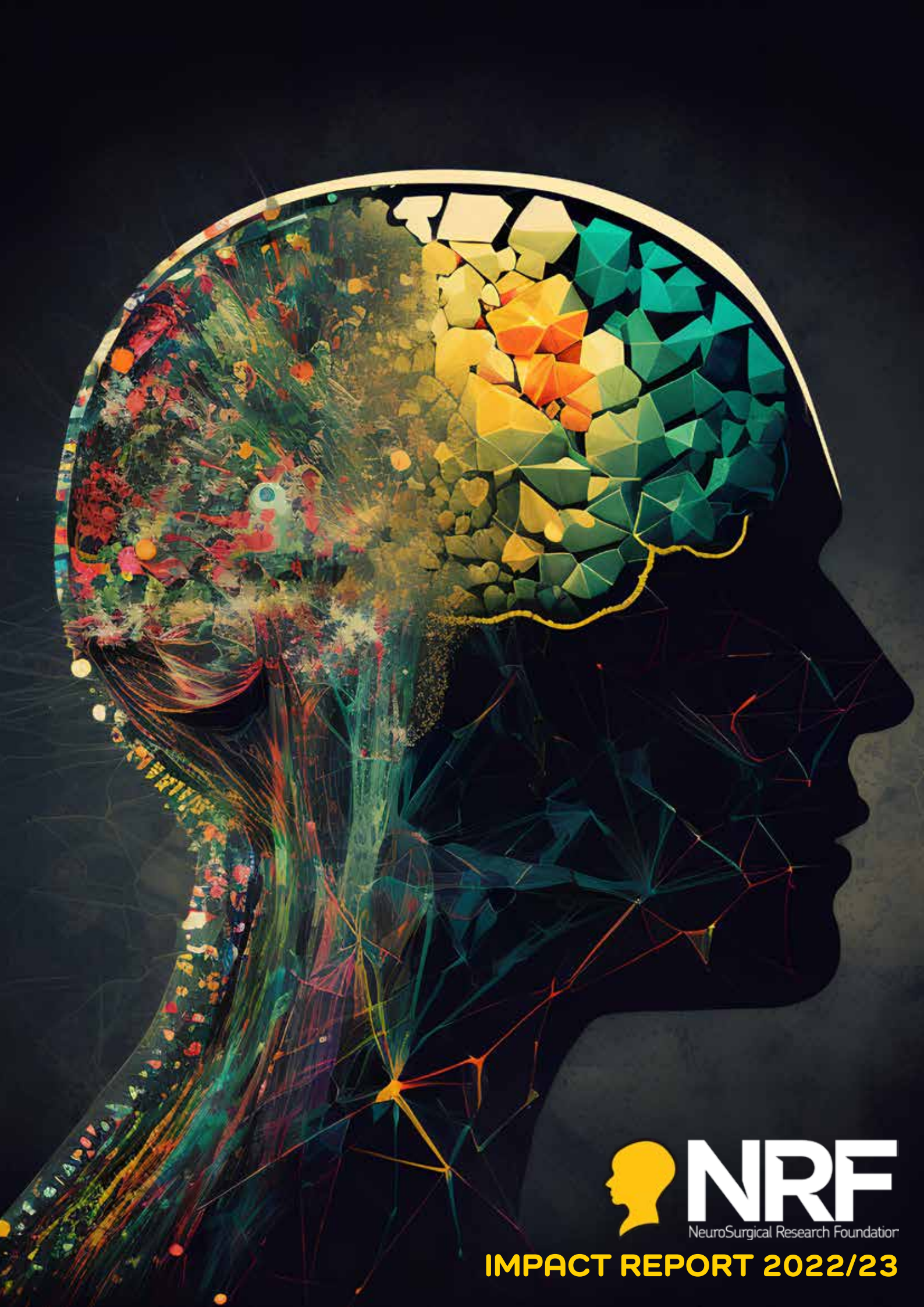

NRF

NeuroSurgical Research Foundation

IMPACT REPORT 2022/23

NEUROSURGICAL RESEARCH FOUNDATION

Thank you for supporting the NeuroSurgical Research Foundation. 100% of your generous donations go to vital research into disease and conditions of the brain and spine.

The NeuroSurgical Research Foundation was formed in 1963 and was the first of its kind in Australia. The objective of the Foundation is directed to funding research into the cause, diagnosis, prevention and treatment of disease, injuries or malfunction of the brain, spine and nerves. Our founders ensured that the Foundation supports all administrative costs, to make sure 100% of all donations go towards research.

Our researchers share a common goal, to improve the lives of people facing a neurosurgical or neurological disease diagnosis, now and in the future.

We fund research into the following diseases and conditions:

- Brain Tumours & Brain Cancer
- Paediatric Neurosurgical Research
- Neurotrauma:
  - Spinal Cord Injury
  - Traumatic Brain Injury
  - Concussion
- Neurodegeneration:
  - Parkinson's Disease
- Vascular Disease:
  - Stroke
  - Ruptured Aneurysms

There are many ways you can help to fund our research:

- Give today.
- Pledge over time - join us as a regular giver.
- Fundraise for us.
- Plan for the future - make a gift in your will.

Donations to the NeuroSurgical Research Foundation are tax deductible.

@NRFTeamNeuro @NeuroSurgR @neurosr_foundation

Thank you to our volunteer designer Jessica Anderson for producing this report.

The NeuroSurgical Research Foundation acknowledges the traditional Country of the Kaurna people of the Adelaide Plains and pays respect to Elders past and present

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BOARD MEMBERS 2022/23

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President - Chair Executive Committee

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Vice President

Mr Tim Neill
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Ms Ginta Orchard
Secretary Executive Officer

Mr Andrew Goodhand
Chair Investment Committee

Dr Santosh Poonnoose
Chair Scientific Committee

Prof Matthew McDonald
Scientific Committee

Ms Melanie Cooper AM

Ms Nadia Kingham

Mr Stephen White

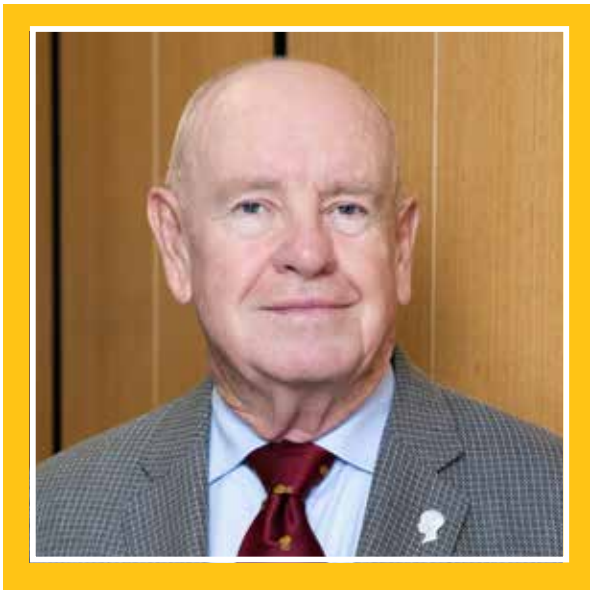
Dr Xenia Doorenbosch

Dr Simon Sandler

ADVISORY MEMBERS 2022/23

Assoc Prof Renée Turner	**NRF Director of Neurosurgical Research**
Prof Stuart Pitson	**NRF Chair of Brain Tumour Research**
Prof Peter Reilly AO	**Scientific Committee**
Assoc Prof Frances Corrigan	**Scientific Committee**
Prof Corinna van den Heuvel	**Scientific Committee**

PRESIDENT'S REPORT



It is with a tinge of sadness that I write my last annual report for the NRF. In September there will be a new president with new ideas to continue the work of raising funds for research into neurosurgical diseases. This year we have had donations and fundraising that have enabled us to fund $610,266 across 21 research grants, scholarships and fellowships.

