



Dr Anne La Flamme

Funding brings Multiple Sclerosis clinical trial closer

The journey to deliver a new (and first-ever) treatment for secondary progressive MS has been bolstered by a \$1.2 million grant to Dr Anne La Flamme, a long-time associate of the Malaghan Institute, who was recently awarded the funds through the Ministry of Business, Innovation and Education's 2015 Science Investment Round.

MS can be broadly categorised into four basic clinical patterns. While there is no cure, disease-modifying drugs are available but are only effective in the relapsing-remitting form of MS. There are no long-term therapies for the secondary progressive form that causes patients the greatest reduction in quality of life.

Anne's plan is to build on her experimental models and trial the use of low doses of two commonly prescribed anti-psychotic drugs, risperidone and clozapine, in people who have secondary progressive MS.

"These drugs have been used for decades to treat patients with various mental health disorders, but to adapt

them to treat MS, we must balance the possible side effects with the drugs' potential therapeutic benefits. Many people assume incorrectly that because a drug has been through clinical trials at a dose specific for one disease, investigations for another purpose would be rudimentary. But taking a higher dose to treat an episode of psychosis is a long way from taking a drug at smaller doses over many years and MS patients may live with their disease for several decades. The ultimate aim for MS researchers worldwide is to find a way to prevent MS. The next best option is to stop the disease progressing and to restore function lost especially in people with the progressive forms of MS. Finding new treatments for this group of patients will make a huge difference to many lives," says Anne.

The trial is planned to take three years to complete. The ultimate aim of this clinical trial is to determine which drug is more acceptable and shows therapeutic promise.

OUR RESEARCH
World class

OUR PEOPLE
Global impact

YOUR SUPPORT
Our inspiration

From the Director

As 2015 draws to a close it is a natural juncture to examine comings and goings, achievements and change.

Several of our younger staff will leave us having completed their PhDs. Many of you will know them personally or generously supported their studies. Most are bound for post-doctoral work in the Northern Hemisphere and decades ago, there the story might have been expected to end; glorious careers happening somewhere else.

But the world has changed and we are now on the map as a world-class facility. I want to take the opportunity to expand on the theme of how we have built this confident, independent medical research facility, and how much richer New Zealand's society is for it. I want to share with you how one person could be viewed as an unseen pillar of the Malaghan Institute, and honour him.

Dr William E (Bill) Paul who passed away this September, was my mentor when I first met him in 1987 at NIH Washington DC, and remained so. The role he played in helping establish my career in New Zealand, supporting major grants, and creating the scientific momentum that we now enjoy, is considerable.

Bill spoke at New Zealand conferences empowering our scientific community. He enabled Franca and my sabbaticals at the NIH Laboratory for Immunology, which furthered strengthened international networks, and allowed us to take back to New Zealand break-through research technology. This momentum helped me to make several



Above: Professor Graham Le Gros
Right: Graham and Bill (from dinner May 2014)

successful HRC funding proposals and put our research at the cutting-edge internationally.

Now this vital pillar is gone but his confidence and support, his mentorship and friendship, have created a strong and enduring legacy. Each supporter of the Malaghan Institute is vital. Without any part of the structure we would be less. We are now on an independent journey with medical research in New Zealand and I acknowledge the supporters such as Bill Paul and yourselves, who have

