



# NRF

NeuroSurgical Research Foundation



**ANNUAL REPORT 2014/2015**

## Mission Statement

- To promote, foster, develop and assist the study of all matters related to neurosurgery
- To encourage, stimulate and aid research and investigation into such matters and to stimulate public interest in neurosurgery
- To cooperate with other organisations in neurosurgical work and research
- To encourage post graduate medical study in neurosurgery
- To assist the NRF Chair of Neurosurgery
- To raise funds for the above purposes

## Board Members 2014-15

Dr Brian North AO  
Mr Mel Zerner  
Ms Ginta Orchard  
Dr Glenn McCulloch  
Mr Francis Donlan  
Prof Robert Vink NRF

Ms Melanie Cooper  
Mr Lindsay Hick  
Ms Nadia Kingham  
Mr James Litt  
Dr Mathew McDonald  
Dr Nick Vrodos  
Mr Stephen White

President - Chair Executive Committee  
Hon. Treasurer  
Secretary - Executive Officer  
Vice President  
Chair Investment Committee  
Chair of Neurosurgical Research

## From our Patron

In last year's Annual Report the President, Dr Brian North AO, wrote of the 'Changing of the guard' at the NeuroSurgical Research Foundation. This year further change in the leadership of the NRF has been foreshadowed with Brian himself announcing that he will retire as President at the Annual General Meeting to be held in August 2015.

Brian has given 11 years of tireless service to the NRF as its President. Major achievements under his leadership have included:

- the establishment of the Paediatric Research Appeal which will shortly result in the donation of \$1 million to the University of Adelaide for paediatric neurosurgical research;
- the establishment of the Neurosurgical Trainee Fellowship scheme from which four trainees have already benefitted with another fellow due to commence training next year
- the NRF being named as a funding recipient of the Ride Like Crazy program resulting in \$480,000 being directed to brain tumour research.

Brian's leadership of the Foundation's work will be sorely missed. We extend to him our grateful thanks.

Additionally, Mr Jon Gregerson left the NRF Board this year after becoming Chairperson of The Wyatt Trust. Jon was a highly valued Board member of the Foundation for 20 years. His legal skills as well as his wisdom and experience more generally will be sadly missed. We thank Mr Stephen White, a partner of the legal firm O'Loughlins, for agreeing to replace Jon as a Board member.

Grateful thanks are also due to Ms Ginta Orchard, the Foundation's hard working and dedicated Executive Officer. Among her many contributions she has led our involvement in the community events, such as the City to Bay (which I so much enjoyed walking) and Lightsview Ride Like Crazy, which are so important to our fundraising efforts; continued to build our loyal membership and worked with and supported our wonderful volunteers.

I am delighted that the NRF has over the past year continued its impressive record of supporting research in the critically important area of neurosurgery. Future years, I am confident, will see that record continued and enhanced.



Catherine Branson



**Catherine Branson, NRF Patron with Board Members James Litt and Robert Vink.**

Let's do all we can to support the wonderful work of the NRF. Improved treatment and perhaps even a cure for Parkinson's disease might one day be an outcome!



# Life Members Ambassadors Friends

## NRF LIFE MEMBERS

Helli Campbell  
Richard Fewster  
Robert Neill

Richard Campbell  
Prof. Derek Frewin AO  
Robert Searcy

Bill Cooper OAM  
Carolyn Hewson AO  
Prof. Donald Simpson AO

## AMBASSADORS

Amelia Bennetts  
Callan, Liam, Andrew & Lisa Costello  
Erica Davis & Family  
Corey Fordam  
Tom Gross & Family  
Barbara Kelley  
Sheryn Miles  
Ryan Mугan  
Taylah Niewdach  
Allison, Ryan & Lili Pearson  
Shanice Sri  
Cadel Trenerry  
Wendy Trow

Andrew Bottrall  
Alicia Critchley  
Tonia Doody  
Di Floreani  
Joshua Halls  
Bethwyn Levi  
Mary Mines  
Sian Murphy  
Melissa O'Brien  
Tyler Rutka-Hudson  
Natalia Thompson & Family  
Olivia Trimboli  
Dean Williams

Henrietta Byrne  
Anna Curyer  
Ann Fox  
Alex & Chloe Gilchrist-Byrne  
Steven Jolly  
Toni McArthur  
Harry Moyle  
Bronwen Murphy  
Missy Pascoe  
Melissa Gillian Sparrow  
Allys Todd  
Kristen Wilkins & Family

