



**Hunter Transplant
Research Foundation**
RESTORING LIFE



In partnership with our community



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA



Health
Hunter New England
Local Health District



today's **research** *is tomorrow's* transplant practice

We're building a new world class centre for transplant research in the Hunter... Please partner with us today and make a real difference

Background

After 25 years the Newcastle Transplant Unit has become a leading renal transplant unit in Australia, a reputation gained from its service quality, innovation, research and development. It also has an emerging international standing and is one of the excellent health service units in the Hunter New England Local Health Network.

It is now time to advance this Unit by establishing a structure that enables growth of its research and development. Currently these activities are hampered by a lack of a sustainable structure and time from clinicians committed to a busy service yet possessing fruitful ideas. The structure proposed will overcome these deficiencies. It will also enable the translation of its research and development into clinical practice. Such translation is a key aim of this proposal. This practical application is illustrated by the Unit's construction of Transnet, Australia's first point of clinical care software programme in transplantation, organ donation and renal medicine. In brief this programme has revolutionized transplant practice by delivering accuracy of data, better results, improved communication and a near paperless practice. Other current research projects that require translation to the clinic include the application of an integrin molecule ($\alpha v \beta 6$) defining renal injury to the study of ischaemia/ reperfusion injury, the application of a novel immunosuppressant to the clinic and the application of tolerance markers to the clinic.

Transplantation in general is a dynamic clinical practice that has advanced significantly since inception in 1954 because its research and development have been integrated into clinical practice. Now the cloning of the human genome has created the opportunity of systems biology which means that recipients' gene arrays can be analysed. This will create diagnostic and treatment possibilities potentially improving results. For instance these technologies can be used to detect the tolerant recipient enabling safe reduction of immunosuppression; they can also be used to detect early antibody mediated rejection to allow for accurate treatment. Taking advantage of such developments will require a formal research structure outlined in this proposal. The Newcastle Transplant Unit now wishes to set up a new Research Centre to maximise these research achievements and opportunities.



Madilyn's Story - 9 years old

The thing I love best about my transplant is being a normal girl again, just like everyone else.

I can swim, go to the beach and play in my backyard. I can have sleep overs and we can even go camping in our caravan. I can eat and drink whatever I want now.

I don't have to be hooked up to my dialysis machine every night, so sometimes I get to stay up late.

So who benefits from this Research Centre?

Transplant recipients will benefit by identifying those who are partially tolerant of their transplant immunosuppressive drugs. This may mean they can be reduced or withdrawn. If so, then transplanted children would not have stunted growth as they do now, the high cancer risk amongst recipients would be reduced and the risk of infection would also be less. To accurately diagnose chronic rejection through research will most likely lead to better long term treatment and may mean better transplant survival for recipients.

The Indigenous population requiring transplantation is increasing a lot. These recipients including those in rural areas, and children would benefit from improved point of clinical care management software called Transnet, which is an initiative of the Newcastle transplant program and also developed here in Newcastle. This program manages the information of all transplant recipients wherever they live and is an invaluable tool for research development.

The Centre will provide better opportunities for training local physicians/ surgeons and post doctoral scientists in research. Strong partnerships with other research teams in the Hunter and internationally will also result. In time we hope the Centre will contribute to the standard of transplant practice in Australia and overseas too.

Why does Newcastle need a Research Centre in transplant immunology?

Transplantation is one of the major medical triumphs of the last 60 years. It not only saves lives; it restores life allowing people with organ failure to go forward and lead fulfilling lives after transplantation.

Over this time improved outcomes for patients have been achieved because research findings have been carefully applied to recipients and live donors. However, major problems in transplantation remain unsolved e.g. chronic rejection, tolerance and transplant- related cancer. The good news is they can be solved by scientific research combined with collaboration between transplant scientists and clinicians. Now new opportunities to solve these problems have come about because the human gene structure has been defined. Therefore today's research becomes tomorrow's transplant practice.