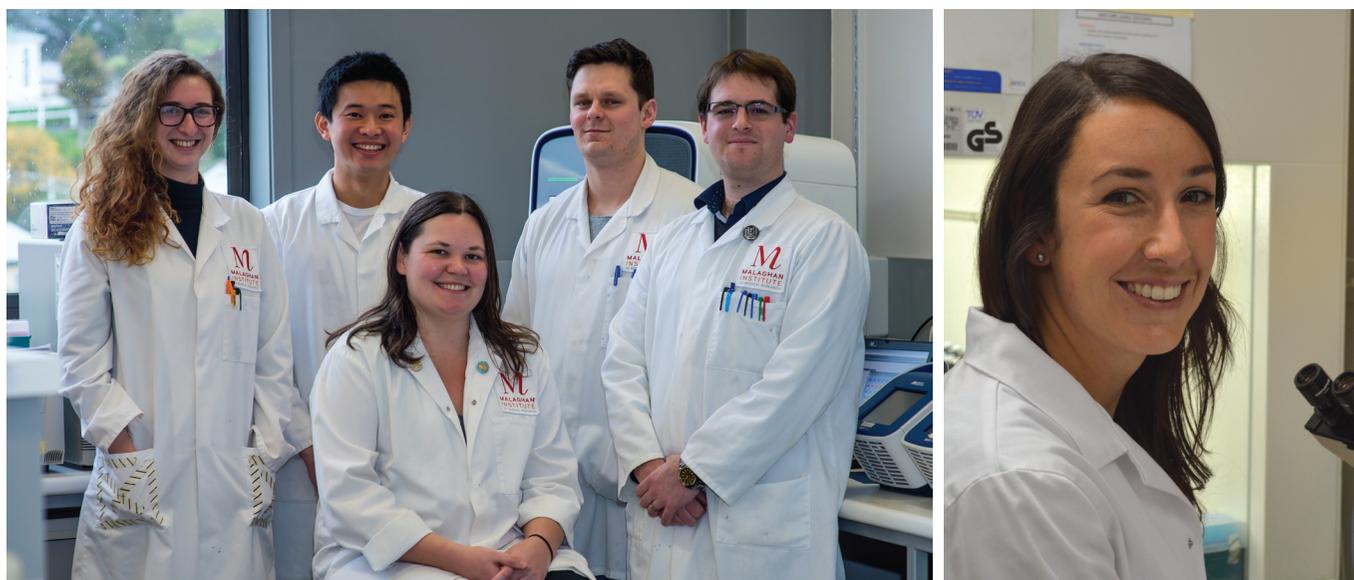


made this possible.

I thank you all for your support and your commitment, and wish you a happy and safe summer.

Professor Graham Le Gros

Malaghan students ready for international experience



Left photo: Amy Shepherd, Sotaro Ochiai, Catherine Plunkett, Cameron Field, Ryan Kyle. Right photo: Alana Cameron.

Alana Cameron is Professor Mike Berridge's tenth PhD student. She came here as a summer student six years ago, and has recently handed in her thesis investigating the immunological effects of highly targeted anti-cancer drugs and the combination of these drugs with a melanoma vaccine. All will change when she – and four other PhD students leave us over the coming months to take up post-doctoral positions overseas.

Alanna, Cameron Field and Ryan Kyle will relocate to The Max Planck Institute of Immunobiology and Epigenetics, in Freiburg, Germany. Alanna will be working with Professor Edward Pearce on an immunometabolism project. Cameron, who has been working in Associate Professor Ian Herman's Vaccine Therapy Programme has recently submitted his PhD thesis on improving vaccine immunotherapy with checkpoint blockade for aggressive brain tumours, and will soon be working with Dr Erika Pearce as part of her Immunometabolism Department. There he hopes to investigate how immune cells maintain their bioenergetic needs when they are within the brain which is a highly metabolic organ in its own right.

Ryan, who achieved an unprecedented milestone of second authorship in a 2013 *Nature Immunology* paper on the mechanisms that underlie allergic disease, hopes to continue researching how the immune system works and in keeping with the saying in science, 'publish or perish'.

Sotaro Ochiai will be an hour away on the autobahn in

Basel, Switzerland where his PhD supervisors Professors Graham Le Gros and Franca Ronchese lived immediately before their return to New Zealand in 1994. Sotaro has been studying dendritic cells – the so called sentinels of the immune system – and will study the developmental origins of these allergy-inducing dendritic cells.

Catherine Plunkett from Dr Liz Forbes-Blom's team has been investigating the development of our gut microbiota and the cross-talk with the immune system from early life, and has just secured a job with the highly regarded Dr Cathryn Nagler of the University of Chicago.

Amy Shepherd has just left us to begin her PhD at the University of Melbourne in Neuroscience. During the last two years she has been researching both colorectal cancer and intestinal parasites, under the instruction of Professors Franca Ronchese and Graham Le Gros. While it would appear she is taking a new direction she says she ultimately plans to combine some of the parasitology, microbial research and immunology she's learnt here with the cognitive-behavioural neuroscience techniques to glean a better understanding of how the brain and behaviour can be affected by the body as a whole.

We farewell this group of talented people from the Malaghan Institute and New Zealand, knowing that they leave an internationally recognised medical research community and look forward to their return, or international collaboration with them.

Coming back to make a difference

Dr Liz Forbes-Blom, born and bred in Gisborne, leads the Gut Immunology team at the Malaghan Institute. She credits her journey from schoolgirl in Gisborne to leading researcher in this highly promising area of immunology to the support of many people, but one of the most important factors she says are the Kiwi scientists who made it possible to have an international career, here in New Zealand.

"You don't have to go back too many years to see the default position for scientists with PhDs was to leave New Zealand and not come back. There were few career pathways and if you had ambitions to be world-class it meant you needed to be at world-class facilities in the Northern Hemisphere. Brilliant discoveries would be made by a Kiwi and some other country would reap the rewards. But that has changed over the last 10 to 20 years and I owe a debt to my older colleagues, and the wise heads that supported them, as the New Zealand-led medical research community is now internationally recognised."

