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Hocken legacy





ach year during Orientation when I am speaking to students I highlight the relation between privilege, obligation and gratitude. For Otago students, privilege comes from the gift of education - a gift, that for many of them, will change their lives and lives of their children forever. That privilege also comes with a price tag and I remind students that the bulk of that price tag for domestic students is covered by the New Zealand taxpayers. I remind them that with the privilege of education comes the obligation to be grateful, to say thank you in multiple ways, to give back to the community that supported them, and to do great things with the gift they have been given.

In January this year, I found myself with the opportunity to practise what I preach. As you will read in this edition of the *Otago Magazine*, Dick and Jillian Jardine have gifted their amazing property on the shores of Lake Wakatipu to the University of Otago. On January 10, the Chancellor and I had the privilege of attending a function in their home where the official announcement was made. I would like to express my sincere gratitude to the Jardines for their amazing generosity and I promise that we will do great things with their gift.

It turns out that many of the special things we have at Otago originally started with a gift – the Vice-Chancellor's Residence or the University Lodge where my husband Michael and I currently live was a gift from Annie Stevenson who gave her family home to the University of Otago on the proviso that the Vice-Chancellor always live there. We are the only university in New Zealand where the Vice-Chancellor has such a stately residence to reside in and host functions and visitors on behalf of the University.

Our Leading Thinkers Chairs and the two major equipment items that were provided through Leading Thinkers Initiative were also made possible by gifts from organisations and individuals - many of these donors are successful alumni or family members of alumni who got their start at Otago and who have expressed their gratitude by giving back to us. Each of these gifts has allowed us to do great things. And just before Christmas, we were gifted a series of stunning Paul Dibble sculptures from the Stewart Halls Residence Council. These graceful pieces of outdoor art will help us to maintain our position as one of the most beautiful campuses in the world.

Every one of these gifts and many, many more were generous and remarkable, but for me, two things make the Jardines' gift particularly generous and remarkable. Unlike many of our other gift-givers, the Jardines have no prior affiliation to the University. They have taken a major leap of faith by entrusting us with this spectacular property and we feel

extremely appreciative of the amazing opportunities that it will afford. As a University community, we share their vision that their lovely home will become a place where world-class scholars come to meet, to think, to discuss, to debate and to solve some of the world's most pressing problems.

The other thing that makes this gift particularly remarkable is that I know what this property means to the Jardines. The land has been in their family for generations. I also understand the vision and the blood, sweat and tears that it took to turn the bits and pieces of a smelly old woolshed into a magnificent piece of art that you can live in. The house and the property have been a labour of love and the University of Otago is incredibly grateful to be the beneficiary of that labour.

The American architect, Frank Lloyd Wright once said, "The mother of art is architecture. Without an architecture of our own we have no soul". I know how much of Dick and Jillian's souls have gone into Woolshed Bay. On behalf of the University of Otago, I promise that we will be faithful stewards of the property in perpetuity.

Professor Harlene Hayne Vice-Chancellor, University of Otago

Age CARE

facts

In 2001 those aged 65 and older comprised 11 per cent of New Zealand's population. By 2051 that's forecast to more than double to 24 per cent, some 1.22 million people.

The numbers of those aged 85 and older are expected to increase sixfold, from about 50,000 in 2001 to almost 300,000 in 2051.

The questions

Is screening for falls and frailty in general practice effective for identifying people at risk?

Do all older adults want to stay in their own homes and what is needed to make this possible?

How many choose to move to retirement villages and do we need more?

Who should decide how retirement villages are designed and staffed?

How do we train, pay fairly and support care workers, including family members?

How do we attract doctors and other health professionals to specialise in geriatrics?

Why do some people age better than others?

How do we start a conversation about providing dignity in death?

As people live longer and healthier lives the concept of old age needs to be redefined. Otago's Collaboration of Ageing Research Excellence (CARE) brings together local, national and international research expertise to help us plan better for the "Age of Ageing" and its implications for communities, health care and public policy.

he human body does not arrive with a user's manual giving instructions as to how to get the best out of it.

But we do know a lot about caring for it when it's new and maintaining it as we age, and we're getting better at fixing it when it goes wrong, even down to making and fitting replacement parts and providing social support.

So, in most of the developed world, we are living healthier and longer lives than ever. That's a plus for individuals, but presents society with a number of new challenges.

We have reached the "Age of Ageing", says Associate Professor Debra Waters. And although ageing populations now feature in the media and on government agendas, we still have much to learn.

Waters is Director of the University of Otago's new research theme CARE – Collaboration of Ageing Research Excellence – with five years' funding to study all aspects of ageing.

CARE grew from the establishment of the Network of Ageing Research at Otago University (NAROU), which joined the International Association of Gerontology and Geriatrics (IAGG) and the Global Ageing Research Network (GARN) in 2011 – and from Waters' role as the Director of Gerontology Research.

With initial funding from Health Research South at the University of Otago, Waters and colleagues rebranded the network to CARE. In its first year it grew from 25 researchers to 60, with local, national and international connections, leading to CARE earning research theme status and support in 2016.

Waters' says that without the excellent work of CARE's steering committee and advisory group, it would have taken much longer to get to this point.

What started as a network of people working loosely together has now united Otago's research talents across public health, policy, sociology and basic sciences with investigators from not only all the Otago campuses and Otago Polytechnic, but also universities in Auckland, Australia, the USA and Canada, and across Europe including France, the Netherlands and the UK.

Waters' service to multiple gerontology organisations has helped foster many long-term collaborations. She is currently vice-president of the New Zealand Association of Gerontology, and on the management team of the Ageing Well National Science Challenge led by Otago's Professor David Baxter.

Waters' own research strengths parallel CARE's main aims, particularly investigating ageing relating to physical health and the loss of skeletal muscle and function (sarcopenia) and interventions to reverse frailty.

Many people today are keeping healthier and living longer, and babies born today have the potential to live longer still. With fewer children being born, current and future populations will become increasingly skewed towards older people.

New Zealand records show that in 2001 those aged 65 and older comprised 11 per cent of the population. By 2051 that's forecast to more than double to 24 per cent, some 1.22 million people.

Similarly, the numbers of those aged 85 and older are expected to increase sixfold, from about 50,000 in 2001 to almost 300,000 in 2051.

