Auckland Medical Research Foundation
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SUPPORTING MEDICAL RESEARCH FOR OVER *60 years*

AMRF donors send emerging cancer researcher to Harvard for artificial intelligence research

The chance for Master's degree studies at Harvard was almost lost to physician/scientist Chang Ho Yoon, when the generosity of donors made it a reality.

Dr Chang Ho Yoon has spent over five years in post-graduate training in a wide range of medical disciplines. In each of these disciplines, he sees incredible potential to bring cutting-edge technology like artificial intelligence (AI) to assist more 'intelligently' in medical research and patient management.

He says, "New Zealand is in a promising and internationally enviable setting, housing an abundant yet manageable population with a National Health Index and centrally-accessible health information. New Zealand can avail itself of this opportunity only if more human capital is nurtured to harness this trove of health data."

Dr Chang Ho Yoon

Completing the one-year accelerated Master's in biomedical informatics will give Chang Ho one of the tools he needs to create artificial intelligence algorithms that can rapidly and accurately identify clinical patterns from large datasets. This will assist in every step of cancer treatment, from improving prognosis to predicting responses to therapy.

And the chance was almost completely lost.

"My husband Gavin and I saw first-hand the benefits of overseas training for New Zealand's medical specialists and the donation we made to the AMRF for a fellowship was a small way we could ensure more New Zealanders benefit from those skills," says Ann Kellaway of the award she and her husband established in 1997.

Since 2000, New Zealand researchers in immunology, autism, cancer drug development and more have benefitted from the generosity and foresight of the Kellaways.

> "I want future generations to be able to get the best health care possible, and if it means sending researchers away to learn about it, bring it back home, and share it here, then that's what we should do. We should each be doing all we can to ensure it's possible," Ann says.

Mrs Ann Kellaway at the 2018 AMRF Research Awards

Chang Ho's expenses for the year are only partially met by the Kellaway award. With the further support of the Fulbright Foundation, which aims for the "vision of a peaceful, more prosperous world", Chang Ho can live and study for a year in a significant hub of medical research in the USA.

"The potential for my learning and development in Boston's exciting academic and cultural canvas is incalculable. I do not believe that there is a better place for an aspiring researcher to mature. Having benefited so much from New Zealand's magnanimity to date, it is my turn to give back."

Awards for bright sparks open up opportunities for international collaboration

Every year, the AMRF provides travel award prizes for university and DHB research presentation events that showcase postgraduate, postdoctoral and emerging researchers. The travel prizes allow winners to present their research internationally and forge strong connections to enhance their career pathway.

Recent prizes at two events held by the University of Auckland 's Faculty of Medical and Health Sciences – the 2nd Annual Summit of the Postdoctoral Society and the 13th HealtheX Student Research celebration – reflect the outstanding standard of research that has been made possible by donors to the AMRF.

Dr Caroline Walker, winner of the Summit Postdoctoral Best Oral Presentation will use her prize to travel to the USA and join with 6,000 experts from around the world at the biggest international meeting in genetics, the American Society for Human Genetics.

Dr Walker, from the Centre for Longitudinal Research – He Ara ki Mua at the University of Auckland, and her award-winning work based on the *Growing Up in New Zealand* study were recently featured in the New Zealand Herald. She described how Pacific children, along with girls and babies born to older mothers might potentially be able to live longer, thanks to a unique genetic advantage.

"This conference is an excellent international forum for presenting my research on biological ageing in New Zealand children."

Autism researcher, Molly Abraham is a Doctoral student funded by an AMRF Scholarship and is working in the Department of Physiology. Her work on autism spectrum disorder and the role the molecule, hyaluron, plays in brain development landed her first prize in the Best Poster Presentation at HealtheX 2019.

With her travel award Molly will attend the Federation of European Neuroscience conference in Glasgow in 2020. With more than 7,000 attendees, it is Europe's largest international neuroscience meeting, covering all domains in modern brain research.

Research into ageing saw Liggins Institute researcher Farha Ramzan win the Outstanding Emerging Researcher award at last year's HealtheX and Farha used her prize to undertake a course in "High-Throughput Biology: From Sequence to Networks" at the prestigious Cold Spring Harbour Laboratory in New York.