In the final year of her PhD study Liz was awarded a prestigious Fulbright Scholarship to undertake research at the Cincinnati Children's Hospital Medical Center in the USA. She came back to New Zealand in 2007 to take up a postdoctoral fellowship position with the Malaghan Institute.

"I knew I was coming back to a pretty special place because the Malaghan Institute had a vision. When Professor Mike Berridge returned to New Zealand in the mid-1970s researchers were still applying for funds from Britain to investigate our own health here. He, Professor Graham Le Gros, and others are pillars of our medical research community who had a vision. Sir Paul Callaghan wanted New Zealand to be a place where talent wants to live."

"I see in my younger students a confidence and expectation that we will make breakthroughs here and research has the potential to translate into new therapies or treatments. It is an exciting time in immunology. We have the backing and the interest from so many people to put New Zealand on the map with Gut Immunology. The adult gut has 70 percent of all the body's immune cells and constantly sorts out what is friend or foe, but it is a hugely under-researched field. I can only guess where we will be in 20 years' time. Each student expo or open day we have brings twice as many people to our door and in another generation I expect this will have only increased.



Dr Liz Forbes-Blom

There will be school kids from Northland to Stewart Island – and Gisborne today, who will achieve who-knows-what for New Zealand. It's wonderful to think of the growing momentum that has come from a few scientists and supporters who shared this vision."

Run for Research 2016



Join us in the Run for Research at the Wellington or Auckland Round the Bays in February and March 2016. With events suitable for everyone it can be fun for all the family, or a challenge for those looking to push themselves – anyone can take part!

You can make your run matter by helping raise over

\$50,000 to support our research into diseases affecting our friends, families and community.

New treatments and cures can only happen with the support of the community; people who want to create a brighter future for the health of New Zealanders.

Register now and start fundraising:

Please note that registration for the event is a separate process to setting up your Run for Research fundraising page.

1. Register for the Auckland or Wellington Round the Bays
2. Go to supportourresearch.co.nz/event/runforresearch to create your own page and start fundraising today.

Can't compete?

You can still support our participants by making an online donation to the Malaghan Institute Staff Team page or ask someone you know to enter.

Looking for a health and wellbeing initiative at work? Compete against Trade Me, EQC, the French Embassy or the Wellington Chamber of Commerce and see who can run the most kilometres or raise the most money to support better treatments for Kiwis.

We hope you can join us. If you have any questions contact: Niall Mackay on 04 499 6914 ext 821 or nmackay@malaghan.org.nz

Community Support

We are continually amazed at the generous support of our community, particularly through the work of clubs such as Rotary and Lions. Their acts of kindness have marvellous results nationwide and internationally.

Over the past 12 months we have strengthened relationships with these community groups through hosting meetings, offering tours of the Institute, or scientists visiting clubs to speak. We have been delighted

to get to know these clubs better as we share a common goal to make a difference to New Zealand. Many of these clubs have supported us for over 30 years.

If your community group would like to host your meeting at the Institute followed by a talk and tour with a scientist, please get in touch with Shannon Eydt on 04 499 6914 ext 895 or seydt@malaghan.org.nz

News under the microscope

Wellington Chamber of Commerce

The Institute is delighted to join the Wellington Chamber of Commerce and strengthen our relationships with the local business community. We are looking forward to speaking to their members about our economic role in the community at their breakfast meeting in December, and are grateful for their support in the 2016 Run for Research.

ICAP Global Charity Day

We are thrilled to announce that we have been selected as the New Zealand recipient of the 23rd ICAP Global Charity Day being held on Wednesday 9th December 2015. All revenues and commissions from each trading office across the globe are given away to selected charities to assist them in their operations. For further information:



www.icapcharityday.co.nz

Recent grants (August 2015 – September 2015)

We would like to acknowledge the following Trusts and Foundations for their recent support:

- Rex & Betty Coker Foundation
- Community Post
- Infinity Foundation Limited
- Lions Club of Island Bay
- SE Leuchars Family Trust
- NZ Lottery Grants Board
- FH Muter Charitable Trust
- EM Pharazyn Charitable Trust
- Rotary Club Hutt Valley
- The Lion Foundation

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Card number Expiry /

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Cheque – Payable to the Malaghan Institute of Medical Research

Please return to PO Box 7060, Wellington, 6242

Online – www.malaghan.org.nz/support-our-research/donate

Electronic Transfer – Bank Account 06 0507 0052635 30

Please call to inform us of your donation so we can send your tax receipt. Donations over \$5 are eligible for a tax refund of up to 33%.

Or call 0800 MALAGHAN (0800 625 244) to make a donation over the phone



Research is our journey. Cure is our destination.