## FRIENDS OF THE FOUNDATION

June Bowman  
Judy Rischbieth

Muriel Gunn Research Trust Fund  
James & Diana Ramsay Foundation

Jody Koerner  
South Australian Police

## MAJOR BENEFACTORS

Bill & Jo Cooper  
Brian & Sue North  
Rosemary Waterman

David Gunn  
Richard Turner

Barbara Kelley & Family  
Nick & Anna Vrodos

## BENEFACTORS

Simon Fahey  
Quota International of Broken Hill

David Hemmy

Beth Lewis

## MAJOR CORPORATE BENEFACTORS

Australian Executor Trustees  
Harris Foundation  
Radiology SA

Coopers Brewery  
Harvey Foundation  
SANTOS

Dr Jones & Partners  
Medtronic  
Sarah Constructions

## CORPORATE BENEFACTORS

Aussie Farmers Direct  
Macquarie Private Wealth

CMV Foundation  
NuVasive

Letcombe Foundation  
Patrick of Coonawarra



### ***My Story, Brain Tumour Survivor - Mary***

Mary was 93 and was volunteering and helping others for nearly 70 years. She had minor symptoms of high blood pressure and pins and needles in her neck and left hand when she was diagnosed with a meningioma. A meningioma is a tumour in the membranes surrounding the brain (the meninges).

Mary's tumour was very slow growing and doctors think she may have had it for nearly 30 years. Fortunately Mary's tumour was grade one, meaning it was benign. The tumour was removed in a minimally invasive operation lasting only three hours and, after a short stay in rehab, Mary was up and about and able to go home. Mary, her children and grandchildren, are very grateful that the whole tumour could be removed.

## President's Report

I am pleased to report that the NRF has completed its most successful year in our 52-year history, both in fund raising and research support. After initiating the appointment of Australia's first Professor of Neurosurgical Research in 1992 with a donation of \$1.8 million and support of clinical research with an additional \$1 million (The Abbie Simpson Fund), the NRF brought together neurosurgeons, pathologists, engineers and basic scientists to address head injuries. This group is recognised as Australia's premier brain injury research team and is a world leader in head injury research. They have developed multiple national and overseas collaborations in pursuit of their research objectives.



With subsequent donations of \$4.3 million to the University of Adelaide, the areas of research have expanded to include brain tumours, concussion, stroke, spinal cord injury, Parkinson's disease, subarachnoid haemorrhage and Sudden Infant Death Syndrome.

The NRF also supports neurosurgical trainees to allow them to conduct full time research with the aim of producing future surgeon-scientists. Next year, this program will expand into skull base surgery under the supervision of the Professor of Ear Nose and Throat and Skull Base Surgery, PJ Wormald. The Abbie Simpson Fund will underwrite this new endeavour.

The NRF Board has resolved to support paediatric neurosurgical research by donating an additional \$1 million to the University of Adelaide to establish the NRF Paediatric Neurosurgical Research Fund. The presentation will take place on November 25 at the Wine Centre where the NRF will host a dinner. University Officials will attend along with surgeons, research scientists, corporate supporters, individual donors and supporters. This fund will promote paediatric neurosurgical research in South Australia by engaging local, interstate and international collaboration. Thank you to those who helped to establish this Fund.

Dr Trevor Dinning founded the NRF in 1963 with the support of his colleague, Professor Donald Simpson. At that time, Australia was backward in neurosurgery terms, particularly when it came to research activity. Their dreams are now a reality with the current research activity in Adelaide.

The Foundation's balance sheet remains strong and donations since the financial year ended on 31<sup>st</sup> March 2015 have further strengthened the Foundation. The NRF is approaching the stage where its investment portfolio will be able to assist with funding additional neurosurgical research and NRF operating expenses.

The NRF Board continues to provide strong leadership and I thank all Board Members. In particular, Jon Gregerson who provided legal support for many years and has recently stood down to enable him to assume leadership of the Wyatt Trust. We welcome Stephen White of O'Loughlins Lawyers as Jon's replacement. Don Donlan and Glenn McCulloch provide high quality advice and hands-on help; thank you. I thank Ginta Orchard for her enthusiasm, hard work, and guidance.

