



Celebrating the donation in 1967. From left: Dr G. MacLean, Mr Len Malaghan, Mr B.R. Law (Chairman Wellington Medical Research Foundation), Mrs Ann Malaghan, Sir Charles Burns (Chairman Wellington Hospital, who officially opened the Institute).

We've only just begun

By Graham Malaghan, Chairman

My father, Len Malaghan, was diagnosed with Hodgkin's disease in 1962. Len's treatment exposed him to the benefits of new drugs as well as the dedication and commitment of the cancer specialists. This experience was formative in demonstrating the benefits of undertaking research in New Zealand, and Len decided to make a difference.

In 1966 the Wellington division of the Cancer Society and the Wellington Medical Research Foundation established a fund for medical research. Len and my mother Ann made a donation of General Foods Corporation (N.Z.) Limited shares worth \$200,000 to the Institute the following year. On Christmas Day 1967, my father died.

By the mid-1980s, the shares had grown significantly in value. In 1984 and 1985, Ann made further gifts for research equipment that enabled the Institute to progress.

My mother and our family were approached in 1986 to endorse changing the name of the Wellington Institute of Cancer and Medical Research to the Malaghan Institute of Medical Research. We were honoured and delighted to agree.

It has been a pleasure to see the Institute flourish since its beginnings 50 years ago, the name change 30 years ago, the arrival of Drs Graham Le Gros and Franca Ronchese in 1994 and since I assumed the chair in 1990. It is now the country's leading independent medical research organisation, focussed on finding cures for cancer, asthma, allergy and infectious diseases.

Our journey is just beginning. I would like to heartily thank everyone who has been involved in the first 50 years. We stand on their shoulders as we move into the next 50.

OUR HISTORY

50 years of medical research

OUR PEOPLE

Telling the defining stories of our past

OUR COMMUNITY

You help us make a difference

A crash, a rescue and a new start

By John Beattie, trustee and 50th Anniversary chair.

Virtually overnight, the 1987 share market crash brought the Malaghan Institute to the verge of insolvency as the returns on its investments were being relied on to fund the ongoing research. Without immediate support, the Institute would have been required to cease its research activities.

Tom Collins, an original trustee and former chairman, was the father of P.D. (now Sir Paul) Collins who was chief executive of Brierley Investments (BIL) at that time. BIL had survived the crash and was able to continue its operations in what were very challenging times for many other businesses in New Zealand.

Paul Collins asked me to have a look at the help required and report back. I contacted Graham Malaghan and together with Alan Harris, the new chairman, we constructed a rescue package. It was designed to financially underpin the Institute and to widen its support in the community, thereby preventing a recurrence of the 1987 events. (Sylvia Bennett also created the Friends of the Malaghan Institute about the same time.)

BIL agreed to the rescue package and committed \$100,000 per year for the next five years, which eventually totalled beyond \$1.3 million over 15 years. Graham Malaghan, his brother Neil and his sister Margaret made equally substantial commitments and invested huge quantities of time and energy to resuscitate the Institute over that period.

Graham became the chairman in 1990 and remains so today. Margaret and Neil became early pillars of the Auckland Friends. Later Matthew Malaghan, grandson of Len and Ann and son of Graham and Dale, became involved in the Auckland Friends and



Paul Collins and his father Tom.

later a trustee. Three generations of tireless generosity.

Other long-term supporters must be acknowledged and I thank the Wellington Medical Research Foundation, the Wellington Division of the Cancer Society, Victoria University of Wellington, the University of Otago, the Health Research Council, New Zealand gaming trusts and the Ministry of Business, Innovation and Employment for our critical multi-year funding.

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From the Director



In this special Golden Anniversary edition of Scope, we welcome guest contributions from our Chairman Graham Malaghan, Trust Board member John Beattie and long-time staff member Professor Mike Berridge. These three people know the Malaghan Institute well, have given us their time, their talent and their energy, and represent the collective good at our disposal. It is thanks to them and to a great number of others that the institute is what it is today.

Graham Le Gros
Prof Graham Le Gros

Our history of innovation and discovery

74 - 79



First director
Prof William Stehbens is appointed as WCMRI director. The Institute officially opens on 26 July 1979 in rented premises at the Wellington School of Medicine.

66

Wellington Cancer Medical Research Institute Trust (WCMRI) is established.

78 - 94

Atherosclerosis

Significant new knowledge about the causes of plaques (that harden and narrow arteries) is generated.

Blood cell formation

A breakthrough discovery that the hormone erythropoietin promotes the production of platelets in blood is made.

86



Malaghan Institute
The Institute is renamed the Malaghan Institute of Medical Research to recognise the generous support of Ann and Len Malaghan (pictured).

98

94

The legacy of Friends

Professor Graham Le Gros recently said, "Money drives research discoveries. It is increasingly difficult to find enough funding each year to ensure the Institute's scientists can continue their world leading research towards curing some of the world's worst conditions".

