

Annual Report 2009-10



Newro
FOUNDATION
New Ideas New Research New Hope

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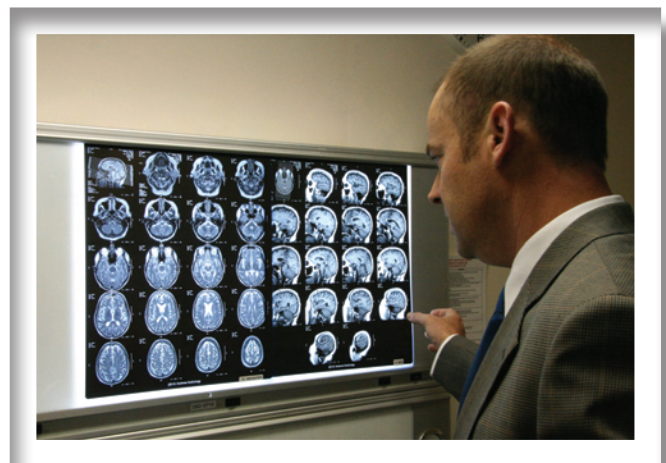
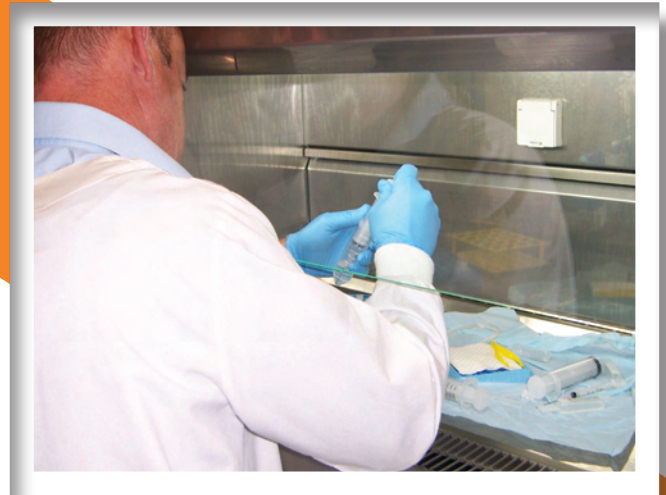
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Managing Director's Report

The Newro Foundation is unique. It was conceived and developed by a small group of Neurosurgeons in private practice with the aim of improving the lives of people with Neurological conditions.

Research Foundations like ours are uncommon in general and rare in private practice.

From small beginnings, the Newro Foundation is on the verge of an exciting and dynamic future. This future is built on our past and current activity. We have been and continue to be, involved in a wide range of research projects into Brain Tumours, Spinal Disease and Movement Disorders.

Our research into Brain Tumours is widespread, from basic research into the molecular mechanisms of brain tumour stem cells (we have sponsored a PhD Student for this project), assessment of immunological deficits in brain tumour patients, through to cutting edge Phase I trials of immunotherapy in patients with malignant brain tumours.

We are also involved in psycho-social research projects on patients and their families, recognising that some of the greatest stresses and needs for families is not often obvious to clinicians.

We collaborate with a broad range of scientists and other researchers at other institutions in Queensland, including the Queensland Institute of Medical Research, Griffith University and the University of Queensland.

The Newro Foundation is the only centre in



Queensland (and only one of a handful in Australia) involved in a multicentre international trial to treat lumbar disc degeneration – a large source of low back pain. Low back pain is a major problem in our society and we are excited to be contributing to this important area of research.

Through our association with Professor Peter Silburn (neurologist and scientist) we continue our research into movement disorders and the surgical treatment of these devastating conditions by Deep Brain Stimulation.

“We, as Directors, feel privileged to be involved in these projects. The nursing and administrative staff involved are dedicated and committed.”

Overall, as a group, we look to our patients, past, present and future, for guidance. They are our motivation.

Dr David Walker
Managing Director

Research

Killer T-Cell Therapy for Glioblastoma Trial

This research is a combined project between Griffith University, the Queensland Cancer Council and Newro Foundation. The aim of the project is to develop and evaluate a counseling and rehabilitation program for supporting adjustment to brain tumour. This will be designed according to the goals and support needs of each person and family.