Finally, after 11 years as President and a Board Member for over 40 years, I do not intend to stand for re-election as President; however, I will remain on the Board and its Executive Committee. I intend to nominate Robert Vink, Professor of Neurosurgical Research and Pro Vice Chancellor of the University of South Australia and NRF Board Member for 11 years, as President. It has been a great honour for me to serve the Foundation as President for all these years and I have every confidence that Professor Vink will continue the mission and goals established in 1963 by Doctors Dinning and Simpson.

*Brian North*

Brian North  
President



# Chair Report



Photos this page top to bottom:  
Dr Tom Morris, Dr Diana Busingye,  
Joshua Barton.

Photos Opposite left to right:  
Prof Robert Vink, Dr Stephanie Plummer,  
Dr Stefan Court-Kowalski, Kelly McAteer,  
Vinthia Katharesan, Fiona Bright,  
Kimberly Mander.

**THE** 2014/15 year has been a year of transition for the neurosurgical research lab, marked by Dr Renée Turner assuming a leadership role in the laboratory, plus several new students beginning their research studies in the lab as others completed theirs.

Completing their studies were Joshua Burton, Tom Morris and Diana Busingye. Josh was awarded his PhD for his research into brain water channels, known as aquaporin channels. He showed that these channels act by letting water enter the brain during the first hours after trauma, resulting in profound brain swelling. However, they were also essential in letting the water out of the brain at later time points, thus resolving brain swelling. Understanding the function of these aquaporin channels is critical, especially given the current focus on developing pharmacological inhibitors of these channels. Dr Tom Morris was another one of our neurosurgical trainees who successfully completed his Masters degree examining the role of haptoglobin in subarachnoid haemorrhage. Subarachnoid haemorrhage is notoriously difficult to treat and Tom's characterisation of haptoglobin's role will be very useful in understanding the pathophysiology and in developing new and novel protective therapies. Finally, Dr Diana Busingye completed her Masters degree by examining ways of increasing magnesium delivery to the brain after traumatic brain injury (TBI), and capitalising on its potential to enhance recovery. She showed that by administering the magnesium in a polyethylene glycol vehicle, you can reduce the magnesium concentration that is administered to one tenth of that used in previous studies, thus avoiding cardiovascular side-effects, while still having a profoundly beneficial effect on outcome.

New students that have joined the lab are Thalia Al Ashkar, Holly Colton, Annabel Sorby-Adams and Jason Teng. All of these students are undertaking a variety of research projects for their honours degree, including characterising the roles of inflammation and blood brain barrier in cognitive outcome after TBI, and

characterising intracranial pressure and blood brain barrier function in stroke. Also joining us in the lab this year are Samantha Herzog and Josh Woenig who will be providing expert technical assistance to the research effort. The ability to employ technical assistance is critical to the team's success and has only been possible because of the National Health and Medical Research Council (NHMRC) success we have experienced in recent years. Indeed, Dr Renée Turner was successful in obtaining NHMRC funding for her stroke studies this year, making it three NHMRC successes in a row for the team. Given that the national success rate in NHMRC grants has fallen to its lowest level in history, the continued success of the lab in securing NHMRC funding speaks to the international quality of research that is being undertaken. Nonetheless, winning external research funding will become increasingly difficult under the current government research funding policy and it is times like these when the support of the Neurosurgical Research Foundation becomes critically important in maintaining the research momentum.

The research studies of our current PhD students Fiona Bright, Stefan Court-Kowalski, Vythia Katharesan, Kimberly Mander, Kelly McAteer and Stephanie Plummer are proceeding nicely, with all of their studies still on track for on time completions. You have heard regular updates from these students at previous AGMs and this year, Vythia, under the primary supervision of Dr Ian Johnson, will be giving an update on her studies of motor neurone disease. While most of the other students will also be in attendance, Fiona sends her apologies as she is still at Harvard University pursuing her studies in neurotransmitter control of Sudden Infant Death Syndrome (SIDS). We expect Fiona to return later this year, armed with several new techniques that can be adapted to our other studies. Also still overseas is Dr Anna Leonard who is pursuing spinal cord injury studies at the University of Alabama in collaboration with Dr Candace Floyd. We expect Anna to also return later in the year and introduce new models of research into our Adelaide laboratory.