Recognising this financial challenge highlights the need for widespread support. It also recognises the integral

part played by the Friends of the Malaghan in helping to achieve each year's financial target.

Friends have hosted many original, creative and fun events since they began in 1987. Dinners, cocktail parties, movie premieres, tennis parties, a love boat cruise, fashion shows, a Christmas fair, an Italian evening, an art exhibition, a jazz evening and many more!

Golf has also drawn many positive

and committed people and businesses together. Friends in Wellington, Auckland, Hawke's Bay (and in 2016 Taupō) have held charity tournaments since 1997 and raised \$1.7 million.

The heart of the Malaghan beats strongly in the provinces. There is always a need for friend-raising and networking, however, to share the work of the Institute, and the best advertising is word of mouth. Some

Friends stand out. These people give unlimited amounts of time to share the word that such a great cause deserves substantial financial support. They are a godsend.

Please consider becoming a Friend if you are not already – it is a very positive way to support our research and help make a difference for future generations.

The Malaghan Friends group established in Wellington in 1987. From left: Julie O'Connor, Faith Taylor, Sylvia Bennett, Sharon Giles, Carol Zame.



Non-Hodgkin's lymphoma

A Phase I clinical trial of a cancer vaccine that uses the body's own dendritic cells and tumour tissue is begun. The trial outcome supports further research in immunotherapy for cancer treatment.



Immunology and asthma
The appointment of Prof Graham Le Gros as director leads to new research initiatives.

00

TB vaccine and allergic asthma
Certain types of bacterial lung infections (such as TB) are found to alleviate the symptoms of allergic asthma in experimental models.

04

Phase III melanoma clinical trial

A Phase III trial with Wellington Hospital Blood & Cancer Centre and Queensland Institute of Medical Research is carried out.



New building opened
The Institute relocates to a purpose-built facility on Victoria University's Kelburn campus.

06

Medsafe approval

The Institute is the first GMP (good manufacturing practice) laboratory in New Zealand to gain approval to manufacture cancer vaccines using human cells.

05

MS discovery

A bacterial toxin is found to be useful in treating the symptoms of MS in a disease model.

07



Arthritis drugs

A new drug discovery assay is used to screen New Zealand's land and marine plants and organisms for anti-inflammatory activity.

08 - 13

Phase I brain cancer trial

A clinical trial tests the feasibility and safety of using dendritic cell vaccines in combination with chemotherapy for patients with recurrent glioblastoma multiforme (a brain cancer). The trial is a collaboration with Wellington Hospital.



Leukaemia clinical study

Chronic lymphocytic leukaemia is identified as a potential candidate for the vaccine-based immunotherapy developed at the Institute.

08 - 11

The early years

Professor Mike Berridge reflects on his early years at the Wellington Cancer and Medical Research Institute (now the Malaghan Institute) 40 years ago.

I was nearing the end of a contract at the National Institute of Medical Research in London in 1975, when I was alerted to an advertisement in the scientific journal *Nature*. The Wellington Medical Research Foundation was seeking a Malaghan Research Fellow.

I didn't get around to applying. A week or two after the closing date, I received a phone call asking me whether I intended to apply. Obviously this repatriation opportunity wasn't hotly contested and was up for grabs if I wanted it. I submitted a rather brief application on red blood cell development and was offered the position for three years.

Setting up a research project in the hospital's rickety rooftop laboratory was no mean feat. The research culture and the temperature in winter were both close to zero! The hall between laboratories became a river when it rained, and guinea pigs and mice for clinical tests were housed just a couple of rooms along from my lab.

I was eventually offered additional

laboratory space in the chemistry department at Victoria University. There I joined a supportive research peer group of biochemists, whose support continues to this day.

Professor Bill Stehbens, the first director of the now Malaghan Institute, invited me into his office in 1978. He told me bluntly that I was to become part of the new institute, alongside his own atherosclerosis research programme. Soon after that, I left for a sabbatical at Purdue University and learned how to make monoclonal antibodies. This revolutionised the cell marker studies that underpin flow cytometry, which remains one of our cutting-edge technologies.

The first flow cytometer was purchased in 1980 when Ann Malaghan donated \$100,000 and the balance



Dr Mike Berridge familiarises himself with the FACS 420 cell sorter, soon after it was installed in 1985.

was gathered up from Hospital Board sources. This was only the second flow cytometer in New Zealand and we used 'borrowed' software from Christchurch for its operation.

It is interesting to recall Stehbens' strongly held view that hardening of the arteries resulted from physical fatigue and not from cholesterol or saturated fatty acids. He took on the world in the 1970s, including the powerful American nutrition lobby. In the last decade his unpopular views have been largely vindicated.

09

Green chemistry
A less toxic chemical process is developed for making a class of compounds used in medical therapies.