What difference will it make?

With a dedicated research team and a professor in transplant immunology on board, the new centres' research findings in transplantation will be translated into clinical practice.

The centre will also collaborate with other teams in the Hunter Medical Research Institute and other international Centres. We are excited about future clinical applications that will have been built on research from the Newcastle Transplant Unit done in the last 25 years.

Alison's Story

In 2001 I received this miraculous gift of a transplant. I had been very sick while waiting for a transplant and lived every day in fear my life would end before it was restored.

My story could have been sadly different like so many who's second chance never comes. The gratitude I feel towards my donor and the incredible transplant team at the John Hunter Hospital is immeasurable. They have given me the ability to live this amazing life and my family back their mother, wife, daughter & sister.



Kelly's Story

Having this transplant means everything to me; I have a better quality of life.

Since the transplant I have been able to do more things. I've gone back to working in our Oyster farming business and enjoying my favourite activities like golf and travel. I attended my very first world transplant games in Sweden in June this year, and what an experience that was.

Besides winning a gold medal in golf I was the first indigenous athlete to represent Australia at the world transplant games so I carried the indigenous flag at the opening ceremony in the city of Gothenberg, Sweden. It was a special moment for me and I was very proud.



Michael's Story

When I was 18, I woke up one morning with one swollen leg. My GP referred me to a kidney specialist as I had traces of protein and blood in my urine. Further extensive testing including a kidney biopsy revealed I had an acute kidney disease which was rapidly killing off both my kidneys.

Kidney Dialysis was a very tough period. Fortunately my wife and family were there every step of the way keeping me positive throughout the process. My mother went through extensive tests to see if she was able to donate her kidney to me.

After 9 months of dialysis, my mother was told she was able to donate her gift of life to me. I am 32 years old; still blessed with my mother's kidney with only a few hiccups along the way. I am able to again surf, play football and golf. Best of all through the transplantation process my wife and I have one beautiful 2 year old daughter and another miracle baby on the way! Myself, my mother and my new family live a normal life today thanks to the transplantation process. A big thankyou goes out to the whole Newcastle Transplant Team who made this possible.



Adam's Story - 10 years old

*I don't really remember much about life before my kidney transplant or when I was on dialysis because I was only 1 year old, but I've seen lots of photos and my family have told me a lot about it. So the 5 things I like best about having had a transplant are:
I can play soccer. I have lots of fun hanging with my friends and family. I can go swimming. I can have sleep over's with my mates, and the last but probably the best thing about having had a transplant is... We can go on family holidays whenever we want now I'm not stuck on a Dialysis machine, and I've even been to Disneyland!*



Peter's Story

In April 2002 my 1 year old son Adam was diagnosed with chronic renal failure and commenced on dialysis. It was a huge shock as he was born healthy & had remained so up until his first birthday when he became unwell and eventually ended up on life support at John Hunter Hospital. When we found out he would need a renal transplant there was never a thought that a family member would not donate, it was just a matter of working out who would be the most suitable. It became a long drawn out process due to medical complications but in the end I was the most compatible and in October 2002 I donated a kidney to our sick, frail little boy. It was his best chance of being able to lead a normal healthy life and the most amazing gift I could ever give him.

He is now able to do most things that other 10 year old boys can do like play soccer, swim, ride his bike & play with his mates. This would never have been possible without a transplant as children do not grow or develop fully on dialysis. To see him running around now just like any other 10 year old boy is a fantastic feeling.



Bernie's Story

I was offered a job as an underground fitter in a colliery, subject to passing a medical. The doctor said I had a lot of protein in my urine, indicating kidney failure. I had a checkup, only to find after ultrasound and xray, that one kidney wasn't functioning at all, and the other only at 25%. I had to go on dialysis 3 times a week for four and a half hrs each time. But I was very despondent after all that had happened, and I found life not worth living. I seriously considered ending it all, because I was also in massive pain from an injury to my spine. My son Peter who holds a commercial pilots licence, offered me one of his kidneys as a live donor.