Publications from the lab over the last 12 months have been in a number of international journals including PLoS One, Journal of Neurotrauma, Neuropeptides, Spine and British Journal of Pharmacology, amongst others. There have also been a number of presentations at both national and international conferences including the Brain15 Symposium in Vancouver, the Neurosurgical Society of Australasia, and the Adelaide Neurotrauma workshop, which we hosted. I was also fortunate to be named as the 2015 Eccles Lecturer, a prestigious award that will give me the opportunity to deliver the Eccles lecture at both the annual Australasian Neuroscience Society meeting (Cairns) as well as the annual Neurosurgical Society of Australasia meeting (Auckland). With only one Eccles lecturer each year over the past 20 years, the Adelaide Head Injury group has a marvelous track record in being awarded this honour, with both Prof. Peter Blumbergs AO and Prof. Peter Reilly AO being previous recipients.

We were delighted to be named as a 2016 funding recipient of the SAPOL "Lightsview Ride Like Crazy" challenge. The SAPOL sponsorship has been the impetus for our continued research efforts in brain cancer and with two PhD completions and two more on the way, the research program has been very successful. In addition to doing

world-class brain tumour research, our goal is to train more young scientists so that we broaden the base of research into this area. The more people doing brain cancer research, the higher the likelihood of a treatment breakthrough. We are indebted to the continued support from SAPOL and look forward to working together in the future to improve outcomes from brain cancer.

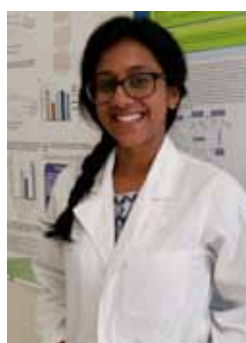
None of this would have been possible without your support as donors to the NRF. Without this support, we would be unable to attract and train some of the best students in neurosurgical and related research, who subsequently dedicate their future careers to that endeavour. We would be unable to pursue research into new, high-risk areas of neurosurgical discovery, the findings of which are used to approach external bodies for subsequent long-term funding. Again, thank you for your generous support of the NRF, and I hope you have been as excited by the scientific discoveries as I have been.

This will be my last report as the NRF Chair of Neurosurgical Research given that I am stepping down from the position after 10 years in the role. Over those 10 years, the lab was awarded NRF project and equipment funding (excluding student fellowships/scholarships) totalling approximately \$1 M and managed to leverage this to attract over \$6 M in additional

external project funding (excluding fellowships/scholarships), successfully train 15 PhD students (with 5 more in progress), 5 Masters students and 16 honours students to completion, and publish over 100 journal articles. As Team Neuro grew in size, so did our research interests, expanding from brain and spinal cord injury to include stroke, Parkinson's disease, subarachnoid haemorrhage, brain tumours, motor neurone disease, Sudden Infant Death Syndrome and chronic traumatic encephalopathy. I often refer to the last 10 years as a "golden age" for the lab. I say that because in my experience, it is rare to assemble such a fine group of researchers and students in the one place at the one time with sufficient resources and support to pursue a common research goal. That has been Team Neuro over the last 10 years. As I step back to focus on other professional challenges, I will nonetheless remain actively involved in the mission of the NRF and will take great pride in supporting the continued success of one of Australia's premiere neurosurgical research groups.



Professor Robert Vink  
Chair of Neurosurgical Research





## Funding of Research and Equipment

**\$991,480 for new research and equipment!**

**EQUIPMENT:** Neurosurgical Microscope

**DONATED TO:** Neurosurgical Department, Flinders Medical Centre

**DONATED BY:** David Gunn, through the Muriel Gunn Medical Research Trust Fund



This state-of-the-art microscope helps improve accuracy when removing a tumour and impacted tissue or nerves. It also has the capacity for on-table angiography, which highlights blood vessels during surgery. This makes them easier to preserve, helping to avoid stroke, which can be a risk factor for these types of procedures. FMC Director of Neurosurgery, Dr Nick Vrodos, says of the microscope: "Having equipment which allows us to identify and manage potential risks earlier helps us to provide the best possible care and will improve our patients' recovery."