"People are living healthier, longer lives and that's what CARE wants to see," says Waters, "but it means we are having to revisit our definitions for older people. We tended to define people over 65 as old, even using the pejorative term 'elderly' to refer to them. Now even the oldest old, those 85 and older, are challenging stereotypes and changing the way we think about ageing."

So is 60 the new 40? "That may be a stretch, but maybe 75 is the new 65. We're already working with the concept that people might not be considered older adults until 75 plus. Some recently funded research in New Zealand is using this definition, although this is not necessarily the case for those of Māori or Pacific Island descent, who tend to age younger. This is a disparity we would like to see change."

Another impending change that needs to be addressed is retirement. "With living longer and having fewer children, we are likely to be seeing people working past current retirement ages if they are to keep going both physically and financially."

Research shows that keeping busy is crucial to living the good life. "We need to stay active in retirement, whether we are still in paid work or not.

"Keeping physically and mentally fit and socially connected makes all the difference. It's important not just to keep active in body – you also need to keep your mind engaged for as long as you can.

"The University of the Third Age is a great concept for continuous learning throughout your life. And volunteerism is a fabulous thing – Age Concern survives because of it."

In the Otago/Southern region CARE has close connections with Age Concern

Otago, as well as many other age-service agencies including Otago Partners for Elders' Needs, Arthritis New Zealand, the Otago Pacific Trust, the Dunedin City Council and the Southern District Health Board. Other CARE members have similar connections in Canterbury, Christchurch, Wellington and the Auckland region.

Local collaborators and researchers are drawn from Otago's biomedical sciences, clinical practice, public and indigenous health, the social sciences, population and community health, rural health and health service providers.

With such a line-up of expertise and experience, are we likely to see CARE promoting top 10 tips for ageing gracefully? Is there a guide for older people to get older still? Waters says it's already happening.

"Age Concern already does a really nice job of that. And ACC is now talking about wellness in holistic terms. General practitioners, researchers and policy-makers are starting to work together on how to help support people to age well and live in their own homes independently for longer.

"Age Concern Otago's Steady As You Go falls prevention exercise programmes are run by peer leaders in local communities and are effective as well as very sociable. But you have to take exercise seriously. You can't just do a programme for 10 weeks and then stop and expect the benefits to stay with you. You have to make the effort to keep it going."

Fortunately, programmes such as Steady As You Go and Tai Chi have been very successful in retaining participants, with some classes running since 2003. "What keeps people coming back? The social connection. It's just one of the benefits of group physical exercises. Participants see the dramatic improvement in their function and want



"With living longer and having fewer children, we are likely to be seeing people working past current retirement ages if they are to keep going both physically and financially."

to maintain it. Classes are fun, social and keep the brain active. Even ACC appreciates that there are important social benefits as well as physical.

"Another element that is gaining attention is the importance of spirituality as we age. That's not a religious concept, but could be described as finding something that nurtures your soul, such as the peace some people find in a garden or in nature or in going for a walk, nurturing mental and emotional health. We are fortunate to have leading researchers in this area as part of the CARE steering committee and network."

Waters is discovering new challenges. As part of her investigations into body composition and physical function during ageing, she was involved with screening for pre-frail participants for a multicentered trial in regions around Auckland and in Invercargill.

"We were somewhat surprised to find it very hard to recruit subjects who are over the age of 75 and fit the inclusion criteria for pre-frailty. They wanted to be in the trials, but many were not frail enough."

Discussions with Waters' colleagues in France led to scrutiny of how questions about frailty were being asked, despite there being many validated questionnaires.

"Frailty research has been quite focused on a 'deficit model' that asks people what they are not capable of or how they have lost capacity. We wonder if we should have been asking what they were capable of. It's natural not to want to admit to being a bit frail, which has obvious implications for whether or not you can still live independently, so to get

honest answers, maybe we might need to ask different questions.

"We have been having many conversations about this because it could change the way a lot of ageing research is done.

"International co-operation helps us to see how research in one environment compares with others and what might be different. Research in rural Southland equates to rural elements in other parts of the world such as France, where there is an active outdoors culture. Urban research is more likely to equate to some big cities that were never built to encourage getting outdoors."

Finding the right topics to investigate is crucial. "We have to ask ourselves what are the most important questions. To do that we talk to stakeholders and community members to find out what matters to them. When they realise you want to hear what they have to say – you want to answer the questions they have – you get instant buy-in. It's an exciting time to be engaged with research that is a collaboration with older people, elder service providers and policy-makers.

"We're learning a lot about what we need to focus on in the next 10 years. There are going to be some huge questions that we have to deal with and understand better.

"Is screening for falls and frailty in general practice effective for identifying people at risk and for increasing referrals to appropriate intervention? Do all older adults want to stay in their own homes and what is needed to make this possible? How many choose to move to retirement villages and do we need more? Who should decide how retirement villages are designed and staffed? How do we train, pay fairly and support care workers, including family members? How do we attract doctors and other health professionals to specialise in geriatrics? Why do some people age better than others, and how do we start a conversation about providing dignity in death?

"These questions and many more cut across all cultures in multicultural New Zealand."

CARE's research is expected to bring significant benefit to New Zealand in understanding health and the health sector, public policy and local communities. CARE's international exposure is building the profile of gerontology at Otago, attracting researchers to New Zealand and students to Dunedin.

"What is so exciting is that the networks we started continue to expand and bring together not only researchers, but stakeholders and other organisations in the area of ageing," says Waters. "Our goal is to graduate to Centre of Research Excellence status, which would allow us to expand our knowledge and resources and attract more science collaborators and more stakeholder and community investments.

"We also want to future-proof by getting more students into gerontology. We need younger people because sooner or later we'll be joining the ageing population ourselves – and it's important to continue the positive energy and commitment of all those currently working in this area to help New Zealanders age well."

NIGEL ZEGA

The remarkable sharing of Woolshed Bay

Queenstown farmers Dick and Jillian Jardine have gifted their Woolshed Bay home and property to the University of Otago to be used as a research retreat.

ay "Otago" and "University" and the institution's iconic Clocktower building on the banks of the Leith springs to mind – but now, thanks to the generosity of a Queenstown farming family, it will also be linked with a spectacular high country homestead on the shores of Lake Wakatipu.