Examples of the support given by the neuropsychologists from Griffith University to brain tumour patients and families are:

Education about the brain and effects of the brain tumour on brain function.

PhD Student Sponsorship

In the Radiation Biology and Oncology laboratory at the Queensland Institute of Medical Research (QIMR), work focuses on understanding DNA damage responses in brain tumour stem cells (BTSCs). A recent hypothesis suggests that not all cancer cells are responsible for maintaining the growth of tumours.

Cancer stem cells (CSCs), a relatively small population of cells within the tumour, have the ability to indefinitely self-renew and proliferate. Consequently CSCs have become a new focus for understanding cancer progression.

Ionizing radiation (IR) or radiotherapy is a major component of the treatment for patients with brain tumours. IR works by inducing damage to the DNA within tumour cells and consequently causing cellular deaths.

When lethal DNA lesions or double strand breaks (DSBs) are introduced into cells by IR, DNA sensor, transducer and mediator proteins

Individual, couple and family adjustment counseling.

Rehabilitation strategies for managing changes in cognition and behaviour.

Our role in this research is to find patient's who may be appropriate to participate in this project, contact them and if they are interested send an information brochure to them with the details of the project coordinator. The research project commenced in May 2010 and will be conducted over three years.

are recruited to the damage site to orchestrate a series of downstream events to remove the lesion. When the damage cannot be successfully repaired the cells will die. Many brain tumours are resistant to radiation therapy and this group is investigating the mechanism involved.

Studies have shown that BTSCs can express varying levels of proteins essential for DNA damage repair. Interestingly, we have shown that BTSCs may be defective in one major pathway of DNA repair (known as non-homologous end joining), but this is compensated for by increased effectiveness of the second pathway; homologous recombination (HR).

HR is usually the lesser utilized of the two pathways but this is not the case in BTSCs. HR is also the more effective of the two pathways and being far less likely to introduce errors into the DNA. Therefore BTSCs may have more efficient DNA damage repair allowing them to withstand higher doses of IR.

We next aim to examine whether specific inhibition of HR in BTSCs may lead to an improved response to radiotherapy.

Intradiscal Study

This is a multi-centre trial that was initiated in the United States of America. The Newro Foundation is the only centre in Queensland involved in this International study.

The Intradiscal study is designed to assess the safety and effectiveness of a synthesised growth hormone that has been discovered to influence growth of tissues, including the intervertebral disc cells for the treatment of disc degeneration.

In suitable patients, the trial consists of an injection of a growth hormone into a degenerate lumbar disc, with the hope that with regeneration, the patient's back pain can be improved.

The population in our study are over 18 years old, have experienced lower back pain for over three months and have not had any form of medical treatment.

To date, the study in the USA has had 38 patients

Making Sense of Brain Tumour

This research is a combined project between Griffith University, the Queensland Cancer Council and Newro Foundation. Making Sense of Brain Tumour is still in the early trial stages and only began in May 2010.

The aim of this project is to develop and evaluate a counselling and rehabilitation program for supporting adjustment to brain tumour.

This is obviously a difficult time for patients and the trial will be designed according to the goals and support needs of each individual person and family.

Examples of the support given by the neuropsychologists from Griffith University to brain tumour patients and families are:

Education about the brain and effects of the brain tumour on brain function.

injected with the synthesised growth hormone and have had no severe adverse events related to the drug.

Since Newro Foundation started recruiting for study rh-GDF-5-02 in March, we have screened ten patients. Three of the patients have been injected with 1mg dose of the drug without any severe adverse reactions.

We now have ethics approval to increase the dose to 2mg and all subsequent patients will be receiving the new dose.

In June 2010 we attended a Musculoskeletal Focus Group Dinner at the Tattersall's Club. There were 10 Doctors attending this event, all specialising in back disorders and specifically disc degeneration.

This dinner proved to be very beneficial in terms of the study, networking and increasing interests on recent research. We have had over ten patients referred from this group of Doctors.