*Photo: Dr Santosh Poonnoose, Dr Matthew McDonald, Mr David Gunn, Dr Brian North and Dr Nick Vrodos.*

**EQUIPMENT:** Bio-Plex MAGPIX Multiplex Reader and Automated Bio-Plex Pro Wash Station

**DONATED TO:** Neurological Diseases Research Team, University of Adelaide

**DONATED BY:** David Gunn, through the Muriel Gunn Medical Research Trust Fund



Associate Professor Corinna van den Heuvel and researcher Viythia Katharesan were delighted to receive this new MAGPIX system which enables researchers to detect and measure multiple proteins, peptides or nucleic acids (analytes) in a single volume of sample. The system provides a vital tool for research including brain tumour research, traumatic brain injury, stroke, spinal cord injury, Alzheimer's disease and motor neurone disease.

*Photo: David Gunn with Viythia Katharesan*

**RESEARCH:** Hyperspectral imaging as an analytical tool for Spinal Cord Injury

**RESEARCHERS:** Professor Brian J C Freeman, Head of Spinal Services, Royal Adelaide Hospital, Professor of Spinal Surgery, University of Adelaide, with Jillian Clark Ph.D. (Med), Postdoctoral Research Fellow



The project is the result of a collaboration between the University of Adelaide's Centre for Orthopaedics and Trauma Research and the Australian Research Centre for Advanced Nanoscale Biophotonics. The spinal cord has limited potential for spontaneous repair, and is unable to restore its topography after traumatic, or non-traumatic insult. A better mechanistic understanding of its cellular and molecular functions is necessary to advance our knowledge; a focus of our work is on infiltrating peripheral immune cells that signal inflammatory events in damaged neural tissue. We will characterise plasticity in the peripheral immune cellular network, and harness nanoscale level biomarkers to non-invasively predict and quantify the progression of spinal damage.



Funded by the NRF through generous donations!

Funding of Research and Equipment

**RESEARCH:** Pre-clinical Evaluation of New Stroke Treatments

**RESEARCHERS:** Dr Renée Turner Lecturer, Head Translational Stroke Group Adelaide Centre for Neuroscience Research and Neurosurgeon Dr Amal Abou-Hamden Royal Adelaide Hospital



Most strokes are caused by a blood clot lodging in an artery, blocking blood flow to the brain. The aim of treatment is to restore blood flow as soon as possible, minimising brain tissue death. A new preclinical model has been developed in the Neurological

Diseases Laboratory which seeks to replicate this situation, allowing close study of how tissue injury and death occurs during stroke and of events that occur within the brain as blood flow is restored. This model will be used to study how damage may be minimised, working towards improved treatment and better outcomes for stroke patients.

**RESEARCH:** Ability of Granulocyte Colony Stimulating Factor to Improve Long-Term Cognitive Consequences Following Traumatic Brain Injury

**RESEARCHER:** Lyndsey Collins-Praino, Lecturer, Discipline of Anatomy and Pathology, School of Medical Sciences



Traumatic brain injury (TBI) is the leading cause of disability and death worldwide and is associated with significant impairment in brain function, impacting cognitive, emotional, behavioural and physical functioning. TBI is also a significant risk factor for later development of dementia and Alzheimer's disease. This research uses an experimental model of TBI to investigate how markers of neuroinflammation and neurodegeneration are related to cognitive impairment up to one year post-injury. The model is also used to investigate whether treatment can reduce neurodegeneration and improve cognition. Understanding TBI is a critical first step in developing novel treatment strategies for long-term complications of TBI.

**RESEARCH:** Provision of Energy and Protein after Traumatic Brain Injury

**RESEARCHERS:** Lee-anne Costello (dietician and PhD candidate) and intensive care consultants Associate Professor Marianne Chapman and Associate Professor Adam Deane



Traumatic brain injury (TBI) is a common, complex condition with devastating long-term consequences. Recently nutrition has been identified as a key intervention. However, as a result of complications such as high metabolic rate and muscle wasting, malnutrition is common six months post-injury and likely to influence long-term functional recovery. In-hospital delivery of nutrition to patients with TBI and the factors that influence this have never been formally quantified. This observational study, conducted at the Royal Adelaide Hospital, aims to fill this knowledge gap. The aim of this research is to optimise nutrition for patients with TBI, improving survival and functional outcomes.