We have also seen the first John Crowley Memorial Scholarship awarded. John was a final year nursing student at the RAH. He died after a motorcycle accident in 1986 at the age of 28. His parents, Dr Keith and Mrs Phyllis Crowley made a generous bequest in their will in memory of their son. After discussions with the family the NRF has established the trust to fund neurotrauma research with an emphasis on clinical research – it is anticipated that the award will run for the next 20 years. The first recipient was Abhiram Hiwase, a senior medical student at The University of Adelaide. His research will look at factors that are involved in the recurrence of blood clots on the brain, including abnormal blood clotting mechanisms.

In another first we have seen the first "Strong enough to live" PhD scholarship awarded in memory of Chris "Critter" Adams. The Adams family and friends of Chris have been stalwarts of support for us in raising funds for research into brain tumours. The inaugural recipient of the scholarship is Annaliese Thompson who will research CAR-T cell therapy in glioblastoma, working on improving CAR-T cell therapy options by generating and testing CAR-T cells that can target multiple parts of the tumour and recruit additional components of the immune system, to achieve lasting tumour control.

Another new initiative this year is the awarding of a 3-year commitment to assist in the establishment of South Australia's first paediatric brain tumour bank as a part of the proton beam therapy unit currently being built at the Australian Bragg Centre. Professor Jordan Hansford, an internationally renowned paediatric neuro-oncologist will lead the initiative which will support critical research and position Adelaide as a world leader in paediatric neuro-oncology research.

There are many people to thank not only for the successful activities of 2022/2023 but for the successes of the last decade – our staff, volunteers, donors, board members, researchers, fundraisers, event organisers, corporate sponsors, and most of all, our patients, and their families. We look forward to your ongoing support in 2023/2024 and beyond.

Dr Glenn McCulloch FRACS
NRF President

DIRECTOR OF NRF

NEUROSURGICAL RESEARCH REPORT

Students in the Translational Neuropathology Lab (Team Neuro) have been busy working on their projects in stroke, traumatic brain injury and spinal cord injury over the past 12 months. Here's a snapshot of the exciting projects they've been working on.

Stroke Research Program
Led by Assoc Prof Renée Turner

In our clinically-relevant stroke model, Honours students Rosie Costigan Dwyer and Samantha Joubert are using MRI to map the location and extent of brain tissue injury and loss that occurs long-term following stroke. They are pairing this with blood biomarker analyses to determine what markers of such delayed brain pathology following stroke can be detected in the blood, with implications for identifying patients at risk of this long-term stroke complication and inform treatment targets.

I recently co-chaired the 31st International Symposium for Cerebral Blood Flow and Metabolism - Brain & Brain PET 2023, bringing stroke scientists and clinicians from around the world to Brisbane to discuss the latest in pre-clinical stroke research and PET imaging. Supported by generous sponsorship from the NRF, our early career presented their findings at the conference:

Isabella Bilecki (PhD student) delivered a poster presentation, summarising her investigations on changes in the blood-brain barrier that occur following stroke in an older population. Her key findings demonstrate that leakiness of the blood-brain barrier and functional decline is exacerbated with advancing age at time of stroke. These findings potentially have implications for developing more tailored treatments for different sub-populations of stroke patients.

Shannon Stuckey (PhD student) delivered a poster presentation on the long-term (>1yr) consequences of stroke. Her main findings demonstrate that inflammation and loss of brain cells occurs at sites distant to the original stroke, and are associated with increased anxiety behaviours. These findings are important in understanding when may be the best time to intervene with treatment to prevent such delayed neurological decline and worsened outcomes following stroke.

Dr Rebecca Hood (Post-Doctoral Fellow) delivered an oral presentation summarising findings from a study investigating the protein profiles of blood clots retrieved from stroke patients in order to determine underlying stroke cause. Such protein signatures may have utility in determining whether a stroke event is related to heart pathology or hardening of the large arteries, and could be incorporated into a testing algorithm to determine whether patients should be prescribed anticoagulants or antiplatelets to prevent recurrent stroke.

The stroke research group have also established new collaborations with stroke neuroscientists and clinicial colleagues at The University of Melbourne, The Florey, South Australian Health and Medical Research Institute (SAHMRI). Together, these collaborations will explore the nature and extent of dysregulation of the gut-brain axis following stroke and how this impacts brain pathology and outcomes.

Team Neuro is grateful for the generous and ongoing support of the NRF donors, it enables us to keep doing what we love, ultimately striving towards improving outcomes for patients with stroke, traumatic brain injury and spinal cord injury. On behalf of the research leads and all of our students, thank you!

Associate Professor Renée Turner
NRF Director of NeuroSurgical Research

Head Injury Research Group

Led by Associate Professor Frances Corrigan

NRF support enabled us to develop a clinically relevant model of traumatic brain injury to investigate axonal injury evolution in adults and children. Axons facilitate neuronal communication. Following a head injury their function is disrupted, with damaging processes continuing chronically after the initial event. As children are still developing, the structure of these axons is different, which means that different treatments may be effective depending on age at which injury occurs. PhD student, Justin Krieg has presented this work at international (NNS, Austin Texas) and national conferences (National Neurotrauma Symposium, ANS) winning an oral presentation award. Ellie Todd (Honours) is extending this work by investigating the role of oligodendrocytes, the cells that provide axon support, may play in ongoing axonal disruption. NRF summer scholarship Sam Stewart assisted in this program as part of his research experience.

This head injury model is now being used to investigate a novel therapeutic, as part of a successful Cooperative Research Centres-Project Grant, led by Argenica. Carl Hooper has transitioned from Honours to the PhD program and will be leading this research program, with assistance from Honours student, Nina Swallow. Abhiram Hiwase has also joined the team, continuing his clinical work led by the RAH team including Dr Adam Wells and Dr Benjamin Reddi, investigating blood coagulation abnormalities following head injury.

Eleanor Bowley-Schubert (PhD student) is investigating dementia risk after head injuries. NRF summer scholarship recipient, Eliza Le Mire assisted in the work by looking at predictors of later neurodegeneration.

Spinal Cord Injury Research Program

Led by Dr Anna Leonard

The spinal cord injury research group (SCIRG) have continued to achieve some exciting research outcomes in 2022/23. Ms Christine Gayen is now just months away from submitting her thesis which has focused on establishing the first ever porcine model of SCI in Australia which will improve clinical translation moving forward – Congratulations Christine! Ms Kavi Sivasankar has been working on understanding how an injury to the spinal cord causes chronic cognitive dysfunction within the SCI population. She was awarded the NRF Best Presentation Award at the Australasian Neurotrauma Network meeting in December 2022 and recently presented this work at the National Neurotrauma Symposium in Austin, Texas. Mr Ryan Dorrian is continuing his exciting work on electrical stimulation to improve outcomes after SCI. This utilises an exciting new way of applying peripheral electrical stimulation which could revolutionise this field. He has been joined this year by Mr Jayden Christie who is developing an exciting new way of analysing spinal cord tissue in 3D. Ms Keziah Skein, with help of honours student Ms Rachel Hollyoak, is looking into how co-occurring TBI at the time of SCI could lead to worsened outcomes compared to a single neurotrauma and whether a unique biomarker may help to diagnose TBI when an SCI has occurred.

Excitingly, the team has secured a new way to measure functional outcome after injury with the support of the University of Adelaide Faculty of Health and Medical Sciences and the Neurosurgical Research Foundation, a CatWalk automatic gait analysis system. This will significantly improve our ability to detect improvements in motor function and can be used widely by the Neuro team (SCI, TBI & Stroke).

NEUROSURGICAL RESEARCH

UNIVERSITY OF ADELAIDE

STROKE RESEARCH

RESEARCHER: Dr Annabel Sorby-Adams

FUNDING: $35,195

TITLE: Disodium malonate for the treatment of post-stroke ischaemia reperfusion injury

PROJECT: Ischaemic stroke is a leading cause of death and disability worldwide. Arising due to cerebrovascular occlusion, current treatment involves removing the blockage to reestablish blood flow to compromised brain tissue, however, this often paradoxically worsens injury. Recently the mitochondrial metabolite succinate has been identified as a key driver in ischaemia reperfusion injury (I/R) post stroke, mediating its effects through binding succinate dehydrogenase (SDH). Malonate, a competitive inhibitor of SDH has the potential to prevent I/R injury post stroke and markedly improve patient outcomes. Following from a promising pilot study, this project seeks to comprehensively evaluate the efficacy of malonate for the treatment of post-stroke reperfusion injury in a clinically relevant model.