Recently with the generous assistance of APN we had an advertisement go into several regional papers around Brisbane, Sunshine & Gold Coast area. The response was quite rapid and within a few days, 33 PICF's were sent to prospective patients.

To date we have scheduled seven patients for a screening visit with more to follow.

This study is sponsored by Janssen-Cilag Pty Ltd.

Individual, couple and family adjustment counselling.

Rehabilitation strategies for managing changes in cognition and behaviour.

Our role in this research is to find patients who may be appropriate to participate in this project, contact them and if they are interested send an information brochure to them with the details of the project coordinator.

This trial enables Newro Foundation to better assist our patients and provide them with the mental and physical support needed.

This research project will be conducted over the next three years.

Research

Spinal Outcomes Survey (SOS)

S.O.S, Surgical Outcome Survey, is a web-based or internet program designed to assess the short-term and long-term outcomes following the management of lumbar spinal conditions and cervical spinal conditions from the perspective of both the patient and the surgeon.

S.O.S is a quality and service improvement initiative designed by local surgeons using internationally validated surveys designed to assess degenerative conditions of the cervical and lumbar spine.

Survey based assessment incorporates both patient and surgeon's perceptions of the outcomes, as well as surgical and clinical data. The assessments are repeated measures at baseline (pre-operatively), six weeks, six months, one year and two years post surgical intervention

S.O.S will enhance the ability of an individual practice to assess results from surgery through the use of standardised data collection.

What are the features of S.O.S?

Is an automated service

Is paperless

Does not require manual data entry

Provides de-identified data export for analysis

What are the benefits of S.O.S?

Reduces manual labour, so it is both time and cost efficient

Does not require printing and posting of forms, saving time and money

Decreases data entry error and possible bias

Eliminates the need to store paper forms, lessening amount of storage space required

Data security as all information is encrypted to ensure communication privacy

Allows surgeons to monitor results in the most efficient and cheapest way possible

Allows data collection for national collaborative initiatives

Can be modified for specific research projects

The S.O.S initiative will contribute to the development of a standardised national neurosurgical database to improve the outcomes following surgery.

S.O.S enables the export of information for numerous purposes including assessment of patient response to surgery, clinical audit/quality assurance activities, as well as providing the capacity for conduct of studies that compare surgical procedures.

Case Study - Kevin Trickey

Mr Trickey was the first person in the world to undergo a revolutionary treatment for his malignant brain tumour, using his own immune system. After taking his blood cells, these were then expanded in the laboratory and infused back into Mr Trickey via a vein in his arm (see picture). He had a total of four of these treatments. Kevin has done remarkably well and his tumour has not shown any signs of returning, despite it being now over 18 months since he received this treatment.

Neuro-Oncology Nurse Practitioner - Vivien Biggs

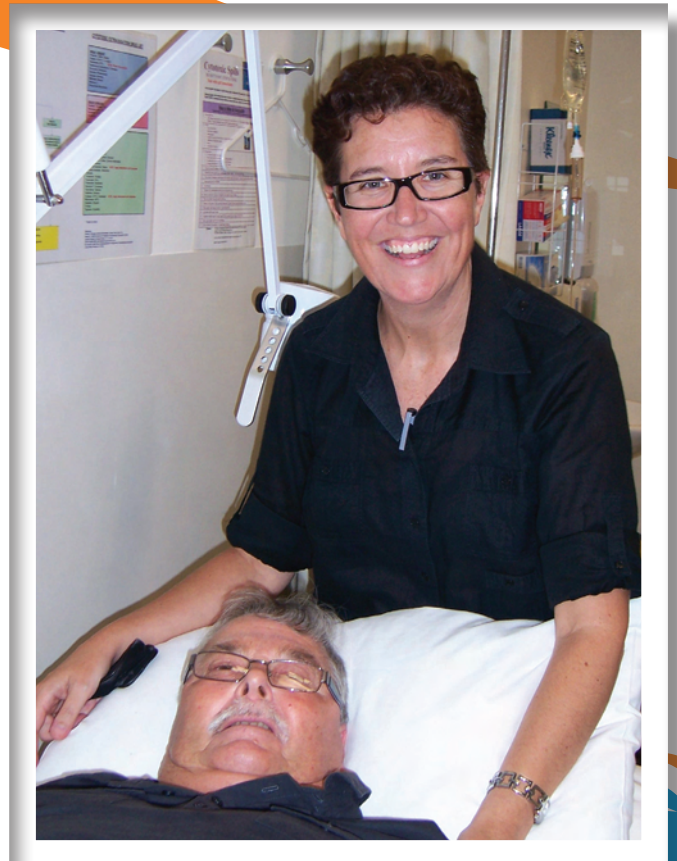
Newro Foundation has supported Vivien Biggs through her Masters degree in the role as an accredited Neuro-Oncology Nurse Practitioner.