# NeuroSurgical Research

## PAEDIATRIC NEUROSURGICAL RESEARCH

**PRINCIPAL FUNDER:** James & Diana Ramsay Foundation

**ADDITIONAL FUNDERS:** Australian Executor Trustees, Harvey Foundation, Letcombe Foundation

**RESEARCHERS:** Dr Amal Abou-Hamden  
Neurosurgeon and Assistant Dr Aye Aye Gyi  
Department of Neurosurgery at the Women's and Children's Hospital



Our priority research to develop an objective clinical outcome scale for paediatric neurosurgery conditions has been completed. The scientific properties of the "Paediatric modified Rankin Scale" have been established and we now have a valid and reliable tool, that is quick and simple to use in everyday clinical practice, to help with the assessment of the burden of paediatric neurosurgical disease and treatment outcomes. This wealth of data forms the basis for the development of hypotheses for future clinical research studies. Data collection and analysis is ongoing for chiari malformations, neurovascular disease and craniofacial disorders.

Shunt infections is an area of high priority in hydrocephalus research. Our ongoing research in this area has focused on better understanding all possible contributing factors and the development of strategies and protocols to prevent them.

Our traumatic brain injury research continues with ongoing prospective data collection on the demographics, mechanisms, severity and outcomes of paediatric head injuries managed at the Adelaide Women's & Children's Hospital.

This work would not be possible without the generosity and support of the James & Diana Ramsay Foundation and the NRF.

## NRF BRAIN CANCER RESEARCH FUNDED BY LIGHTSVIEW RIDE LIKE CRAZY



Kimberly Mander is working to determine the mechanism of cancer cell entry in the development of secondary brain tumours.

Stefan Court-Kowalski, a fourth year Medical Student undertaking concurrent PhD studies, is developing a new approach to brain cancer treatment through the blockade of tumour water channels: Decrease brain swelling to improve quality of life; reduce invasiveness to enhance surgical response; impede tumour growth to prolong survival.

Photo NRF researchers funded by the NRF Kimberly Mander and Stefan Court-Kowalski with members of the Lightsview Ride Like Crazy team, including Chief Superintendent Peter Harvey, Deputy Chairperson of Lightsview Ride Like Crazy.

Funded By: South Australian Police and community members riding in Lightsview Ride Like Crazy to fight cancer, the total donated over the last five years is now more than \$1.1 million.

**Research making a record difference!**



**RESEARCH:** The role of toll like receptor 4 activation following repeated concussion in promoting neurodegeneration

**RESEARCHER:** Dr Frances Corrigan, Lecturer, Adelaide Centre for Neuroscience, School of Medical Sciences

Chronic traumatic encephalopathy (CTE) is a neurodegenerative disease which appears to be exclusively related to repeated concussion. (Concussion is an especially common injury in contact sports such as football.) CTE generally develops in midlife, long after the initial injury, and is characterised by memory disturbances, attention deficits and behavioural problems. The disease appears to be caused by a build-up in the brain of an abnormal protein, hyperphosphorylated tau. The exact mechanism by which concussion promotes

the build-up of this protein is poorly understood. This research looks into the mechanisms by which systemic inflammation accelerates the disease process, promoting tau and leading to neuronal cell death. A better understanding of the progression of CTE will allow therapeutics to be developed which may halt the process.

# Executive Officer's Report



**THANKS** to your support this year a total of \$991,480 has been given to new neurosurgical research projects and equipment for both research and treatment. The institutions and neurosurgical teams who benefit from your generosity now include not only the University of Adelaide, but also the Royal Adelaide Hospital, Flinders Medical Centre and the Women's and Children's Hospital.

Areas of research supported by the NeuroSurgical Research Foundation now include Alzheimer's disease, brain tumours, concussion, motor neurone disease, neurodegeneration, spinal cord injury, stroke, and traumatic brain injury as well as specialist paediatric research into hydrocephalus, shunt infections and traumatic brain injury.

Your ongoing support enables the research teams to continue developing techniques and drugs which are now moving from the laboratory to clinical trials and are expected to result in lifesaving treatments.

## PERSONAL CHALLENGE AND FUNDRAISING EVENTS

Are you thinking about organising a fundraising event like a movie night or cocktail party? Maybe you'd like to set a personal challenge like a bike ride, or try to kick a habit? Why not create your own online fundraising event page and encourage family and friends to sponsor you along the way? Go to the NRF website [www.nrf.com](http://www.nrf.com), click on Fundraise Now and follow the prompts. If you need any help please call me.

This year I have set up my own challenge: In September I will walk 35km in one day to raise money for the NRF. I encourage you to join me and create your own event or join one of our existing fundraising events, such as the City to Bay or Ride Like Crazy or donate to one of our amazing fundraisers.