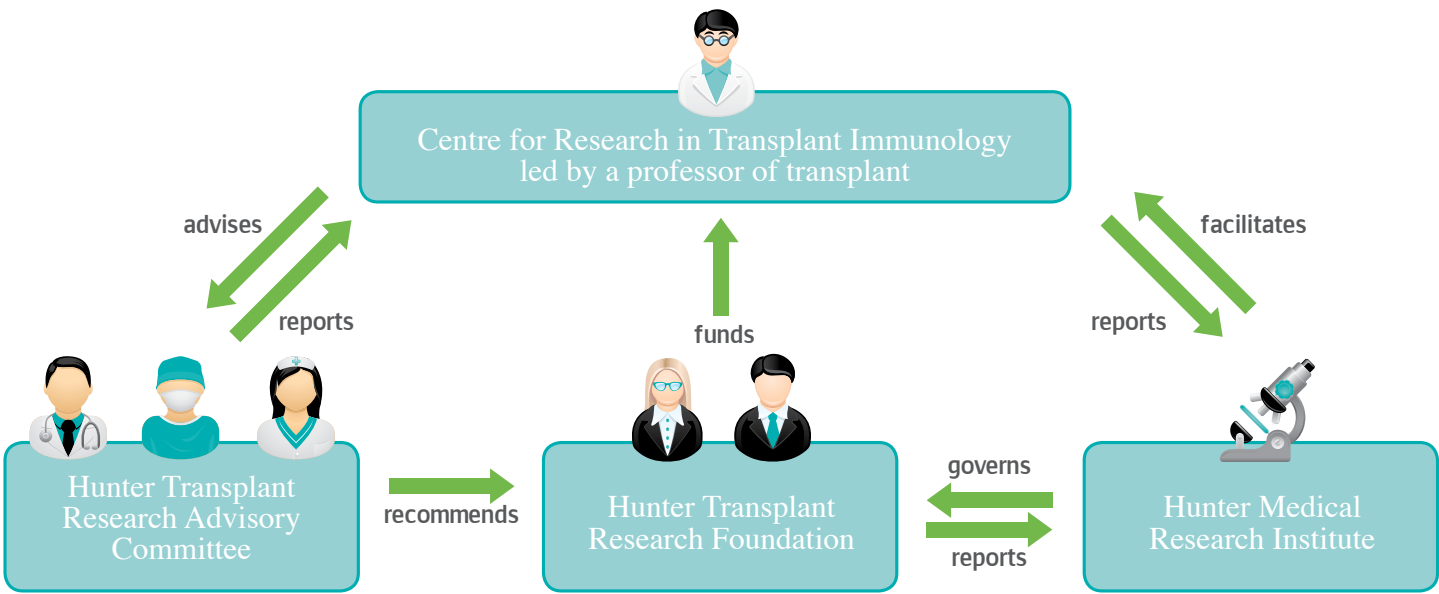
In August of 2010, we had our operation. A month later Peter went back to work in WA, and it felt like I was born again. I found I could work in my garden, play bowls, in short live a much more normal life without tiring as before. Back pain has improved also with exercise. I shall be forever grateful to those dedicated and expert people at our Newcastle Transplant Unit - JHH, plus my dear son, for they gave me back my life. May God Bless Them All.



Restoring
life

How will the Research Centre work?

The Hibberd Centre for Research in Transplant Immunology Functional Structure.



How is it governed and who has financial control?

The financial control lies with the Hunter Transplant Research Foundation which is a subcommittee of the Hunter Medical Research Foundation. The Hunter Transplant Research Foundation is accountable to the Board of Hunter Medical Research Institute. This Institute is a company limited by guarantee, with its operations overseen by an independent Board of Directors and is a licensed fund raising body in NSW and Australia.