There has been a long realised need for individual and co-ordinated nursing care for tumour patients and the the role has developed over the past three years. The recognition of this role by the medical authorities has justified our present and past commitment to co-ordinated care for patients and their families.



Pictured (clockwise from above):

- 1) Dr David Walker in Wesley Research Institute laboratory
- 2) Kevin Trickey with Newro Foundation Nurse Practitioner, Vivien Biggs



Fundraising

Brain Tumour Awareness Walk

The inaugural Brain Tumour Awareness Walk was held on 1 November 2009 at New Farm Park to launch International Brain Tumour Awareness Week.

Employees from BrizBrain & Spine, Newro Foundation, St. Andrew's Hospital and The Wesley Hospital, as well as BBS patients, families and friends, sacrificed their Sunday morning to walk four kilometres to raise funds and awareness for brain tumour research.

Over 250 people attended and proudly wore bright orange t-shirts during the Sunday morning stroll. Dr David Walker opened the event by thanking all the walkers and reflecting on the importance of brain tumour research.

Afterwards, the walkers enjoyed a well-earned sausage sizzle as they socialised together in the park to mark the end of a triumphant fundraiser.

The Walk Around the World for Brain Tumours concept is an international event that seeks to raise funds for brain tumour research.

This annual event is run by the International Brain Tumour Alliance (IBTA), who encourage communities around the world to participate in their own walk and raise funds for local brain tumour research.

The walking mileage from each individual event is symbolically donated to IBTA with every step taking us one step closer to a cure for brain tumours.

The Newro Foundation Brain Tumour Awareness Walk contributed over 1,000 kilometres to the world walk target, which is a great result.

Since the IBTA began this international fundraiser in 2007, a total of 109,488 people around the world have walked 563,845 kilometres

Funds were raised from newly founded events including the Brain Tumour Awareness Walk, Orange Thumbs & Cricketers for a Cure events.

Making 09/10 a successful year!

and have raised the equivalent of USD \$14.6 million.

Thank you to everyone who participated in the Newro Foundation walk and helped to make it such a success.

Newro Foundation raised a total of \$7,000.



Orange Thumbs

Orange Thumbs Day was held on 18-19 September 2009 in Bundaberg. In exchange for a gold coin donation, many residents painted their thumbnails with vibrant orange nail polish to raise money for Newro Foundation and Camp Quality Bundaberg.

The concept began when local Bundaberg resident and Newro Foundation volunteer, Garry Lawton (*pictured right*) succumbed to having his nails painted by a child at Camp Quality, where he often spends time as a volunteer.

Mr. Lawton spent the next week collecting donations from anyone who enquired about his brightly painted fingers, and so the event was born.

Orange Thumbs was highly successful and we were thrilled with the showing of community support, raising a total of \$3,654.

In May 2010, Garry embarked on a run

from Rockhampton to Brisbane to raise more money. From 9 May to 1 June 2010, Garry ran 628 kilometres through various towns to collect donations and raise awareness of the foundation and the importance of brain tumour research.

During the Orange Thumbs Run, Garry raised over \$7,000 from visits to many different locations, including Rockhampton, Gladstone, Bundaberg, Childers, Hervey Bay, Maryborough, Gympie, Pomona, Nambour, Landsborough and Caboolture, with the official finish line at the BrizBrain & Spine office at the Wesley Hospital.