The NRF thanks the following people, who organised personal challenges and fundraising events this year:

Kristen Dumont - Movie Night For A Cause

Tracey Heath & Christie Pond - Celebrate 4 A Cure for brain tumour research

Kobie Shaw - City 2 Surf for traumatic brain injury research

Kym van den Heuvel - 63km for Philip Hughes for traumatic brain injury research

Adult Brain Cancer Support Assc. - Movie Afternoon for brain cancer research

## CITY-BAY NRF TEAM NEURO!

Since 2011, NRF Team Neuro has raised \$172,000 for the NRF. Team Neuro in 2014 raised \$32,000 and comprised of:

Board Members: Catherine, James and Robert

Neuro Researchers: Corinna, Kym, Anna, Stephanie and Renee

Team Patrick: Team of 20, ran and walked in memory of Patrick Tocaciu

Rockin-Corsettes: Allison, Melissa and Natalie

Bucks for Brains: the Sparrow/Grigoriev families: Greg, Kathy, Dani, Sasha, Mel, & Darcy

Dr Jones & Partners staff and friends: David and the Coorey family, Phil, Beck, Amy and Sancilio family, Patrick, Margaret, Lorne, Hannah, Grace and Jeff

NRF supporters: Anne, Allys, Henrietta, Mark and Sabrina

Thank you to the sponsors: Dr Jones & Partners, Aussie Farmers Direct and Nippy's.

Please join me and the Neurosurgical Research Foundation on Facebook & Twitter for up-to-date research stories, event information, and fundraisers.

Ginta Orchard  
Executive Officer



City to Bay Major Sponsors



Photos Top to Bottom: Kristen Dumont & Ginta Orchard, Kobie Shaw, Adult Brain Cancer Association, Tracey Heath & Christie Pond, Kym van den Heuvel, Stephanie, Anna & Corinna.



# Financials

**THE NEUROSURGICAL RESEARCH FOUNDATION INCORPORATED**  
**STATEMENT OF COMPREHENSIVE INCOME**  
**FOR THE YEAR ENDED 31<sup>st</sup> MARCH 2015**

		2014	2015
		\$	\$
	<b>NOTE</b>		
<b>INCOME</b>			
Donations and Fundraising	2	538,864	899,820
Investment Income		180,819	227,150
<b>TOTAL INCOME</b>		<b>719,683</b>	<b>1,126,970</b>
<b>LESS EXPENSES</b>			
Administrative Expenses	3	(131,019)	(102,532)
<b>SURPLUS BEFORE GRANT EXPENDITURE</b>		<b>588,664</b>	<b>1,024,438</b>
Research Grant Expenditure	4	(245,000)	(894,122)
<b>SURPLUS FOR YEAR</b>		<b>343,664</b>	<b>130,316</b>
Transfer Bequests to Investment Portfolio		---	---
<b>TOTAL SURPLUS FOR YEAR</b>		<b>343,664</b>	<b>130,316</b>
<b>NOTE 4 RESEARCH GRANTS</b>			
NRF Chair of NeuroSurgical Research		25,000	25,000
Brain Tumour Research		80,000	80,000
Paediatric Research		140,000	90,000
Flinders Medical Centre		---	504,900
University of Adelaide		---	148,605
Royal Adelaide Hospital		---	45,617
		<b>245,000</b>	<b>894,122</b>

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 William Buck for pro bono audit services



**THE NEUROSURGICAL RESEARCH FOUNDATION INCORPORATED**  
**STATEMENT OF FINANCIAL POSITION**  
**AS AT 31<sup>st</sup> MARCH 2015**

	<b>2014</b>	<b>2015</b>
	\$	\$
<b>NOTE</b>		
<b>CURRENT ASSETS</b>		
Cash and Cash Equivalents	27,534	45,029
Sundry Debtors	688	---
Prepayments	3,120	2,866
Deposits	1,010,980	1,014,261
<b>TOTAL CURRENT ASSETS</b>	<b>1,042,322</b>	<b>1,062,156</b>
<b>NON-CURRENT ASSETS</b>		
Office Equipment and Computer Software	2,643	1,115
Managed Investment	1,536,079	1,720,848
<b>TOTAL NON-CURRENT ASSETS</b>	<b>1,538,722</b>	<b>1,721,963</b>
<b>TOTAL ASSETS</b>	<b>2,581,044</b>	<b>2,784,119</b>
<b>CURRENT LIABILITIES</b>		
Payables	(141,213)	(217,757)
Provisions	(12,352)	(7,697)
<b>TOTAL CURRENT LIABILITIES</b>	<b>(153,565)</b>	<b>(223,024)</b>
<b>NON-CURRENT LIABILITIES</b>		
Provisions	(7,082)	(7,952)
<b>TOTAL LIABILITIES</b>	<b>(160,647)</b>	<b>(233,406)</b>
<b>NET ASSETS</b>	<b>2,420,397</b>	<b>2,550,713</b>
<b>TOTAL ACCUMULATED FUNDS</b>	<b>2,420,397</b>	<b>2,550,713</b>