In late 2016, Remarkables Station owners Jillian and Dick Jardine gifted their four-hectare Woolshed Bay property to the University of Otago's Foundation Trust, including the old shearers' quarters and a magnificent Woolshed house.

The Woolshed house sits only metres from Lake Wakatipu and is surrounded by beautiful gardens, which have become a haven for native birds. With spectacular 180-degree lake and mountain views – from the Remarkables to Cecil Peak and beyond – the property has many features, including a productive olive grove and a miniature vineyard. It is situated in a microclimate which allows even cold-sensitive plants such as feijoas, lemons and limes to grow. A step from

the kitchen door is a large potager – abundant with berries, stone fruits, espaliered French pears, and overflowing with vegetables, herbs and flowers.

Adventure activities such as skydiving, windsurfing, rock climbing, biking, fishing and hiking all take place nearby on the station.

Since 1922 the Jardine family have farmed in the Wakatipu area, including the land of Kawarau Falls and Lochlinnie Stations. This was once a part of an extensive merino sheep run farmed by William Rees, an early European settler, Wakatipu explorer and surveyor who brought large-scale pastoralism to the area in the early 1860s. On Remarkables Station, the Jardines have farmed sheep, cattle and, more recently, deer.

Dick and Jillian Jardine took over Remarkables Station 32 years ago, living in the homestead on the eastern side of the station until the 1990s when they moved to Woolshed Bay. There they created a home from a collection of old huts and the shearers' quarters, before moving into the transformed and historic woolshed. During this time, the couple established the landscape which would attract native birds.

Reputedly used by Rees himself, this woolshed was an essential part of high-country farming life, big enough to hold about 800 woolly ewes. With no road and no Kawarau Bridge, the steamship *Earnslaw* linked the property to the outside world. While the steamer today ferries tourists around Lake Wakatipu, her cargo then included sheep, cattle and supplies. The boat would dock at the nearby jetty to transport wool from the station to Kingston and on to market – the jetty posts are still visible from the homestead.

In more recent years the old woolshed was also a place where shearers cooked and staff lived, and it became a temporary happy house for a Glenorchy family forced to leave their home by the 1999 historic flood of Wakatipu. The lake rose two metres, but the woolshed remained high and dry.

However, Jillian had a vision for the woolshed and employed a talented



draughtsman and creative builders who worked with her to make this vision a reality: by 2007 the old woolshed had become an extraordinary home.

The new house follows the footprint of the old shed, with some materials salvaged for re-use. Tin and shingle from the original roof now line the ceiling high above the foyer, featuring a suspended glass walkway above the art gallery. Old gratings have been repurposed into shutters and floors. Timbers still bear graffiti scribblings by rousies, and recycled jarrah beams and flooring were obtained from Perth. Local stones have been set in concrete and old telephone poles provide structure in the living room. Recycled metal is comfortably juxtaposed with modern steel and glass.

True to its origins, this beautiful homestead reflects enterprise, imagination and hard work. It is also a place where guests from all walks of life are made welcome, where the past has been preserved, but not frozen in time.

It is a comfortable and social place, with large spaces and secret corners, an ideal place to think and to share and to discuss – a very special place that the Jardines want to preserve.

"The Wakatipu has been very good to our family for several generations and this gift to the University of Otago is our way of acknowledging that," they explain. "The area is changing so quickly: we wanted to secure the future and integrity of the land and buildings."

The Jardines wanted Woolshed Bay to carry on its story, growing into its full potential. They have long admired the world-class research undertaken by the University of Otago, particularly in medical fields, and wanted to help the University fulfil its wider vision of producing research that benefits our country and the world. Thus, the idea of using Woolshed Bay as a research retreat was slowly born.

University of Otago Vice-Chancellor Professor Harlene Hayne describes the donation as "one of the most significant gifts Otago has received" and says the University is looking forward to working with the Jardine family to develop their vision for the property.

"Leading researchers could come from all over the world to spend a week or two together to debate, discuss and present data to solve the world's big problems. It will give them access to an extremely valuable, but intangible, commodity – time.

"Leaving the hubbub of your email, the phone, students and research laboratory for a place where you can literally get away from everything will provide an unprecedented opportunity for researchers to get the time they need to take the next step in their work."

Professor Hayne says Otago is very aware of the Jardines' "leap of faith" in entrusting care of the property to the University, which is even more remarkable as the Jardines are not alumni, but have always admired the work of the University. "The gift is very personal because it is a home they have

created with their own hands. Although it would have considerable value in commercial terms, the family's vision – which the University shares – is that the property be held in perpetuity.

"This illustrates their desire for stewardship and, as is the case with all our gifts, the University is absolutely committed to protecting both their vision for its use and the special nature of the property for many years to come," says the Vice-Chancellor.

University of Otago Chancellor Mr John Ward adds that the Jardines appreciate the University of Otago's commitment to conserving its heritage buildings.

"This is an extraordinary gesture and Otago feels very privileged to be charged with its future preservation, as well as making the most of the opportunities that prevail. We have received many positive comments about this gift: the response has been overwhelming."

While the homestead is "absolutely perfect" for use in the short-term, Mr Ward says there is scope for development as future needs are ascertained. "The University is continuing to explore several strategic opportunities for further involvement in the area and this wonderful gesture provides us with another catalyst."

The Jardines have donated another special part of Remarkables Station to the QEII Trust – the Jardine Boulder Field, gifted for community use to "protect its uniqueness". World-renowned, its bus-sized boulders, good access roads and dramatic surroundings have made it a popular tourism and rock-climbing destination.

Dick and Jillian will leave their Woolshed Bay home and property with pride and pleasure.



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Vice-Chancellor Professor Harlene Hayne







'Influenzial' career

A beach littered with dead birds provided a "eureka" moment for Otago alumnus Professor Robert Webster who, over the following decades, became a world authority on avian flu, its transmission and its implications for the future.

outh Otago, the Great Barrier Reef, the live bird markets of Hong Kong, and St Jude Children's Research Hospital in Memphis may all seem like completely unrelated places – until, that is, you align them with a long and illustrious career.

For Professor Robert Webster, his more than 60-year journey from being one of a family of 13 children on a farm near Balclutha to being an international authority in avian influenza has been full of twists and turns.

Having initially followed his older brother into studying Chemistry at the University of Otago, Webster's career path took its first unexpected turn when Molly Marples, wife of Zoology Professor Marples, spoke to the chemistry club about the new Department of Microbiology she was heading up.