Professor Adrian Hibberd

I'm passionate about transplantation because it transforms the lives of sick patients. As a surgeon I am putting in an organ, making a difference but knowing it is risky. I often sense the excitement of new ideas in transplant immunology and like to contribute to these developments where I can. I respond to the challenge of it all. Real teamwork is what's necessary and that appeals to me. Producing good transplant surgeons, physicians and nurses from our programme just adds to my satisfaction.



Dr. Paul Trevillian

For me Transplantation medicine represents one of the highest callings of our profession. I love the whole process of transplantation from the strong bonds that develop between patient and physician during the journey from dialysis, through transplantation, to a healthy new life. The rigorous process of matching patients to donors to ensure the best possible outcome. The challenge to one's general medical knowledge from immunosuppressed transplant patients who can conjure up almost any illness in the text books and a few that aren't. This age of rapid communication any transplant physician anywhere in the world can learn of new developments virtually as they happen and incorporate them into clinical practice. Transplantation is a relatively young science it is at the absolute cutting edge of immunological research with countless major breakthroughs that have benefited many other disciplines. Most of all I love the fact that every transplant is a team effort from clever physicians, skilled surgeons, dedicated young doctors, highly trained nurses, laboratory and technical staff, administrators and secretaries and a myriad of consultants.



Who is behind it?

- The Centre is fully supported by
- The Hunter New England Local Health Network
 - The University of Newcastle
 - The Hunter Medical Research Institute

Vision

Our vision is that problems in transplant clinical practice can be solved by integrating research in transplant immunology with practice. Our vision is for a dynamic alliance between the laboratory and clinic; and other national and international transplant research centres. Our vision is the application of molecular and systems biology grown from cloning the human genome to transplant research and practice. Our vision is the integration of Transnet with business intelligence software and other transplant databases to accurately define clinical problems. Our vision therefore is that substantial improvements in transplant recipient outcomes can be achieved.

Mission

- to study tolerance in transplantation and to detect tolerant transplant recipients
- to study antibody mediated rejection improving its diagnosis and treatment in the clinic
- to apply the genome related technologies of systems biology to the clinic
- to define the risk factors and pathogenesis of cancer in transplant recipients
- to develop preventative treatment for ischaemia/reperfusion injury which all transplanted organs suffer
- to facilitate the research training of advanced trainee physicians and surgeons and post doctoral scientists
- to collaborate with research/clinical groups in the Hunter New England Local Health Network sharing technologies and objectives
- to communicate with the community about benefits and aspirations of this work



We need your help!

Here in Newcastle we have had great successes in this clinical field. With over 25 year's experience, we believe Newcastle has an abundance of information to help solve some age old mysteries. It's high time we embraced the talent and expanded on the knowledge produced from one of the country's finest teaching hospitals.

Now we need your help in making this a reality. Without the generous support from people like you, we could not achieve all we have to date and plan to in the future.

How you can help

Give once

We will use your gift to help transform the lives of many patients with organ failure.

Give monthly

By giving monthly you will enable our research team to continue important work that will transform lives.

Workplace giving

Encourage your colleagues to help by making a regular pre-tax donation through payroll.

Corporate partner

Become a foundation member as we launch in 2012. We are keen to discuss opportunities with your business today.

Organise a fundraiser

Help raise much needed funds through a community event, raffle or chocolate run.

Memorial

request a donation in lieu of flowers at your loved ones funeral.

Leave a bequest

Your generosity will allow the HTRF plan for vital research work in the future and therefore ensure we can carry on making a difference in the every growing need for transplantation in the years to come.

Please partner with us today and make a real difference

For more information on ways to help, please visit
www.htrf.net.au or phone **02 4921 4326**



Make a donation

Tax deduction for a donation of \$2 or more.

I would like to make a donation of \$ _____ to the Hunter Transplant Research Foundation.

Name _____

Address _____

Phone _____ Email _____

Payment by ☐ VISA ☐ Mastercard ☐ Cheque

Card Number Expiry /

Name on card _____

Signature _____

Cheques should be made payable to

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