SPINAL CORD INJURY RESEARCH

RESEARCHER: Dr Anna Leonard

FUNDING: $50,000

TITLE: Does head injury at the time of sustaining a spinal cord injury result in the development of neuropathic pain?

PROJECT: Over 15,000 Australians currently live with permanent disability following spinal cord injury (SCI). Many perceive SCI to predominantly affect an individual's physical ability, however chronic pain develops in 75% of SCI survivors, significantly reducing quality of life. Although normal sensation is lost, the brain creates the perception of pain due to disrupted neuronal signaling. The underlying mechanisms are not well understood, and no efficacious treatments exist. Here we will investigate how a head injury, which occurs in 60% of SCI cases, facilitates development of chronic pain and evaluate the potential mechanisms at play to identify future therapeutic targets.

2022 Australasian Neurotrauma Workshop Sponsorship $5,000

The NRF was proud to sponsor the 2022 Australasian Neurotrauma Workshop, bringing together researchers from across Australia and New Zealand to network, present and discuss their latest research findings. This workshop focused on strengthening clinical connections to foster improved collaboration and research translation, as well as supporting and cultivating junior researchers.

The Australasian Neurotrauma Workshop was held on Saturday 3rd – Sunday 4th December.

The workshop focused on research in traumatic brain injury, spinal cord injury and stroke. Excitingly the event this year featured clinical research – bridging the gap and creating conversations between basic research and our clinical counterparts.

The Neurosurgical Research Foundation award for the Best Presentation by a South Australian Early Career Researcher was awarded to Ms Kavi Sivasankar who presented her PhD project "The effect of spinal cord injury severity on chronic cognitive dysfunction in a cervical hemi-contusion model".

NRF CHAIR OF BRAIN TUMOUR RESEARCH

PROF STUART PITSON

UNIVERSITY OF SOUTH AUSTRALIA & SA PATHOLOGY CENTRE FOR CANCER BIOLOGY

Prof Stuart Pitson: Molecular Therapeutics Laboratory, Centre for Cancer Biology

It has been another busy year for our brain tumour research in the Molecular Therapeutics Laboratory at the Centre for Cancer Biology. The advanced pre-clinical models of human glioblastoma we have developed have continued to allow us to help our collaborators in the translation of laboratory research into clinical trials for brain tumour patients. Indeed, we now have employed these models to help two new potential glioblastoma therapies to progress to clinical trials, which are currently on-going. We are also currently assessing several other new potential brain tumour therapies, which we hope will progress to clinical trials in the coming year.

I am pleased to report that our research recently received substantial funding ***($840,000) from the Federal Government via the National Health and Medical Research Council.*** This work, led by Drs Melinda Tea and Briony Gliddon, aims to develop improved immunotherapies for brain tumour treatment, and stemmed from vital seed funding from the NRF. This is a notable example of how NRF support with a $43,000 seed grant can be used to generate pilot data that can then attract substantial further funding to fast-track the research towards the clinic.

I also want to extend our sincere appreciation to those that have provided incredible support for our research through donations of ground-breaking research equipment. In the last year this included Fred and Marina Pascale, with whose support we were able to purchase a new $50,000 GelCount automated counting and analysis platform that allows for the rapid analysis of the effectiveness of new drugs to kill brain tumour cells. We were also fortunate to receive generous support from Brave for Dave, and Chloe Drogemuller-Fiebig that enabled the purchase of a rapid blood analyser that will vastly accelerate our brain tumour immunotherapy studies by allowing us to rapidly analyse the number of immune cells in blood samples. We were really pleased to host visits to the laboratory from Fred and Marina, along with their daughter Cecilia, and Chloe and her family to see this vital new equipment in action.

Over the summer I was pleased to host Kieran Benn, a medical student from the University of Melbourne, who undertook a research placement in our laboratory, supported by an NRF Research Vacation Scholarship. Kieran spent eight weeks in the laboratory learning about and conducting brain tumour research by examining new drugs we have discovered that can improve the potency of temozolomide in killing brain tumour cells.

Finally, I wanted to acknowledge two noteworthy events held in the last year in which I was involved. Last November Santosh Poonnoose and I chaired the 1st Brain Tumour Research SA symposium, which brought together a broad range of brain tumour researchers, clinicians, and other associated professionals across South Australia to discuss all the latest advances in brain tumour research, treatment, and patient care. The symposium was attended by around fifty participants and fostered greater interaction and collaboration across the state. The other event was a Grey May Brain Tumour Research Update, which I chaired this year. This event was open to the public and showcased the cutting-edge research that supporters of the NRF are helping progress, as well as information on patient support throughout the brain tumour journey.

Prof Stuart Pitson
NRF Chair of Brain Tumour Research
Centre for Cancer Biology - University of South Australia

BRAIN TUMOUR RESEARCH

UNIVERSITY OF SOUTH AUSTRALIA & CENTRE FOR CANCER BIOLOGY

RESEARCHER: Dr Briony Gliddon

FUNDING: $49,991

TITLE: Characterising the roles of the sphingosine kinases in brain tumour development

PROJECT: More effective therapies are desperately needed for glioblastoma. Accumulating evidence suggests that sphingosine-1-phosphate, a bioactive lipid mediator produced by sphingosine kinases (SphK1 and SphK2), plays a crucial role in the progression of glioblastomas. Whilst both SphK1 and SphK2 have been implicated in glioblastoma, the distinct function of each kinase in both the tumour and tumour microenvironment remains unclear. In this proposal, we will examine brain tumour growth in SphK1 and SphK2 deficient mouse models to investigate the specific roles each of the sphingosine kinases play in glioblastoma pathogenesis. Successful outcomes will provide new therapeutic targets for glioblastoma.

RESEARCHER: Dr Mel Tea

FUNDING: $49,992

TITLE: A new approach to enhance immunotherapy for brain tumours

PROJECT: Brain tumours are difficult to treat, have a high fatality rate, and a devastating impact on the quality of life of patients. Thus, new therapies for brain tumours are desperately needed. In the last few years, immunotherapies have offered great hope for brain tumour treatment. Unfortunately, this hope has not yet translated into better outcomes for patients due largely to brain tumour-induced systemic immunosuppression. This proposal aims to overcome this problem in order to improve the potency of brain tumour immunotherapies. Successful outcomes in this work have the potential to dramatically improve the survival outcomes for brain tumour patients.

BRAIN TUMOUR RESEARCH

UNIVERSITY OF SOUTH AUSTRALIA & CENTRE FOR CANCER BIOLOGY

RESEARCHER: Dr Nirmal Robinson

LOCATION: University of South Australia and SA Pathology – Centre for Cancer Biology

Cellular Stress and Immune Response Laboratory

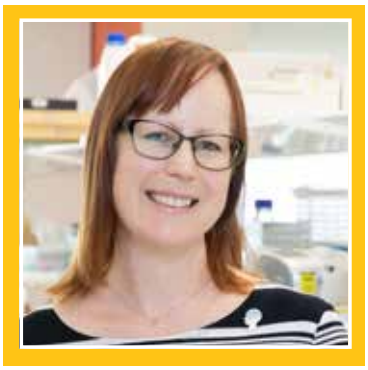
FUNDING: $49,780

TITLE: **Understanding and targeting "don't eat me signal" (CD47) in Glioblastoma**

PROJECT: Glioblastoma (GBM) is an aggressive type of brain cancer with a very low median survival (11-15 months). GBM cells adapt to grow in a low oxygen (hypoxia) environment and overexpress 'don't eat me' signal CD47 to evade from immune cells. These mechanisms render GBM cells resistant to therapies. Hypoxia perturbs metabolism and protein synthesis which is destructive to normal cells. However, GBM cells overcome metabolic and ER-stress to survive and grow. We hypothesise that the 'don't eat me' signal CD47 helps GBM cells to adapt and regulates cellular mechanisms that help GBMs to proliferate and migrate. Therefore, we propose to understand the CD47 driven mechanisms that facilitate the growth of GBMs and pharmacologically target CD47 as a therapeutic intervention to treat GBM.