"She talked about microbiology – micro-organisms, bacteria, viruses, yeast – and captured me, as it were, to the idea of putting together chemistry, disease and animals. So I moved my focus to microbiology."

Armed with a BSc in Microbiology, Webster headed to the Wallaceville Animal Research Centre where, as New Zealand's first veterinary virologist, he began to isolate viruses in many local animals and also completed a master's degree, researching the ORF poxviruses in sheep.

The opportunity to go to Canberra and work with poxvirus authority Professor Frank Fenner in a new School of Microbiology at the Australian National University appeared too good to pass up. However, his career path was about to take another twist.

"I can remember sitting in his office the day I arrived and he said: 'I'm going to get you to work on influenza'. It was a great disappointment," the 84-year-old Webster adds with a wry smile. "But what did I do for the rest of my life? I worked on influenza."

Webster embraced his new direction, going on to publish more than 600 original articles and reviews on influenza viruses. He was made a Fellow of both the Royal Society of New Zealand and the Royal Society of London, and a member of the US National Academy of Sciences. He has also given his name

to the Webster Centre for Infectious Diseases and the Webster Family Chair in Viral Pathogenesis at Otago.

That unexpected new direction also produced a lifelong collaboration with leading Australian biochemist Graeme Layer.

A beach walk provided a "eureka" moment when they found the shore littered with dead mutton birds and wondered if they had died from avian flu.

"We'd just had the 1957 Asian flu pandemic and the big question was where did these pandemics come from?

"There were two possibilities. Either the virus simply went through massive mutations or it came from another source. Our idea was that it probably did come from another source because there were influenza viruses showing up in pigs and chickens and ducks around the world, but no one had really connected them."

World Health Organization (WHO) funding allowed them to go to the Great Barrier Reef where they identified healthy seabirds carrying antibodies related to the pandemic strain.

"Many animals, such as sheep, don't get influenza, so what are the genes that prevent them from getting it? Could you put those genes into the pig, into the chicken and create genetic resistance? That will happen."

"It showed two important things: flu was present in perfectly healthy seabirds and, secondly, you got the virus out of the poop, not the respiratory tract. We proposed that this was the source of the influenza viruses that went into pigs and humans."

Webster moved to Memphis, Tennessee, to continue his work, confirming that aquatic birds are the reservoirs of influenza. By the early 1990s interest in the flu was waning – that is until six young people in China died in 1996 and the world suddenly took notice.

Detective work by a team recruited urgently by Webster identified ducks and

other birds in Hong Kong's live markets as a source. Authorities closed the markets, stopping its spread there, but it survived in ducks in China and remains a problem today.

The virus, now known as H5N1 (bird flu), has become endemic in South-East Asia, Indonesia, Vietnam and China and has spread to Europe.

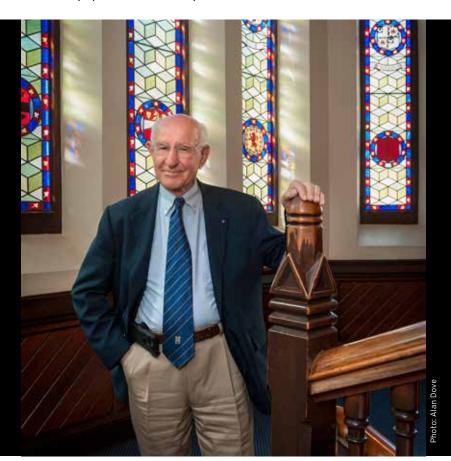
Generous funding from the United States National Institutes of Health (NIH) enabled the formation of the Centre of Excellence for Influenza Research for Hong Kong and Memphis (St Jude Children's Research Hospital), headed initially by Webster. Eventually NIH developed six centres for research, each with a multi-million dollar budget.

Their work has proved vital in the development of more effective vaccines. They have also served as the WHO Collaborating Center for Studies on the Ecology of Influenza in Animals and Birds – providing information on animal viruses that pose a threat to humans.

Although Professor Webster has retired from his role, he recruited Dr Richard Webby, another Otago graduate, who now heads up the programme of excellence for influenza research.

"The question with bird flu is would these viruses ever have the ability to transmit human to human? If they transmit from chickens to humans they kill 60 per cent."

Professor Robert Webster



What would it take for a bird flu like H5N1 to not only jump to humans, but also be transmitted human to human?

Although the work of Webster and others in the field means influenza is far better understood, that troubling question remains.

Epidemics such as the Spanish flu of 1918, which is now known to have had avian origins, provide a deadly example of what could happen.

DNA segments from bodies buried in the Arctic permafrost enabled the sequencing of the 1918 virus and scientists have remade it in high containment facilities.

Although a controversial step, it is one Webster is happy to defend because it helps them understand crucial things about the virus.

"Why were they so virulent? Why were they so lethal? To understand that we need to understand the mechanism. If you want to have drugs and strategies to control it you have to have access to these bad viruses," he says.

"The question with bird flu is would these viruses ever have the ability to transmit human to human? If they transmit from chickens to humans they kill 60 per cent."

Research has now established that if three specific molecular changes occur in the virus it can transmit from one ferret to another. All three changes have been found in nature, but never together.

Webster says "all hell broke loose" when the researchers who did the work tried to publish. The National Science Advisory Board for Biosecurity (NSABB), the group concerned with bioterrorism, said it was too dangerous.

"Eventually it was decided it was so sophisticated that enviroterrorists wouldn't be able to do it," he says.

"They published, but strict rules were put into place for scientists working with these organisms."

However, in 2015 several accidents – including The Centres for Disease Control mistakenly sending H5N1 to a lab and the army sending out live anthrax – resulted in the US Congress halting the work while guidelines are rewritten.

Webster believes that it is urgent to resolve the guidelines for gainof-function research because countries like China do not face such restrictions.

"It needs to be examined carefully because the rest of the world is going ahead much more quickly," he says. "There are huge ethical decisions to be made in biology."

On the flipside, research like this could open the way to a universal vaccine for flu.

"You could have a universal vaccine in one shot, like with the measles. Influenza vaccines are only 50 per cent effective so we need much better vaccines."

New drugs are also needed because currently there is only one effective drug for flu, while there is a plethora of HIV drugs.