10

Early detection of gout

A clinical study of gouty arthritis identifies markers of disease susceptibility.

Hookworm vaccine

A pivotal discovery is made that could lead to a vaccine against hookworm. Hookworm infects one billion people worldwide.



11 - present

Gouty arthritis

Monocytes (a type of white blood cell) are shown to exacerbate rather than reduce inflammation during an acute gout attack, contrary to accepted beliefs.

13

Immune cell discovery

A unique type of skin immune cell is identified, which could explain the cause of skin allergy. This discovery is a step towards creating a vaccine for allergies.

Cancer immunotherapy

This technology is named 'worldwide scientific breakthrough of the year' by the journal *Science*.

13 - 15

Melanoma vaccine clinical trial

A Phase I trial assesses the safety, feasibility and efficacy of a new melanoma vaccine. The vaccine includes a novel immune-boosting adjuvant (chemical additive).

15

Phase II melanoma vaccine trial

A Phase II clinical trial is begun after the Phase I trial is completed.

Avalia Immunotherapies

This company is formed to progress the synthetic cancer vaccine technology developed in collaboration with the Ferrier Research Institute.



14

Asthma vaccine

A concept for a new type of asthma vaccine is found to be effective in an animal model.

16

Flu vaccine and the microbiome

The relationship between a person's gut microbiome community and their response to the influenza vaccine is studied for the first time.

50th Anniversary

Events held to acknowledge 50 years of community support for the Malaghan Institute's research.



Ultra running for research

Our latest runners for research took on Wellington Urban Ultra (WUU2K) a punishing 42 or 60 km circular trail run around Wellington's hills.



Celebrating at the finish line. From left: Men's 60 km race winner Tim Sutton, Gareth Thomas and Stu Milne, who took 4th place. Credit: Run Wellington.

The event is the brainchild of Gareth Thomas and his running buddy Stu Milne, and was held on 17 July for the first time.

"I was kind of dubious about who would want to come to Wellington or enter an ultramarathon event in the middle of winter. But the word got out and the turnout was really positive, with 142 people entering. It was beautiful to see so much support. I was really happy with how it went – I was overwhelmed actually."

Gareth is a great supporter and advocate for the cancer research programme at the Malaghan Institute. He ran the 100 km Tarawera Ultramarathon in 2014 in support of friends who were battling cancer at the time.

"I'm glad we managed to raise some funds for the Malaghan Institute. It's a small thing we can do to support dedicated scientists and their research into cancer and other diseases that affect our friends, families and communities. Thanks to the runners who helped out."

SUPPORT OUR RESEARCH

Visit www.malaghan.org.nz or call the community fundraising team on **0800 625 244** to find out how you can support us to make an impact on the health and wellbeing of New Zealanders.

Lions lead the way

The Island Bay Lions Club has given us incredible support for 25 years, for which we are truly grateful. Recently they donated the proceeds of their annual book fair to the Institute. Thank you. The foresight and generosity of people like you is helping to increase the pace of medical research in New Zealand.



Anne Jenkin, President of the Island Bay Lions Club.

Continued from page 2

Some contributors have made extraordinary gestures in recent times. These include Wade Thompson and the Thompson Family Foundation, the Hugh Green Foundation, Infinity Foundation Limited, the Dr Marjorie Barclay Trust, as well as the Taylor, Johnson, Patterson and Wallace families.

Final acknowledgements must go to the Institute's world class team of science leaders, staff and students. Their efforts have made the latter years of the first 50 the most significant in terms of discovery. I look forward with anticipation to seeing where the next 50 years of our journey will take us.

News under the microscope

The Colour Purpose - Wellington on a Plate

Join us for a six course kaleidoscopic dinner on Friday 19 August, hosted by CQ Hotels Wellington. Food will be sourced from the Wellington region and each colourful course matched with superb Martinborough vineyard wines. Guest speakers include Prof. Graham Le Gros and Dr Elizabeth Forbes-Blom, with proceeds going to the Malaghan Institute. Dress up in black tie or a colour of your choice! Tickets via Ticketek.



Waikanae Lions Super Garden Trail

Garden lovers are invited to a spring garden trail, being held for the second time this year. The Waikanae Lions host a garden trail in late January each year and have now added a spring event, to be held on 12 & 13 November 2016. The Malaghan Institute is one of the recipients for donations this year.



Recent grants (March – June 2016)

Thank you to the following Trusts and Foundations who have supported the Malaghan Institute:

BEA Trust
 Carol Tse (No 2) Family Trust
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 Rex & Betty Coker Foundation
 The Dr Marjorie Barclay Trust

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YES! I'D LIKE TO ACCELERATE THE PACE OF RESEARCH.

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I would like information about making automatic gifts to the Malaghan Institute.

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Please return to PO Box 7060, Wellington, 6242

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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.