The course provided Farha with skills for analysis of her RNA sequencing data and she published several studies. One of the studies showed that high protein diets impact metabolic health and body composition in the elderly. This work was featured on the front cover of the journal of Molecular Nutrition and Food Research. Another study identified molecules circulating in the blood that can help predict metabolic syndrome, a complex, whole-body disorder of fat and sugar metabolism. Both can cause immune and cardiovascular complications.

She says, "The skills I gained overseas enhanced the analysis of my research. The connections I made there will be very important for my future research career."

Your family trust or estate can support a named scholarship or project. Ask us how.

Medical Research: reasons why New Zealanders should support it

New Zealanders value and want more medical research. But why aren't they supporting it with donations? Here are some of the reasons from the 2019 New Zealanders for Health Research Opinion Poll* and our answers.

Reasons New Zealanders don't donate to support medical research

70% SAY **they don't how the money will be spent**

You and other generous donors to AMRF love the fact that 100% of your donation is applied directly to medical research. Every single cent will fund research across the spectrum of medical and health conditions because all of AMRF's overheads and administration costs are covered by a generous benefactor.

61% SAY **they haven't been asked**

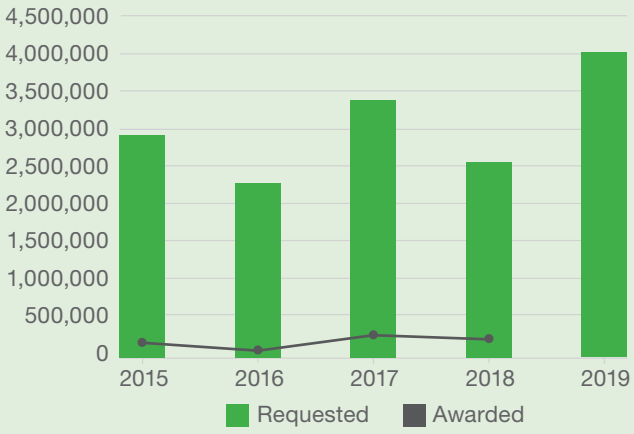
We're sorry we haven't asked you directly, but please, if you'd like, it's easy to include AMRF after you've taken care of your family when you make or revise your will. Ring us for information or call your solicitor.

Prefer to give in other ways? We'll help you find the way to donate that best supports what's most important to you. Just ask us – there are lots of donation options.

35% SAY **health research is already well supported**

You, our donors, provide incredible support, but we still can't fund everyone who needs it. The early and emerging career stage is critical for researchers, because it's when they're most productive. Requests for funding from AMRF heavily outstrip what we can award. This graph shows the difference in the last few years.

Fellowship requests and awards



*Source: New Zealanders for Health Research, New Zealand Speaks 2019 Roy Morgan NZHR Opinion Poll, www.nz4healthresearch.org.nz

Your impact so far in 2019

23 Travel Awards
$60,038

13 Research Projects
$1,106,294

2 Fellowships
$144,360

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At the Heart of Medical Research

Our free public lectures continue to be a great way to find out for yourself about the latest in medical research and how it is helping to change lives.

On October 15, heart health was in the spotlight when A/Prof Johanna Montgomery and Prof Julian Paton presented their heart research. Topics discussed ranged from understanding the impact of neurons, a type of brain cell, on the heart and cardiovascular system, to helping prevent diseases and disorders like stroke, high blood pressure and even dementia.

‘ “Little brains” are brain cells on the heart’s surface. Understanding how they work may lead to reducing prevalence of stroke and dementia,’ says A/Prof Montgomery.

Prof Paton shared that one in three people have high blood pressure, which can cause stroke, kidney and heart failure. He wants to know, “Why do people become hypertensive and what research is key to help stop it?”

Watch video of this event on our website.

If you weren’t able to attend on October 15 and are interested in learning more, please contact us events@medicalresearch.org.nz or visit our website for video recordings of this lecture and many more.

A/Prof Johanna Montgomery

Prof Julian Paton

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Do you enjoy our free public events? What topics would you like to hear in 2020? Contact us anytime!

A specific medical research topic:

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Clinical research focusing on:

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10/19