There is also scope to learn more from the genomes of hosts to understand, for example, why ducks show almost no sign of the disease while a chicken will die from the same strain, he says.

"What's the difference? We now know the chicken, during genetic development, lost the RIG-I gene - a gene that makes interferon. The duck does it, the chicken doesn't, so the chicken dies.

"This is just one of a whole host of genes. Many animals, such as sheep, don't get influenza, so what are the genes that prevent them from getting it? Could you put those genes into the pig, into the chicken and create genetic resistance? That will happen."

Infections research

Pandemic flu, tuberculosis and antimicrobial resistance are important areas of focus for scientists at the Webster Centre for Infectious Diseases.

t may be 60 years since Professor Robert Webster left the University of Otago, but there is a lasting legacy in the form of the Webster Centre for Infectious Diseases, named after him and his wife Marjorie. Their endowment to Otago includes the Webster Family Chair in Viral Pathogenesis.

"Marjorie was very much responsible for talking me into setting that up," explains Webster. "She is a Home Science graduate from Otago and we felt we owed something back to the University."

Professor Kurt Krause (Biochemistry) is the Director for the Webster Centre which is now in its 10th year.

"We're a 'virtual' centre, meaning we don't have a building, but we're a collective of scientists and clinicians who are interested in infectious diseases – how to identify them, how do they work, how to treat them, how to prevent them, how to understand them."

While the majority of the Webster Centre researchers are at Otago, a number of scientists from other research institutions participate, including more than 60 experts from four universities and several Crown Research Institutes such as AgResearch and ESR.

Krause says the centre has four main aims – facilitating research in infectious diseases, training students, maintaining a workforce with expertise in infectious diseases and building collaborations



to address national infectious diseases issues.

"New Zealand needs strength in all these areas to be ready for future challenges in infectious diseases like pandemic flu or antimicrobial resistance. It is important to remember that after a crisis appears it is too late to begin to develop a response. We need to be ready to respond immediately," he says.

"At the Webster Centre, we're interested in translational research including the development of vaccines and diagnostics, but we also have a strong interest in mechanism – how do viruses and bacteria and other microbes work? The development of new effective treatments is catalysed by an understanding of the basic biology and disease mechanisms of infectious diseases.

"Some of our main interests at Otago include tuberculosis, antimicrobial resistance and poxviruses."

Tuberculosis (TB) remains a leading cause of death worldwide and is a major focus for Webster Centre scientists, including Professors Greg Cook and Frank Griffin (Microbiology and Immunology).

"Over a million people die each year and there are 480,000 TB infections

caused by multidrug-resistant tuberculosis," says Krause.

"If you have multidrug-resistant tuberculosis your odds of death, even with treatment, are over 50 per cent, so new antibiotics are sorely needed."

Allied with that is a crisis in antimicrobial resistance which, in 2016, was called the next great global challenge by the United Nations. Webster Centre scientists are now trying to design new antibiotics and come up with new forms of treatment.

Deputy Director, Professor Andy Mercer (Microbiology and Immunology), who holds the Webster Family Chair in Viral Pathogenesis, is currently looking at beneficial aspects of viruses, examining how during infection they are able to turn down inflammation.

Krause says that inflammation, which is helpful during viral infections, can be damaging in human autoimmune diseases such as arthritis and lupus.

"So scientists in the Webster Centre are studying the molecules that viruses use to reduce inflammation to see if they can be used to help people with autoimmune disease."

The centre is now entering a new phase by becoming part of a larger entity

called One Health Aotearoa, based at the University of Otago, Christchurch, with the Webster Centre providing a mechanistic focus.

"The idea of One Health is that the health of people, animals and the environment are linked together and should be thought of as one unit," says Krause.

"In a way, it may mean a little bit less independence for the Webster Centre, but in another way it is a nice coincidence because Professor Webster himself was an early advocate of the One Health concept.

"One of the things he championed was that the flu we get every year is passed between birds and livestock and people, which is a direct affirmation of the One Health Concept."

In the future Krause would like to see an infectious disease Centre of Research Excellence (CoRE) with the Webster name on it.

"We already have the MacDiarmid CoRE and the Maurice Wilkins CoRE, and Robert Webster is very much in that group in terms of international impact."

MARK WRIGHT



hile Sunny Collings was doing her postgraduate clinical training in psychiatry in London in the late 1980s, she had the chance to do a research fellowship with Professor Michael King at the Royal Free Hospital about the eating disorder *bulimia nervosa*. That was her first scientific paper and she found she "really, really" enjoyed the research.

"I'm a very curious person. That's what drives my work and why I became a researcher. I'm particularly curious about things that don't fit existing silos of knowledge – what is happening in the grey areas; on the edges of disciplines, social, cultural and clinical practices. That has driven a lot of my research and is a binding theme in my life," says Professor Collings.

Since that time, Collings has published on a wide range of topics, from food security to ethics and authorship issues, with many focused on suicide, self-harm and mental health in primary care.

Now the Dean and Head of Campus of the University of Otago, Wellington (UOW) and Deputy Dean of the Otago Medical School, Collings is a consultant psychiatrist and director of the Suicide and Mental Health Research Group / Te Rōpū Rangahau i te Mate Whakamomori me te Hauora Hinengaro, a multidisciplinary team of researchers and clinicians in suicide prevention, mental health and illness.

Although it appears a demanding portfolio of roles, Collings says she likes having such a varied job and sees the roles as complementary to each other.

"My workload is actually comparable to that of many senior clinical academics at the University of Otago. It's a privilege to be the Dean at UOW. I see it as a leadership and stewardship role – doing

what I can do to enhance and shape the future of the University of Otago in Wellington."

The UOW campus hosts around 300 undergraduate medical students (in their 4th, 5th and 6th years of training) each year, and New Zealand's only Radiation Therapy undergraduate degree. In addition, there are about 350 research, clinical and teaching staff in nine health science departments, and more than 21 different research groups with nearly 700 postgraduate students.

Collings has worked at UOW in joint academic and clinical roles for 25 years. First appointed Dean and Head of Campus in February 2011, she is now into her second five-year term. The high-level commitment to the Dean's role means her personal research strategy is now "about mentoring others and sustaining a balanced research team".