BRAIN TUMOUR RESEARCH

CENTRAL ADELAIDE LOCAL HEALTH NETWORK



RESEARCHER: Assoc Prof Lisa Ebert

LOCATION: Central Adelaide Local Health Network

FUNDING: $50,000

TITLE: **Initiating a new immunotherapy trial for glioblastoma patients in Adelaide.**

PROJECT: Glioblastoma is the deadliest form of brain cancer, with limited treatment options. We are developing a new treatment for glioblastoma, based on a revolutionary type of 'living drug' known as CAR-T cells. In this approach, T cells are isolated from a patient's blood and genetically engineered to give them cancer-killing activity. These cells are returned to the patient's bloodstream; they then travel to the tumour to attack it from within. We recently received regulatory approval to test this therapy in brain cancer patients. Here, we seek funding to support the treatment of the first 6 glioblastoma patients in this clinical trial.

NRF PAEDIATRIC RESEARCH

CENTRAL ADELAIDE LOCAL HEALTH NETWORK

RESEARCHER: Prof Michael Brown

FUNDING: $35,000

TITLE: Ways to make immunotherapy for brain cancer more effective.

PROJECT: Diffuse insintric pontine glioma (DIPG) is the most common, aggressive and lethal of childhood brain cancers. The infiltrative and invasive nature of DIPG in the brain's 'junction box' limits the effectiveness of potential treatments. Genetically engineering a patient's own white blood cells against DIPG to make chimeric antigen receptor (CAR)-T cells is emerging as a promising new therapy. However, CAR-T cell therapy is not effective in all DIPG patients. Soft outer cell membranes, which enable cancer cells to slither and invade in the brain, also prevent their killing by CAR-T cells, but can now potentially be stiffened by new drugs.
SAHMRI and the Bragg Centre for Proton Therapy and Research.

NRF PAEDIATRIC RESEARCH

SA HEALTH & MEDICAL RESEARCH INSTITUTE

RESEARCHER: Prof Jordan Hansford

FUNDING: $35,000

TITLE: South Australian Paediatric Brain Cancer Biobank.

PROJECT: We wish to develop key facilities to expand paediatric brain cancer research in South Australia. To do this it is essential to establish a comprehensive, well annotated and run paediatric brain cancer biobank that will foster high quality discovery and clinical research. It is particularly important to have this paediatric brain cancer biobanking capacity established in South Australia as we move toward proton therapy for children with brain tumours at SAHMRI and the Bragg Centre for Proton Therapy and Research. We are seeking support to establish this important initiative.

NRF pledged 3 years funding totalling $150,000 2023 – 2025

BRAIN TUMOUR RESEARCH
FLINDERS UNIVERSITY

RESEARCHER: Dr Sunita Ramesh

FUNDING: $31,000

TITLE: New drugs to stop brain tumour invasion.

PROJECT: Developing novel therapeutic candidates for limiting invasive capabilities of Glioblastoma multiforme cells.
Glioblastoma Multiforme is an aggressive brain cancer with poor prognosis and survival. Tumours recur after treatment as cells develop resistance to chemotherapy, proliferate and aggressively invade resected and healthy brain tissues. Current research focuses on increasing sensitivity to chemotherapeutic drugs but not on limiting invasive capabilities of these cells. No pharmacological agents that target cell motility mechanisms are used currently as tools for limiting GBM invasiveness during eradication treatments. This project focuses on characterizing pharmacological compounds identified from a comprehensive screen of natural compounds sourced from Davis Open Access Compound library that effectively inhibit invasion of glioblastoma cells.

EQUIPMENT GRANTS
WOMEN'S & CHILDRENS HOSPITAL

RESEARCHERS: Dr Xenia Doorenbosch - Neurosurgeon
Dr Alistair Jukes - Neurosurgeon
Dr Gareth Rutter - Registrar (not pictured)

GRANT VALUE: $29,475

EQUPMENT: Braun Paediscope.

PROJECT: A small diameter and lightweight neuroendoscope designed for intraventricular procedures in neonates. Flexible Instruments and monopolar electrodes for the Paediscope.
The Braun Paediscope is used for intraventricular procedures in neurosurgery. It is particularly applicable for neonatal procedures due to its small size and lightweight design. The only neuroendoscope currently available at the Women's and Children's Hospital is much larger in diameter. In comparison, the Paediscope has a shaft diameter of 3mm whilst the current MINOP scope is 6mm. The Paediscope will provide a better safety margin for the procedure and enable greater mobility within the small neonatal ventricles. The Paediscope will additionally be useable in other neonatal and infant surgical procedures, for example septostomies, third ventriculararostomies and choroid plexus coagulation. These could be performed in much younger children than currently possible, which has been shown to reduce the rates of ventriculo-peritoneal shunting and the associated complications. In addition, if it is demonstrated to improve outcome in the study population, the Paediscope will become the firstline instrument in the treatment of these patients.
The Paediscope will allow close collaboration with Neonatal Intensive Care for the improved management of intraventricular haemorrhage of prematurity.

BRAIN TUMOUR RESEARCH SA
SYMPOSIUM

Brain Tumour Research SA (BTRSA) held their first ever Symposium, bringing together the brain tumour research and clinical community to discuss the latest research and clinical advances in the area. It was wonderful to see such engaging and collaborative discussion between the best and brightest in the SA brain tumour research space.

The Symposium featured a distinguished array of speakers who took the time to prepare a fantastic set of talks that really showcased the breadth of research and clinical work that BTRSA members are undertaking.

A big thank you as well to sponsors Integra LifeSciences and IMEDCARE, without whom the event would not have been possible.

Some of the participants that attended the 1st Brain Tumour Research SA Symposium held in the Bradley Building of the University of South Australia on Sunday 27 November 2022. The Symposium was co-Chaired by Prof Stuart Pitson and A/Prof Santosh Poonnoose.

Front row: Dr Annika Mascarenhas, Prof Stuart Pitson, A/Prof Santosh Poonnoose, Dr Xenia Doorenbosch, Dr Wenbo Yu, Prof Jordan Hansford

Second Row: Ms Kaitlin Scheer, Dr Ema Knight, Ms Inushi De Silva, Ms Sakthi Lenin, Ms Amanda Luck, A/Prof Lisa Ebert, Dr Esther Quick, Minyu Wang

Back Row: Mr Conor Ryan, A/Prof Cedric Bardy, Angus Graham, Ms Helen Palethorpe, Dr Guillermo Gomez, Mr David Sadauskas, Dr Brett Stringer, Dr Rebecca Ormsby, Prof Michael Brown, Mr Eunwoo Nam, A/Prof Quenten Schwarz

ABBIE SIMPSON CLINICAL FELLOW

DR ADAM WELLS Neurosurgeon

Clinical Neurosurgical research has continued strongly at the Royal Adelaide Hospital (RAH) over the past 12 months. We have welcomed back medical student Mr Abhiram Hiwase, 2022 University of Adelaide Honours of Health and Medical Sciences Dux. This year Abhiram commenced his PhD supervised by Dr Frances Corrigan, A/Prof Renee Turner (Translational Neuropathology Laboratory, University of Adelaide), A/Prof Benjamin Reddi (Intensive Care Unit. RAH) and myself (Department of Neurosurgery, RAH). For his PhD Abhiram is continuing his traumatic brain injury (TBI) research, examining the diagnosis and management of coagulopathy in TBI. This year we also welcomed international medical student Miss Daniela Domingeuz from the International University of Ecuador for a 6 week research placement. Daniela immersed herself in both the clinical and research facets of our department, developing her skills in Neurosurgical research. Daniela had a fantastic time in Adelaide and we hope more international students will explore our city for future research opportunities.