Newro Foundation would like to thank Garry for his fundraising efforts and congratulate him on the achievement of completing this difficult feat.



Community Support

Newro Foundation receives wonderful support from the community, with many fundraisers held on our behalf.

On 29 November 2009, the inaugural Kevin Jackson Memorial Golf Day was held to commemorate the life of Kevin Jackson.

His family arranged a fundraiser at Sandy Gallop Golf Course, Ipswich, for all of the community to get together and be able to remember Kevin, as well as raise funds for further research.

The day raised an impressive \$2,707 for the Newro Foundation and we would like to thank everyone involved on the day for their fantastic efforts to raise such an amazing amount.

On 30 March 2010 a fundraiser was organised by Janette Lynch (mother of Danielle) at the Estee Lauder corporate store at Milton, a shop not normally open to the public.

This event gave attendees an exclusive opportunity to shop for discounted make up and other beauty products, whilst donating to a good cause.

The Estee Lauder fundraiser raised just over \$600, with staff at the corporate store donating extra product to Newro Foundation for use in future raffles.

Finally, June 2010 saw the Cricketers for a Cure Golf Day at Laidley Golf Course.

With a full course of golfers, auctions, raffles and dinner afterwards, the event was highly successful, raising a total of \$12,355.10.

Thank you to everyone who contributed to fundraising for the Newro Foundation in 2009-10.

Corporate Governance

Dr David Walker **Managing Director**

Dr David Walker is a neurosurgeon at BrizBrain & Spine and remains active in research, both at the clinical and basic science.

Dr Walker completed his undergraduate medical training at the University of Queensland and studied for a doctorate PhD at the Queensland Institute of Medical Research, before undertaking advanced neurosurgical training at the Royal Brisbane Hospital and Royal Melbourne Hospital.

Dr Walker was Neuro-Oncology Fellow at the prestigious Brigham and Women's Hospital in Boston, USA and was also appointed a position at Harvard University during this time.



Dr Frank Tomlinson **Director**

BrizBrain & Spine's senior surgeon, Dr Francis Tomlinson is a neurosurgeon and a specialist in the surgical treatment of conditions of the brain and spine.

Dr Tomlinson completed his undergraduate medical training at the University of Queensland and received his advanced neurosurgery training at the Royal Brisbane Hospital, while also studying for his doctorate PhD.

He has previously worked at the prestigious Mayo Clinic in the United States of America, as well as the Royal Brisbane and Royal Children's Hospitals as a Clinical Associate Professor, supervising neurosurgical training.

Dr Tomlinson's extensive experience in neurosurgery ensures he is an asset to the Newro Foundation.



Dr Terry Coyne **Director**

Dr Terry Coyne obtained his medical degree from the University of Queensland and trained as a specialist neurosurgeon at Townsville, Royal Brisbane and Princess Alexandra Hospitals.

Dr Coyne continued his neurosurgical training at the University of Toronto, Canada and returned to Brisbane to commence an appointment as a Visiting Medical Officer (Neurosurgeon) at the Royal Brisbane and Royal Children's Hospitals.

His practice within BrizBrain & Spine covers a broad range of adult neurosurgery, with particular interests in cerebrovascular surgery, skull base surgery, spinal surgery and movement disorder surgery, including deep brain stimulation (performed in conjunction with neurologist Dr Peter Silburn). His unique expertise in this area is particularly useful to further research within Newro.



Dr Richard Kahler

Director

Dr Richard Kahler is a specialist neurosurgeon adept in all conditions requiring cranial surgery and spinal surgery. Born and raised in Queensland, he completed his medical degree at the University of Queensland and neurosurgical training was attained in Townsville, Brisbane, Perth and the United Kingdom.

Dr Kahler is fully trained in all aspects of neurosurgical care and is at the cutting edge of minimally invasive surgical techniques and the utilisation of computer-guided surgery.