"I still like to be learning something I don't know about and to be stretched, otherwise I get bored. I'm not sure if this is generally a prerequisite for research, but it is for me. Feeling intellectually extended is my happy place," she says.

Her research career began while she was doing her postgraduate training in London: she decided she "wanted to have a go at it" and got the six-month research fellowship with Professor King. Once she'd qualified as a psychiatric consultant she then questioned whether that was what she wanted to do for the rest of her working career and decided to take the path of academia instead – "a perfect mix for me of research and clinical work".

"Also, at that time, I was pregnant and we knew it would be tough in the UK with a young family and no support, so we returned to New Zealand." Collings was appointed senior lecturer in Psychological Medicine at UOW in 1991. Now as Dean, she works to foster collaborative research between departments.

"Co-supervision of PhD students can help, as it generates naturally occurring research collaboration between staff." For example, Denise Steers, whose PhD is being co-supervised by Collings and paediatric endocrinologist Associate Professor Esko Wiltshire, is researching what happens in clinical decision-making for infants born with intersex conditions.

"We came to it because we are interested especially in the mental health consequences for people down the track. This way you get a real cross-pollination of disciplines. This is a fascinating area, full of complexity and controversy.

"A spin-off of this project has led to me considering our commitment to diversity at UOW in a different way. It's re-energised a commitment I've always had, for example, to gender equality. Originally I'd thought I could make the most difference by simply being a senior woman in academic medicine, when there used to be so few." When Collings was a student there was only one woman professor in the whole of the Otago Medical School.

"As humans we tend to group things into boxes, but I've always been interested in people who sit outside the boxes or on the margins, both in my research and in human social phenomena. For example, in my clinical work, I see people with personality disorders who are often seen as not 'conforming' to straightforward diagnoses.

"Now I try to work on the things that only a Dean can do and let others take on different roles in the team. Giving voice to diversity is important to me: we need to have diversity where there is influence."

"As humans we tend to group things into boxes, but I've always been interested in people who sit outside the boxes or on the margins, both in my research and in human social phenomena."

Collings says her Suicide and Mental Health Research Group is a fantastic team of staff and students doing important work. With suicide being one of the leading causes of death in New Zealand, research and interventions to tackle mental health issues are becoming more urgent than ever, she says. They have a steady stream of PhD enquiries and currently have about six doctoral students. Recent student topics have included: clinician treatment of suicidal patients, cyber-bullying, Pacific mental health services, men's mental health and self-harm attendance in emergency departments.

"For our team, I deliberately wanted to have a second-in-charge who comes from a different discipline. Our deputy director, Dr Gabrielle Jenkin, is a social scientist with a whole different framework for looking at the world: she thinks about social systems and power relationships, whereas I am more embedded in the world of psychiatry.

"We are lucky – she is an outstanding deputy, managing the group's work day to day and we come in with new ideas and approaches and spot different opportunities. Our different backgrounds generate fertile ideas.

"You can't solve the big issues and problems if you have people who all have the same experience and think the same way. There's increasing evidence of that: for example, the National Science Challenges have collaborative teams of people from all sorts of backgrounds trying to solve the big science issues.

"I am very proud that Dr Jenkin has recently been awarded a Marsden Fast-Start grant to investigate acute mental health units from a design point of view."

Recent research from the team has looked into suicide investigations by New Zealand coroners and studied the feasibility of formal review of suicide deaths, the latter funded by the Health Quality and Safety Commission on behalf of the Ministry of Health.

"We're currently working on some papers in the area of suicide in the media and, particularly, pertaining to social media. It's important to get media reporting on suicide right as it can influence vulnerable people and careful coverage is probably helpful. That's a fine balance," Collings says.

"I have always been very interested in multidisciplinary approaches. Our team has such a variety of backgrounds and research interests and that's what excites me about this research and keeps me going with it, even while juggling the other roles. The different perspectives of my team give me new ideas and eventually we'll find new solutions together.

"I do have to be strategic about the research. It's not possible to run a very large group so we focus on medium-sized external contracts and our PhD students. Research students are important contributors to the group. In the last five years, publications have focused on suicide and self-harm, and management of mental health care in primary care."

A current campus-wide project that Collings is championing is the UOW

Korowai project. A special Korowai, or traditional Māori cloak, is being woven to reflect the significant relationship between UOW and mana whenua – and MoU partner for Wellington – Ngāti Toa Rangatira.

"The Korowai takes the place of the academic gown or can be worn over the top as a symbolic gesture that unites us with our mana whenua. We'll wear it at ceremonies such as our Student Awards Ceremony / Hui Whakanui Tauira and our Inaugural Professorial Lectures. When not in use it will be displayed securely as a work of art on the Wellington campus.

"This is symbolic and important for us. We were very proud last year to have our largest number of Māori doctors [19] graduating from UOW out of a record total of 45 from the University of Otago."

Collings recognises that her position of influence as Dean brings a real opportunity to "be the change you want to see", and just being present as a woman and permissive in a senior role is insufficient.

"You need to actively change things and most management decisions have the potential to move towards a diverse or more inclusive direction. Diversity among decision-makers and leaders is important, because we as a society all have a stake in this. It's an investment in the kind of society we want to create," she says.

FLEUR TEMPLETON

What if?

Individual liberty versus personal safety; drone strikes and targeted killings; the denigration of parliamentary processes: Otago alumnus Professor Jeremy Waldron discusses some of the legal and philosophical complexities of modern politics.

An insurgent detonates a roadside bomb on Thursday, but is killed doing his civilian job by a missile from a foreign power's aerial drone on Friday morning – this distinctly 21st century method of "targeted killing", says Professor Jeremy Waldron, adds extra complexities to centuries-old debates on where criminal law and the rules of war intersect.

Discussion on this and other legal "blurrings" has underpinned much of his academic career, which began with a Bachelor of Arts (Philosophy) and LLB (Law) at Otago in the mid-1970s. His interest in law and philosophy pre-dated undergraduate study.

"There were five children in our family and we always received volumes of the *Oxford Junior Encyclopaedia*. We got the set pretty quick – I got one called 'Law and Order'," he laughs.

Otago furthered his intense interest in the "intricacies of the whole legal process and systems, and the ideology of the rule of law".

He has since lectured at several prestigious universities including Berkeley, Princeton, Columbia and Oxford, and now New York University's School of Law. In 15 books and numerous articles he has explored a range of questions on political theory, constitutionalism, the rule of law, democracy, torture, security, homelessness and international law.