## STATEMENT OF CHANGES IN ACCUMULATED FUNDS FOR THE YEAR ENDED 31<sup>st</sup> MARCH 2015

	2014	2015
	\$	\$
<b>NOTE</b>		
<b>ACCUMULATED FUNDS – INVESTMENT PORTFOLIO</b>	1,393,000	1,536,079
<b>ACCUMULATED FUNDS – OTHER</b>		
Opening Balance	733,733	1,027,397
Surplus for the year	343,664	130,316
Transfer to Investment Portfolio	(50,000)	(143,079)
	<b>1,027,397</b>	<b>1,014,634</b>
<b>TOTAL ACCUMULATED FUNDS</b>	<b>2,420,397</b>	<b>2,550,713</b>

### NOTE 5 ACCUMULATED FUNDS

	Investment Portfolio	General Funds	Paediatric Fund	Total
<b>Balance 31/03/2013</b>	<b>1,343,000</b>	<b>198,868</b>	<b>534,865</b>	<b>2,076,733</b>
Transfers	50,000	(200,000)	150,000	---
Surplus Allocation	-	345,396	243,268	588,664
Research Grant Expenditure	-	(105,000)	(140,000)	(245,000)
<b>Balance 31/03/2014</b>	<b>1,393,000</b>	<b>239,264</b>	<b>788,133</b>	<b>2,420,397</b>
Transfers	143,079	(143,079)	---	---
Surplus Allocation	-	1,001,280	23,158	1,024,438
Research Grant Expenditure	-	(894,122)	---	(894,122)
<b>Balance 31/03/2015</b>	<b>1,536,079</b>	<b>203,343</b>	<b>811,291</b>	<b>2,550,713</b>



## How to Support...

### **DONATIONS AND REGULAR MONTHLY DONATIONS**

The NRF relies on your generosity 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. An annual statement summarising your donations will be provided

One-off donations and regular monthly donations may be made either online, at [www.nrf.com.au](http://www.nrf.com.au) and clicking the “Donate Now” button, or by completing the enclosed form.

### **BEQUESTS**

Bequests are valuable gifts which allow us to continue funding major research projects and positions, including trainee fellows and research chairs.

Bequests may be made to the Foundation in your will. To leave a bequest to the Foundation, contact your solicitor who will advise you of the required documentation. Bequests should nominate the NeuroSurgical Research Foundation.

The NRF wishes to thank Thelma May Ryan for leaving a bequest to the NRF.

### **IN MEMORIAM DONATIONS**

In memoriam gifts are donations that are 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. Your funeral director may assist you in ordering our envelopes, or contact the NRF on (08) 8371 0771 and we will deliver in memoriam envelopes and information about the NRF.

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

Maddie Beckett	Douglas Bower	Jack Bowman	Beatrice Dinning
David Davies	Italia Giuliani	Mark Harries	Elias Llanos
Margaret McLean	Kim Morris	Richard Munro	Brian Rayner
Brian Robertson	Robert (Bob) Such		

### **FUNDRAISING**

You can help raise money for the NRF by creating your own fundraising activity or event. Go online to [www.nrf.com.au](http://www.nrf.com.au) and click “Fundraise Now” to start, or phone us and we will assist you.

### **IN CELEBRATION**

The next time you’re celebrating a birthday, anniversary, engagement or special event, why not ask friends and family to forego gifts and make a donation to lifesaving research instead.

The NRF wishes to thank the following In Celebration events created this year: Edward Cioffi



The objective of the Foundation is directed towards research into the cause, diagnosis, prevention and treatment of disease or malfunction of the brain, spine and nervous system.

**NeuroSurgical Research Foundation**

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