In the past year we have continued recruitment for our observational clinical study, ROTEM-TBI, recruiting over 90 patients to date. ROTEM testing provides critical information about the rapidity and quality of blood clots in patients for which bleeding can be a matter of life or death. These details are particularly significant in head injury, potentially presenting novel treatment targets for this population. Preliminary results demonstrate an advantage for ROTEM testing in addition to standard testing methods in patients with TBI. We also found that ROTEM results strongly predict the likelihood of a lethal head injury. This research has been made possible through funding from the NRF and the Harvey Foundation, allowing recruitment to continue into 2024. Moving forward, we aim to pair ROTEM with other coagulation tests to examine the relationship between clot breakdown and severity and progression of intracranial bleeding, potentially employing advanced Artificial Intelligence radiological modelling.

Recently we have recruited our first patient into our new project, Pre-operative ROTEM in Elective Chronic Subdural Haematoma Evacuation. Chronic Subdural Haematomas (CSDH) are an extremely common Neurosurgical condition in which aged blood products can pool on the surface of the brain inside the skull, typically requiring drainage to correct. CSDH prevalence is on the rise in association with our ageing population, with rates of surgical evacuation of CSDH also anticipated to rise in the coming years. Up to one third of patients who undergo CSDH surgical evacuation will need repeat surgery due to recurrent bleeding. Our study aims to assess ROTEM testing in elderly CSDH patients to determine if undetected coagulopathy is contributing to the development and/or recurrence of CSDH. This study is graciously supported with vital funding from the NRF for ROTEM testing, without which we could not perform this research project.

Finally, we are continuing recruitment for the international BONANZA multi-centre randomised clinical trial in which the outcomes of patients with severe TBI managed with standard intracranial pressure driven therapy are compared with patients managed with ICP and brain tissue oxygen measurements. Oxygen is critical to normal brain function and low oxygen levels are associated with worse outcomes following TBI; several Neurotrauma centres around the world use longstanding brain tissue oxygenation methods as standard care, but the evidence regarding whether it is beneficial or not is still lacking. Together with researchers at Monash University we continue to recruit patients to this exciting study to answer this extremely important question.

Dr Adam Wells
Neurosurgeon, Royal Adelaide Hospital

ABBIE SIMPSON CLINICAL FELLOW

DR NICK CANDY

Neurosurgical Accredited Registrar and Ph.D in Surgery Student

Under the supervision of Professor Alkis Psaltis, Professor Peter-John Wormald, and Associate Professor Alistair Jukes, I have been investigating mechanisms to improve endocrine outcomes in patients undergoing endoscopic endonasal approaches (EEA) to resect pituitary neuroendocrine tumours (PitNET), formerly termed pituitary adenomas.

Traditionally, this is a difficult cohort of patients to study due to the variety of ways endocrine outcomes can be reported. The pituitary gland can be considered the hormone centre for the brain. It precisely controls the hormones created by various organs such as the adrenal glands, thyroid, and gonads. PitNETs can either cause reduced secretion of these hormones or, less commonly, excessive secretion of one or more hormones. These are labelled non-functional and functional tumours, respectively. With regards to the endocrine function, a goal of surgery for non-functional tumours is to preserve or restore the patient's pituitary gland function. Whereas, for functional tumours the goal of surgery is to completely remove the tumour that is over-secreting hormones to try and cure the patient.

Preliminary research has shown that increasing surgical experience appears to improve the endocrine outcome for patients undergoing pituitary surgery. However, it takes many hundreds of cases to achieve these outcomes, and there appears to be no plateau at the top of the learning curve. The first part of this research will involve defining the scope of the problem by examining in detail the endocrine outcomes for all patients who underwent an EEA for resection of a PitNET in South Australia between 2006 and 2021.

Ideally, surgeons in training will have a variety of technological or training methods to push themselves further along the learning curve, so they can achieve surgical excellence after fewer cases.

The second part of this research involves a variety of projects looking at ways of either shortening the learning curve for pituitary surgery or identifying technology that can be used to improve endocrine outcomes. Firstly, a project will investigate a new MRI sequence to determine if it demonstrates superior accuracy when trying to identify important surgical landmarks during endoscopic pituitary surgery. Secondly, a project will look at validating a newly developed 3D printed endoscopic pituitary surgery model that enables simulation of pituitary adenoma resection, repair of a CSF leak, and control of a major vascular injury. Finally, a project will look at identifying the different membrane proteins that exist between the pituitary gland and PitNETs with the goal of developing a fluorophore to guide surgical resection.

On a different topic, I have also established and currently run the Trial of Chitogel/Deferiprone patch to reduce postoperative epidural fibrosis in patients undergoing lumbar spinal surgery. This Phase 0 trial is examining a new gel that will be applied to patients at the end of a lumbar spine operation to reduce the rate of postoperative epidural fibrosis, a condition thought to contribute significantly to failed back surgery syndrome. This trial is currently recruiting patients and will hopefully roll into a Phase II randomized controlled trial.

Dr Nick Candy
Neurosurgical Accredited Registrar and Ph.D in Surgery Student

RESEARCH GRANTS AND SCHOLARSHIPS

CHRIS ADAMS & RICHARD BUTTERY

Chris Adams - Strong Enough To Live

Chris Adams sadly lost his battle with a grade 3 anaplastic astrocytoma brain tumour in November 2015. Chris' family is now dedicated to honouring his memory and spirit through the NRF and the 'Strong Enough to Live' campaign which supports vital research to find a cure for brain cancer.

STRONG ENOUGH TO LIVE RESEARCH PHD SCHOLARSHIP

Annaliese Thompson was awarded the inaugural Strong Enough to Live Research PhD Scholarship, which will support her PhD research working on improving CAR-T cell therapy options by generating and testing CAR-T cells that can target multiple parts of the tumour and recruit additional components of the immune system, to achieve lasting tumour control.

CHRIS ADAMS RESEARCH GRANT

The annual Chris Adams Research Grant provides $5,000 to an early career researcher in the area of brain tumour and brain cancer. Dr Chloe Shard was awarded the 2022 Chris Adams Research Grant to support her research to identify the metabolic fuel sources that support glioblastoma tumour growth and its resistance to therapy in order to identify new therapies to improve brain cancer patient survival and quality of life. The $5000 research grant will enable her to attend the world-class Metabolomics Analysis Training Course at EMBL-EBI in the UK to acquire skills and expertise in this rapidly developing field not currently available in SA, and present her research at the SNO Annual Scientific Meeting in Vancouver, the top conference in brain cancer research worldwide.

RICHARD BUTTERY NRF GLIOBLASTOMA RESEARCH VACATION SCHOLARSHIP

When Richard Buttery sadly passed away from brain cancer, his wife Kerry Buttery started fundraising as a way of remembering him, honouring his memory, and to make a difference for those people who will also receive a brain tumour diagnosis in the future. The Richard Buttery NRF Glioblastoma Research Vacation Scholarship helps foster the next generation of brain tumour researchers. UniSA Clinical and Health Sciences student Kevin He was awarded the Scholarship, undertaking an 8-week placement within the Translational Oncology Lab at the Centre for Cancer Biology (CCB), to gain experience working on a project to determine if selected cytokines and epigenetic drugs can enhance the tumour destroying potential of T cells.

Pictured L-R Kerry Buttery, Cherrie Adams, Marty Adams, Ishika Mahajan, Annaliese Thompson, Dr Chloe Shard, Prof Stuart Pitson, Kevin He, Kieran Benn, A/Prof Lisa Ebert, Prof Michael Brown, Dr Guillermo Gomez

NRF VACATION SCHOLARSHIPS

UNIVERSITY OF SOUTH AUSTRALIA
UNIVERSITY OF ADELAIDE

Thanks to our generous donors the NRF was able to award multiple 2023 NRF Vacation Scholarships to support the next generation of researchers to gain experience through a summer holiday placement.

UNIVERSITY OF SOUTH AUSTRALIA

Ishika Mahajan - Identifying tumour cell-microenvironment interactions in infiltrating tumour regions that can serve as targets for glioblastoma therapies.

Kieran Benn - Molecular characterisation of glioblastoma.