Post 9/11 and the US invasion of Iraq, his work – such as his 2010 book *Torture*, *Terror and Trade-Offs: Philosophy for the White House* – has delved into the opaque world of interrogation and torture to explore how public safety can be maintained in a way that protects the inviolate rights of the individual.

He has most recently discussed individual-liberty-versus-public-safety themes in the context of state-sanctioned "targeted killings".

A primary concern is that while the rules for conventional warfare – where the chess pieces of two opposing powers line up to fight "symmetrical" battles – are well-defined by various international conventions, laws surrounding counterinsurgency and killing by drone or death squad are more fluid.

"Terrorists – or insurgents, if you support their cause – only do it parttime. The question, about someone who is a part-time mechanic and a bombmaker, becomes whether it's lawful to target that person when they are not engaged in lethal activity.

"On the one hand, drone strikes or operatives on the ground protect the state's national interests, and the safety of its citizens, but it has to be done in a way that allows states to maintain the moral high ground. It presents many interesting legal questions."

In recent years, as the Obama regime stepped up targeted killings, questions of legality were increasingly asked, he says. The BBC reported White House figures showing US drone and air strikes killed between 64 and 116 civilians outside war zones between 2009 and 2015 – human rights groups argued the number of noncombatants killed was far higher.

While others discuss the broader moral dilemmas these strikes present, Waldron focuses on providing clarity on legal issues.

"It would be easy to say, 'if only we could resolve issues around sovereignty, or limiting collateral damage or doubt about the identity of targets' – but that would be a distraction, for me, from talking about where counter-terrorism measures sit on the cusp between law



"The question, about someone who is a part-time mechanic and a bomb-maker, becomes whether it's lawful to target that person when they are not engaged in lethal activity."

enforcement and military engagement and whether the lethal logic of the war model could, or should, work in combination with the individualised logic of the crime control model."

A key question is whether the use of lethal force becomes dependent on the ability of the main protagonists to rationalise their actions – or if "fire can be fought with fire".

"The Israeli Supreme Court is one of the most articulate defenders of the position and says their state must defend itself with one hand tied behind its back. In 2006 it said targeted killing was permissible when armed apprehension and capture of insurgents wasn't a possibility. But US courts see this as a political question."

This distinction was tested in 2010 when Nasser Al-Awlaki appealed to US courts for his son Anwar's name to be removed from a death list: the courts decided they would not hear the case because it was a constitutional issue, Waldron says.

Anwar, a US citizen who the Obama regime said had links to terrorist groups and individuals linked with terror plots, was killed in the Yemen by a missile fired from a CIA-operated drone in 2011.

But has increased use of drone strikes seen them become publicly normalised, despite their precarious standing in international law?

"Just as he was anxious from the outset to move away from the prisoner detainee model that had damaged President Bush, President Obama increasingly dictated that Special Forces, under the military chain of command, would control targeted killings.

"This was a way to challenge the multiple difficulties it was facing legally – he wanted to make them look more procedural. But the notion that the US will maintain a death list of 300 to 400 people is always going to look somewhat anomalous."

Aside from writing on terrorism, Waldron's work in New Zealand over the past 20 years has been to return to "scream a little bit" at the denigration of parliamentary processes that ideally involve many MPs, but which end up "being browbeaten and dominated by the executive".

"It's mitigated somewhat by the committee system, but you don't have the different layers of scrutiny in place that you have in the US, especially after the second chamber was abolished in New Zealand in the 1950s."

Apart from theatrics in the House, the erosion of a robust process – he cites a rule which allows members of parliament to not be present in the chamber when voting on issues – means parliament can be seen as a "talking-shop" by a disengaged public and portrayed as "comedy hour by the news media".

The ultimate danger with all safeguards gone is "effectively elective dictatorship – a system in which cabinet controls all agendas".

Whether it is parliamentary process or terrorism, Waldron's work explores an important "what if?"

"We have to think about the checks and balances, and maintaining rigorous legal systems. Counter-terrorism, for instance, requires greater scrutiny because it improves our security by making other people more vulnerable – we trade off the liberty of a minority for our security. When we do that there are important distributive questions about the equity of benefits and burden."

And what if the rules from the "war on terror" are arbitrarily applied to fight the "war on drugs" in the US, and targeted killing became part of a domestic strategy for crime prevention? Ultimately, Waldron says, justice must prevail.

"In a democracy, there's always that interplay between popular pressure – because when you say popularism you refer to the people whose lives are affected by terrorism or drugs – and the requirement to maintain the rule of law.

"If we purport to occupy the moral high ground in the war against terrorism the indispensable part of the strategy must be transparency and recourse to international laws. To put it another way, we would seriously discredit the struggle against terrorism to the extent to which we descend into the unconstrained use of lethal force."

SAM STEVENS

Hormone test wins grant

A new simple-to-use test for measuring estrogenic levels in women's blood offers significant potential to monitor existing breast cancer patients and as a screening tool to help save more lives.

The widespread presence of chemicals that mimic estrogens, the primary female sex hormones, has far-reaching consequences for fertility, health and cancer management.

Recognising this significance, a new test devised by Professor Alison Heather and her team from Otago's Department of Physiology to measure estrogens – and their estrogen-like imposters – won the 2016 Translational Research Grant.

The \$50,000 award will help the researchers commercialise their technology and fund critical work leading to patents and scientific papers. Otago Innovation Ltd will provide intellectual property management and business advice to ensure the needs of potential investors or licensees are met.

The new hormone test leverages cell-based assays already developed by Heather. However, as these tests are too cumbersome and expensive for use outside the laboratory or for high-volume applications, Heather and her team have dissected and extracted the key molecular machinery from inside cells to develop a new portable, inexpensive and simple-to-use test to show the presence of molecules that activate the estrogen hormone response.

Their first test is for the management of breast cancer, which will be evaluated in collaboration with clinical oncologists at Dunedin Public Hospital.

Breast cancer is a major cause of death for New Zealand women, many of whom relapse after their initial treatment.

"Estrogens have profound effects on the development, progression and recurrence of this disease and current therapies block estrogen production to prevent new tumour growth," says Heather. "But, sadly, being 'disease-free' does not stop recurring disease in some cases."