Dr Kahler honed his skills and developed new techniques during 12 months of advanced training at Frenchay Hospital in Bristol, United Kingdom. This training was specifically directed at complex and computer-guided spinal surgery. He was also involved in the research of spinal artificial disc surgery and Dr Kahler continues to focus on these techniques as well as minimal access 'keyhole' spinal surgery.



Dr Michael Bryant

Director

Michael Bryant is a neurosurgeon and joined BrizBrain & Spine in 2009.

Dr Bryant completed his undergraduate medical training at the University of Queensland in 1997. He undertook advanced neurosurgical training at the Royal Brisbane and Royal Adelaide Hospitals. During his training, Dr Bryant undertook a year of research at the Queensland Institute of Medical Research, furthering his knowledge of brain tumour behaviour and treatments.

Following this research, Dr Bryant was made a Neuro-Spinal Fellow in 2008 at the Flinders Medical Centre Adelaide, working in the busy and ever-expanding Spinal Unit. During this time, he also worked in the highly regarded Royal Adelaide Hospital Spinal Unit – a widely sought after training opportunity for neurosurgeons and orthopaedic surgeons from around the world.

Mr Bruce Stanley

Non-Executive Director

B Bus (Accounting) QUT, CA, CPA, GAICD

Non-Executive Director (Chairman) appointed 1st September 2009.

Mr Stanley is a chartered accountant with strong management experience in business and healthcare services. Mr Stanley is the Director of Synstra, a consulting firm specialising in providing strategic and business advice to the health and medical industry. He has held General Management and Chief Executive Roles in Pathology, Radiology, Radiation Oncology and IVF organisations. He is a Non-Executive Director of BrizBrain and Spine Pty Ltd, the operating service entity for the BrizBrain & Spine practice.



Finance

Summary of financial information

Income and expenditure for the period ended 30 June 2010

| INCOME | 2010 | 2009 |
|--|----------------|-----------------|
| | \$ | \$ |
| Donations | 199,931 | 109,384 |
| Fundraising | 33,365 | 0 |
| Grants and Subsidies | 144,056 | 59,091 |
| Other Income | 0 | 1,368 |
| TOTAL INCOME | 377,352 | 169,842 |
| | | |
| EXPENSES | | |
| Administration | 83,176 | 54,797 |
| Fundraising | 4,441 | 0 |
| Marketing Activities | 4,608 | 35,296 |
| Research and Trial Expense | 161,407 | 228,855 |
| Sponsorships and Scholarships | 10,000 | 0 |
| TOTAL EXPENSES | 259,191 | 318,948 |
| | | |
| NET OPERATING SURPLUS (LOSS) | 118,161 | (149,106) |
| Accumulated Funds at the beginning of the financial year | (44,198) | 104,908 |
| TOTAL AVAILABLE FOR DISTRIBUTION (LOSS) | 73,963 | (44,198) |
| | | |
| RETAINED PROFITS (ACCUMULATED LOSS) | 73,963 | (44,198) |

The full 2010 financial accounts have been verified by audit partner Christopher Lee Sammut of independent auditing firm, Bennett Partners of Level 3, 400 Queen Street Brisbane Qld 4000. A copy of these accounts is available on request from the Marketing Department on 07 3833 2500.

Budget for the 2011 financial year

| INCOME | 2011 |
|--|----------------|
| | \$ |
| Donations | 250,000 |
| Fundraising | 100,000 |
| Grants and Subsidies | 150,000 |
| Other Income | 0 |
| TOTAL INCOME | 500,000 |
| | |
| | |
| EXPENSES | |
| Fundraising & Marketing Expenses | 35,000 |
| Research Activities & Administration | 300,000 |
| PhD Scholarship Sponsorship | 10,000 |
| Other expenses from ordinary activities | 100,000 |
| TOTAL EXPENSES | 445,000 |
| | |
| | |
| Operation Surplus/(loss) from ordinary activities | 55,000 |
| Retained profits at the beginning of the financial year | 73,963 |
| Retained profits at the end of the financial year | 128,963 |

Corporate Donors

 **Schering-Plough**

Medtronic


Medtronic

Schering-Plough

Orphan Australia