UNIVERSITY OF ADELAIDE

Translational Neuropathology Laboratory

Eliza Le Mire - Investigating pituitary dysfunction after traumatic brain injury

Samuel Stewart - Investigating neurotransmitter dysfunction as a possible link between TBI and later neurodegeneration

Michelle Kruszewski - Investigating the effects of peripheral nerve stimulation with a novel graft antennae to reduce neuroinflammation following spinal cord injury

Australian Institute for Machine Learning

Biao Wu - Automated quantification of brain haemorrhage volume on CT head imaging

L-R A/Prof Francis Corrigan, Eliza Le Mire, Samuel Stewart, Michelle Kruszewski, Dr Anna Leonard

Biao Wu and Ginta Orchard

SCHOLARSHIPS AND GRANTS

DINNING & JOHN CROWLEY MEMORIAL SCHOLARSHIPS

DINNING MEMORIAL NEUROSURGICAL SCHOLARSHIP DR CHRIS TSIMIKLIS

Dr Chris Tsimiklis (pictured centre) was the inaugural recipient of the NRF Dinning Memorial Neurosurgical Scholarship

Dr Trevor Dinning was a pioneering SA Neurosurgeon and his vision for neurosurgical research led to him co-founding the NRF in 1963. His daughters Nadia Kingham (pictured left) and Anthea Dinning (right) have created a lasting legacy in his honour, to assist neurosurgeons to advance their skills in a particular area.

Dr Tsimiklis is utilising this scholarship to undertake specialist training in minimally invasive endoscopic spinal surgery, which offers benefits such as reduced pain and quicker recovery times for eligible patients. This type of surgery is widely utilised overseas but still in its infancy in Australia. As well as upskilling through technical courses and conferences, Dr Tsimiklis is collaborating with other surgeons interested in this field, and plans to train future surgeons thereby enabling more patients to be able to access this service in SA.

A huge thank you to Nadia and Anthea for their generosity, and the kind contributions of our NRF community that made this Scholarship possible.

JOHN CROWLEY MEMORIAL SCHOLARSHIP ABHIRAM HIWASE

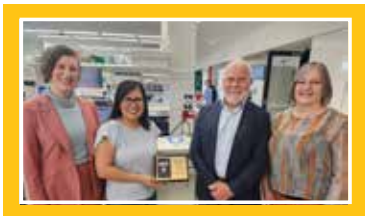
Medical student Abhiram Hiwase was the inaugural recipient of the John Crowley Memorial Scholarship. This scholarship was established as a result of a generous bequest from the family of John Crowley, who was a nursing student at the Royal Adelaide Hospital and died on 17 March 1986, aged 27 years, from a head injury sustained in a motorcycle accident. The aim of the scholarship is to fund neurotrauma research with an emphasis on clinical research.

Mr Hiwase (pictured receiving his award from Rachel Crowley) is utilising the scholarship to continue his exciting PhD research into traumatic brain injury (TBI) treatment , examining the diagnosis and management of blood coagulation following TBI.

Part of this research involves evaluating if an alternative coagulation blood test, rotational thromboelastometry (ROTEM), can improve management and patient outcomes in the setting of both acute TBI, and a subacute form of head injury known as chronic subdural haematoma (cSDH). Within the next decade, cSDH is expected to be one of the most frequently encountered neurosurgical conditions with recurrence occurring in up to one third of patients leading to worse neurological outcomes. These projects are being run as clinical trials at the Royal Adelaide Hospital with the aim to better understand the pathophysiology of coagulation in acute TBI and cSDH and optimise treatment pathways for these patients.

EQUIPMENT DONATIONS

PASCALE FAMILY & BRAVE FOR DAVE



L-R Names Cecilia Pascale, Mel Tea, Fred and Marina Pascale

GELCOUNT AUTOMATED COUNTING AND ANALYSIS PLATFORM

We are extremely grateful to the Pascale family for their generous donation, which is streamlining brain cancer research in SA to help researchers discover better treatments.

Fred, Marina and their daughter Cecilia have a long-standing relationship with the NRF after Cecilia was diagnosed with an oligodendroma in 2014. Operated on successfully, Cecilia experienced a recurrence in 2020 found to be a grade 3 anaplastic astrocytoma and is now living with her diagnosis post-treatment.

Thanks to Fred and Marina Pascale, the Centre for Cancer Biology is now home to the only GelCount automated counting and analysis platform in South Australia. This new equipment allows researchers to assess the effectiveness of new cancer therapies by measuring how they impact the cancer cell's ability to grow. Automating what was previously an extremely time-consuming manual process, this machine significantly reduces the time required to screen new drugs, meaning that it will both accelerate existing research projects and permit screening of additional new brain tumour therapies that would not previously have been feasible.

L-R Brooke Penney, Gaylee Drogemuller, Duke Fiebig, Chloe Drogemuller Fiebig, Benjamin Drogemuller

BRAVE FOR DAVE - VETSCAN HM5 HAEMATOLOGY ANALYSER

The NRF would like to thank Chloe Drogemuller-Fiebig and Brave for Dave for their generous donation, which is supporting researchers to discover better brain tumour immunotherapies in SA.

Brave for Dave was created by Chloe Drogemuller-Fiebig in honour of her husband Dave, who passed away from Stage IV Glioblastoma in July 2022.

Thanks to the Brave for Dave Community, the Centre for Cancer Biology is now home to a new blood analyser, which analyses the number of immune cells in blood samples. This new equipment is increasing research capacity by only requiring small volume samples, providing more comprehensive results than previously available and in under 3 minutes, a process that previously took 4 hours.

EXECUTIVE OFFICER'S REPORT

GINTA ORCHARD FFIA

Executive Officer Ginta Orchard celebrates 20 years with the NRF

I come from an Event Management background. Having grown up in Adelaide I studied a Bachelor of Applied Science in Recreation Management, then worked in events in Melbourne and London before heading back to Adelaide in 1996. It was an honour to have been interviewed and appointed by past President Prof Donald Simpson, who co-founded the NRF in 1963. I knew immediately that this was the job for me.

My first task was to organise the NRF 40th Celebration. I worked with amazing volunteers Di Floreani, Valda Jones and Casandra Hewett who are still volunteers and donors today. Over 250 people gathered for the first of many such celebrations.

I was thrilled to run and host 5 Coopers Open Days at Coopers initially with Bill Cooper, and then Melanie Cooper from 2003 to 2011. Bill also arranged for the NRF to be one of 4 SA charities involved with the reopening of the new Adelaide Airport 2005.

Another great relationship to celebrate is having worked with volunteer Graphic Designer Jessica Anderson since 2007 on all the NRF Annual Report designs, as well as imaging for many other events such as the Todd to Torrens and NRF 50th Anniversary celebration. Jessica is still a valuable team member today.

It was a privilege to work with Grant Stevens on the Ride Like Crazy events. After Senior Sergeant Mick "Crazy" Koerner of the South Australia Police was diagnosed with an inoperable brain tumour in 2008, his work colleagues and friends set out to organise a "small" event to raise money to fight cancer. Over 600 riders participated that first year, and it became an annual event attracting over 12,000 riders since 2010 and raising over $1.5 million for cancer research.

It is an honour to have worked with Patrons Carolyn Hewson and Catherine Branson who were both not only amazing leaders and mentors, but also avid fundraisers walking the City to Bay a few times each. I myself have walked and run and fundraised with NRF Team Neuro in the City to Bay which has raised over $300,000 in 10 years.

Another highlight was working on the rebranding to NRF in 2011, as NeuroSurgical Research Foundation is a mouthful to say and sell.

One of my roles is to work with families at one of the hardest times of their lives, losing a loved one. It is an honour to be part of such an end of life experience with the family, working together to take this tragic event and create a meaningful memorial to honour the memory of their loved one. This is how the Chris Adams Scholarship and the Richard Buttery Vacation Scholarship came to be.

I can't leave out my own challenging year with my battle with breast cancer in 2017. I thank the research every day that has ensured I am still here today. That is what drives me the most, I want to be part of finding improved treatments and potential cures to save lives.

I cannot name and thank all the amazing volunteers, donors, researchers and neurosurgeons I have worked with over the years. However, I have been honoured to work with you all and I look forward to another 5 years together working with this amazing team at the NRF, we can make a difference.

Ginta Orchard
NRF Executive Officer

LIFE MEMBERS & HONOUR BOARD

NRF LIFE MEMBERS

Helli Campbell
Richard Campbell
Francis X Donlan
Richard Fewster
Derek Frewin AO
Carolyn Hewson AO
Robert Neill
Brian North AO
Robert Searcy
Mel Zerner

FRIENDS OF THE FOUNDATION - PLATINUM ($500,000+)

James & Diana Ramsay Foundation
SA Police - Ride Like Crazy

FRIENDS OF THE FOUNDATION - GOLD ($100,000+)

June Bowman
Coopers Brewery Foundation
Dr Jones & Partners
Anthea Dinning & Nadia Kingham
Harvey Foundation
Jody Koerner
Judy Rischbieth
Strong Enough to Live
Wilkins Family Foundation

MAJOR BENEFACTORS - SILVER ($50,000+)

Barbara Kelley & Family

MAJOR BENEFACTORS - BRONZE ($25,000+)

Fred Caruso
Jo Cooper
CMV Foundation
Francis X Donlan
Letcombe Foundation
Brian & Sue North
Patrick of Coonawarra
Antony & Mary Louise Simpson
Richard Turner
Nick & Anna Vrodos
Rosemary Waterman

BENEFACTORS ($10,000+)

Adelaide Brain Tumour Support (ABTS)
Adult Brain Cancer Support Association (ABCSA)
Australian Executor Trustees
Calvary Adelaide
Coopers Brewery
Simon Fahey
Harris Foundation
David Hemmy
Beth Lewis
Medtronic
NuVasive
Frank & Margaret O'Neill
Pete's Army
Picnic for Carmel
Santosh Poonnoose
Radiology SA
Running for Richard
SANTOS
Sarah Constructions
Shimmi for Immi
Walk for Phil
William Buck
Mel Zerner

BENEFACTORS ($5,000+)

Margaret Dingle
Casandra Hewett
Ginta Orchard
Marina Pascale
Pete ❤ Pete
Richard & Susan Simpson

AMBASSADORS

Cherrie Adams
Jessica Anderson
Charles Brice
Kerry Buttery
Alicia Critchley
Pam Downward
Chloe Drogemuller-Fiebig
Casey Kay Fitzhardy
Di Floreani
Chelsea Dawn Fuller
Tyler Fuller
Lucinda Gregory
Gross & Family
Casandra Hewett
Barbara Kelley
Bethwyn Levi
Toni McArthur
Cecilia Pasquale
Allison, Ryan & Lili Pearson
Rose Perkins
Patrick Renner
Matt Rowett
Simon Schwerdt
Lauren Spear
Rosel Stokes
Natalia Thompson
Allys Todd
Ella Vaccaro
Tarnya van Driel
Kristen Wilkins & Family
Dean Williams
Terrence Youell

NEUROCONNECT SA
GALA DINNER

Jones Radiology

On Saturday 20th August 2022 over 200 guests turned out in their finest to celebrate and support the SA neurosurgical research community. The evening was a huge success raising over $30,000 for life-saving neurosurgical research!

It was an inspiring evening hosted by our fantastic MC and brain tumour survivor Allys Todd, with special guest speaker ABC News Breakfast Reporter Charles Brice sharing his spinal cord injury story. There was a touch of magic in the air thanks to roaming magician Scott Stunz, and our resident DJ had everyone up and dancing by the end of the night.

A big thank you to our wonderful event sponsors Jones Radiology, all of our generous prize donors, Sidewood Estate for providing delicious drops for our wine wall and Threefold Distilling for serving up delectable bespoke gin cocktails and tastings for our guests.

We would be remiss if we did not thank our incredible volunteers who work so hard behind the scenes to make our events run smoothly, and of course everyone who attended and made the night a huge success.







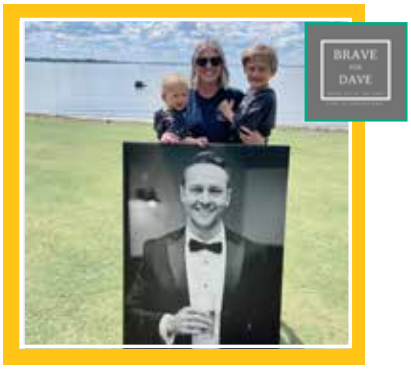


COMMUNITY FUNDRAISING

THANK YOU TO OUR FUNDRAISERS
$95,585 RAISED

Cherrie Adams
SETL Art Auction

Cherrie Adams
Calendar Sales



Chloe Drogemuller Fiebig
B for D - Brave for Dave

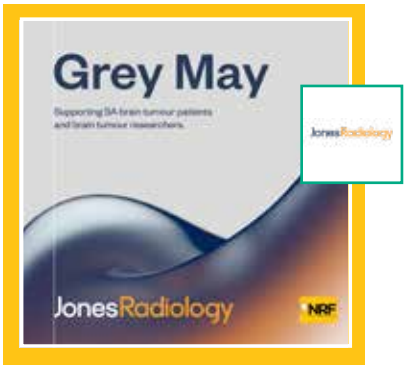
Kerry Buttery - Running for Richard
Movie - The Duke

Elle Schembri
Gold Coast Surf Run

Tyler Fuller
The Big Gig

Kellie Matalone
Walk for Phil

Terence Youell
Quiz Night



Jones Radiology
Grey May Fundraiser

Radiology SA
Grey May Fundraiser

Rose Family
Dry July Challenge

Thank you

Thank you to all these additional fundraisers throughout the year:

Mark Fitzgerald - Canberra Marathon

Michael Sheehan - The Gardens Residents Committee

Martin Murgolo- Martin gets A Buzz

Sandra Tran - Sydney Running Festival

Jachson Tobin SETL - Gold Coast Surf Run

Kristy Pearce, Elite Training

FUNDRAISING

SUPPORTING THE NRF

The objective of the foundation is directed towards funding research into the cause, diagnosis, prevention and treatment of disease or malfunction of the brain, spine and nerves and it is through the generosity of our supporters that we are able to continue this life saving work.

DONATIONS AND REGULAR MONTHLY PAYMENTS

The NRF relies on your generosity to continue to support vital neurological and neurosurgical research and to be able to donate equipment for both research and treatment.

Regular monthly donations are a great way to spread your giving throughout the year, and an annual statement summarising your donations will be delivered to you.

One-off donations and regular monthly donations can be made either online, at www.nrf.com.au, by clicking the "Donate Now" button, scan the QR code on this page or by completing the enclosed form.

GIFTS IN WILLS

Looking for a way to make your final wishes really count? Consider leaving a gift in your Will to the NeuroSurgical Research Foundation. To leave a gift in your Will to the Foundation, contact your solicitor, who will advise you of the required documentation. The correct full name to be listed in your will should read NeuroSurgical Research Foundation.

Thank you to the following for leaving a gift in their Will to the NeuroSurgical Research Foudation:

Wendy Joan Bidgood
Phyllis Joan Crowley
Beth England Lewis

IN MEMORIAM DONATIONS

In memoriam gifts are donations that may be made in lieu of sending flowers, or in memory of a loved friend, relative, or colleague. They are a positive and thoughtful way to honour the memory of a loved one. Family members are notified of all donors, and gifts are receipted and acknowledged promptly.

The NRF wishes to acknowledge the following In Memoriam donations received from families and friends in memory of their loved ones:

Chris Adams
Doreen Fatchen
Gary Heath
Kennett
Edward Miles
Moule
Christine Simmons
Glenn Thomas
Steve Young
Susan Bignell
Maria Osanna Fingolo
Ryan Hodges
Theodoros (Theo) Kolovos
Stephen James McLeod "Maca"
Gregory Mutze
Graeme Sorby-Adams
Marjorie Thornton
Richard Buttery
Leanne Robyn Gluyas
Dorothy Jenkinson
Lachlan Cameron Mackenzie
Annette Moretti
Hannah Philbey
Pheobe Smith
Anthony Walsh (Tony)
Marisa Corsini
Jonathon Jon Hale
Neil Graham
Phil Matalone
Kim Morris Carol
Rick Schembri
Mark Brenton Standley
Betty Wright

IN CELEBRATION & FACEBOOK FUNDRAISERS

Next time you're celebrating a birthday, anniversary, engagement, or special event, why not ask friends and family to skip presents and donate to lifesaving research instead.

The NRF wishes to acknowledge the following In Celebration donations received this year –via our website and Facebook Fundraisers.

Cherrie Adams
Alyssa De Cristofaro
Catherine Evans
Jessica Kate
Ragan Newton
Ruby Weismantel
Shianne Birch
Gennaro De Luca
Lucy Fry
Andrew J Laurie
Kellie Phillips
Stacey Wilderspin
Cristina Bruno
Daniel Dellamalva
Cassie Ellen Hipkiss
Janice Louise Murray
Michelle Tomic
Anthony Corrigan
Jess Dumont-Williams
Kristy Imbrogno
Ian Musgrave
Tarnya Van Driel

SCAN ME

SCAN WITH YOUR PHONE CAMERA AND MAKE YOUR DONATION TO THE NRF TODAY!

FUNDRAISING

NRF TEAM NEURO RAISE OVER $32,500 CITY TO BAY 2022

This year the physical City to Bay returned after a 2 year hiatus due to Covid and no amount of cold, wind or rain could dampen the incredible atmosphere! Altogether 51 individuals and teams joined NRF Team Neuro, many to remember loved ones lost to diseases such as brain cancer, childhood brain swelling, and traumatic brain injury.

It was inspiring to see so many come together, braving the cold and rain to make a difference for neurosurgical research and raise an incredible $32,500! Our very first NRF Team Neuro racer and brain tumour researcher Dr Guilermo Gomez completed the half marathon (21.1km) in an impressive 1:31:51. With the DIY race option available again this year we had racers join us from all around Australia, and even as far as Paris.

Thank you to everyone who walked, ran and fundraised – without you we could not fund life-saving neurosurgical research.

BBQ Team

Allison Pearson

Nadia Kingham & Christine Walsh

Joshua Hillman

Tom Willis

Dr Guillermo Gomez

Prof Corinna van den Heuvel

Team Jones Radiology

Jake Nowicki & Lewis

FUNDRAISING
SUPPORTING THE NRF

The NeuroSurgical Rsearch Foundation Incorporated. For the Year Ended 31st March 2023.

The NeuroSurgical Research Foundation Inc Statement of Comprehensive Income	NOTE	2023 $	2022 $
INCOME - RESEARCH FUND			
Donations and Fundraising		1,563,606	776,784
Investment Income		9,343	11,288
TOTAL INCOME		**1,572,950**	**788,072**
LESS EXPENSES			
Research Grant Expenditure	4	401,898	1,054,988
SURPLUS (DEFICIT) RESEARCH FUND		**1,171,052**	**(266,916)**
INCOME – SCHOLARSHIPS FUND			
Donations and fundraising		200	20,097
Investment Income		795	(5,645)
TOTAL INCOME		**995**	**14,452**
Less expenses scholarship awards		**(15,000)**	**-**
SURPLUS (DEFICIT) SCHOLARSHIP FUND		**(14,005)**	**14,452**
INCOME – OPERATIONS FUND			
Investment Income		(125,280)	325,000
Membership		665	645
TOTAL INCOME		**(124,615)**	**325,645**
LESS EXPENSES			
Administrative Expenses		251,843	223,252
SURPLUS (DEFICIT) OPERATIONS FUND		**(376,458)**	**102,393**
TOTAL COMPREHENSIVE INCOME		**780,589**	**(150,071)**

NOTES

Note 4

NRF Chair of NeuroSurgical Research – Neurodegeneration	10,750	86,248
NRF Chair of NeuroSurgical Research – Stroke	35,195	43,000
NRF Chair of NeuroSurgical Research – SCI / TBI	80,465	242,741
Paediatric research	29,475	43,000
University SA - Brain Tumour Research	216,033	180,609
Flinders University - Brain Tumour Research	31,000	193,491
Royal Adelaide Hospital – Stroke	---	25,000
Royal Adelaide Hospital – Brain Tumour Research	50,000	43,000
Royal Adelaide Hospital – TBI	---	20,000
Royal Adelaide Hospital - Equipment	---	105,448
Unallocated research grants	(51,020)	72,451
	401,898	**1,054,988**

Note 5 UN-ALLOCATED RESEARCH GRANTS PAYABLE

Opening balance	300,233	227,782
Current year expense Unallocated research grants	(51,020)	72,451
Closing balance	**249,213**	**300,233**

Statement of Financial Position	Note	2023 $	2022 $
CURRENT ASSETS			
Cash and cash equivalents		658,648	88,427
Inventories		500	500
Receivables		5,224	---
Prepayments and accrued income		4,444	14,749
TOTAL CURRENT ASSETS		**668,816**	**103,676**
NON-CURRENT ASSETS			
Office Equipment and Computer Software		1,256	1,786
Managed Investment Portfolio		5,101,493	5,254,048
Investments		338,378	---
TOTAL NON-CURRENT ASSETS		**5,441,128**	**5,255,834**
TOTAL ASSETS		**6,109,943**	**5,359,510**
CURRENT LIABILITIES			
Payables		1,129	2,186
Un-allocated research grants payable	5	249,213	300,233
Income in advance		---	2,837
Accrued expenses		24,703	3,737
Provisions		29,726	7,239
TOTAL CURRENT LIABILITIES		**304,771**	**316,232**
NON-CURRENT LIABILITIES			
Provisions		---	18,695
TOTAL NON-CURRENT LIABILITIES		**---**	**18,695**
TOTAL LIABILITIES		**304,771**	**334,927**
NET ASSETS		**5,805,172**	**5,024,583**
TOTAL ACCUMULATED FUNDS		**5,805,172**	**5,024,583**

STATEMENT OF CHANGES IN ACCUMULATED FUNDS

Year ended 31 March 2023	**Research Fund**	**Scholarship Fund**	**Operations Fund**	**Total**
Accumulated funds at beginning of year	634,667	195,758	4,194,158	5,024,583
Total comprehensive income	1,171,052	(14,005)	(376,458)	780,589
Accumulated funds at end of year	**1,805,719**	**181,753**	**3,817,700**	**5,805,172**

Year ended 31 March 2022	**Research Fund**	**Scholarship Fund**	**Operations Fund**	**Total**
Accumulated funds at beginning of year	601,583	136,204	4,436,867	5,174,654
Total comprehensive income	(266,916)	14,452	102,393	(150,071)
Transfer to Research Fund	300,000	---	(300,000)	---
Transfer to Scholarship Fund	---	45,102	(45,102)	---
Accumulated funds at end of year	**634,667**	**195,758**	**4,194,158**	**5,024,583**

William Buck

This financial report has been prepared in order to satisfy the financial reporting requirements of the Associations Incorporation Act 1985 (SA) and the Australian Charities and Not-for-profits Commission Act 2012. These pages are extracts from the Audited Financial Statement. If you require a full set of the Financial Statement, please contact Ginta Orchard - Hon Secretary by either phone (08) 8371 0771 or email ginta.orchard@nrf.com.au.

Thank you to William Buck for pro-bono audit services.

NRF
NeuroSurgical Research Foundation

NeuroSurgical Research Foundation
Executive Officer: Ginta Orchard
PO Box 698, North Adelaide SA 5006
Phone: (08) 8371 0771
Mobile: 0419 844 511
Email: info@nrf.com.au
Website & Online Donations: www.nrf.com.au

The NeuroSurgical Research Foundation acknowledges the traditional Country of the Kaurna people of the Adelaide Plains and pays respect to Elders past and present.

SCAN ME

SCAN WITH YOUR PHONE CAMERA AND MAKE YOUR DONATION TO THE NRF TODAY!