This occurs when "estrogen imposters" – or estrogenic molecules – mimic the structure of estrogen, activating molecular signalling cascades in cells and driving new tumour growth.

"Having a quick and reliable test for estrogenic molecules will provide an early warning for potential relapse," she says.

The estrogenic molecules include naturally-occurring plant-derived phytoestrogens, fungi-derived mycoestrogens and a range of synthetic compounds that are found in many consumer products. Many of these compounds can accumulate naturally. "The first product will be a medical device used by clinical practitioners to monitor estrogenic levels in the blood of patients," says Heather. "Clinical trials have shown that estrogenic activity is elevated two years prior to breast cancer diagnosis and so could be used to identify high-risk people. For example, it may be useful to monitor women at high risk of primary breast cancer due to a family history of the disease."

If the estrogenic bioassay proves its worth not only as a monitor for recurring disease, but also a screening tool for new disease, it could add significantly to the screening techniques currently used, saving more lives.

The Translational Research Grant is an annual competition offered by the Division of Health Sciences with the primary goal of assisting researchers in the pursuit of research that translates into societal benefits. A written application is followed by a *Dragons' Den-*style pitch to a panel of experts.

STEVEN SOWERBY



Pacific realities

Alumna Sala Muliagatele Georgina Bonin is applying the knowledge she gained at Otago to her work at the Apia-based United Nations Development Program, helping to improve the lives of people in the Pacific.

Visitors to the Pacific often see the carefree tropical idyll but, says Otago alumna Sala Muliagatele Georgina Bonin, many people living across this vast geographic region often face less than ideal economic realities.

The Apia-based United Nations Development Program (UNDP) assistant resident representative works in the organisation's Governance and Poverty Reduction Unit to "improve the lives of people in the Pacific" by implementing and managing UNDP-funded projects.

Sala Georgina's role is far-reaching in a literal sense – the UNDP has offices in Samoa, Papua New Guinea and Fiji –and the organisation's political clout and resourcing frequently mean that it is uniquely placed to create partnership opportunities.

"We are often pivotal in taking the development ideas proposed by regional governments and bringing in other global agencies or private-sector partners to make them a reality. It's the UNDP's convening power to bring organisations together that makes projects happen."

Since the early 1990s, the UNDP has produced the Global Human

Development Report based on a formula that measures development using gross domestic product (GDP) and enrolment rates in primary schools, income per capita and longevity.

As a result, development initiatives have sought to address factors that stop people achieving a good quality of life.

"The UNDP programmes are about putting humans at the centre of development," she says.

And, increasingly, it is the Pacific's young that are most in need of assistance: over 60 per cent of the Samoan population, for instance, is aged between 15 and 33 and, within this demographic, 16.5 per cent are unemployed.

This burgeoning group could undermine Samoa's efforts to consolidate the hard-won economic upgrade that saw it recently shed its "least developed country" status. Accordingly, when the UNDP's five-year development project cycle began in 2013 the Samoan government identified youth unemployment and gender inequality as priority issues.

"More than 3,000 young people leave the school system every year and

the public and private sectors don't have enough jobs for them. Many are leaving the education system without the necessary skills, so our priority is to get young people to create business opportunities for themselves, rather than trying to find jobs that aren't there."

In response, the UNDP has connected the government and relevant youth and social development and international agencies in public-private partnerships (PPPs) to implement programmes that assist young people in starting microbusinesses.

These schemes build on regional strengths, such as agriculture or tourism, so that locals benefit from producing globally desirable products. A recent example is UNESCO's Food and Agriculture Organisation initiative focused on increasing production of organic produce, such as coconut oil, which is in demand in the Pacific and worldwide.

"A good example of a PPP at work is the Samoa-based Women in Business Development group project, which helps primary producers reach high-value markets. For the last 10 years, group "The UNDP programmes are about putting humans at the centre of development."

Sala Muliagatele Georgina Bonin

members have grown organicallycertified virgin coconut oil for the Body Shop in Europe."

The model's success is established and now, with US soap and beauty product supplier Dr Bronner expanding into Samoa, new opportunities to supply materials for cosmetic and health-care products can only have good outcomes for local producers, she says.

Central to her UNDP work is the concept of partnership and empowerment at all levels.

"At the third International Conference on Small Island Developing States in 2013 one of the main outputs was a drive for real and lasting partnerships. Small states don't want overseas donors coming and telling them what to do. They want their sovereign rights to be recognised, and for the UNDP and all actors to help make their dreams a reality.

"And for the producers, our priority is empowering young people by giving practical assistance with the complete agricultural or horticultural process – from growing crops through to marketing products to domestic or international markets."

Aside from providing the basis for economic stability in farming areas, training at education centres such as the Asia Pacific Technical Training Centre in Apia, is aimed at addressing a skill shortage in an array of trades and the tourism industry. The priority



with these initiatives is adding value to young people's products and services, and connecting them with employers. The benefits extend beyond the purely financial.

"Tuition in traditional art is paired with small business enterprise centre training, so young people learn how to make their art more marketable. We are also developing an app to connect them with training providers and employers. And we work with the Samoa Culture Centre, who are training 20 young people in arts and crafts."

The demand for traditional craft is high and 20 women who were recently trained in tapa cloth production and design immediately found jobs.

In time, the cumulative effect of these "beacon" initiatives may be to improve the lot of local communities and help the nation's economy address its negative trade deficit: in 2014 its exports – 90 per cent of which were from the agricultural sector – were \$52.6 million against imports totalling \$458 million.

Sala describes studying social anthropology at Otago as a vital "springboard" to an enduring personal and professional interest in human development. Lecturers such as Professor Peter Higgins' insights into objective research and community tendency analysis led her to value a highly "applied" model for community work.

"I apply much of what I learned in my own work now. I have a master's in safety science, too, and so I would advocate for people to have a double degree, or a degree that includes the arts, because that side really opens you up to analytical and lateral thinking."

Her Bachelor of Arts also provided specific knowledge required to work in an international organisation with broad areas of involvement.

"When you work in the Pacific you must be mindful of similarities and differences, both cultural and historical, or the context that's led to so much recent change. For instance, the development project might be in an area where they don't have a stable parliament, or in an independent country or territory.

"But, with experience, I've learnt to analyse and interpret things in my own way and to look at what's on the ground using various cultural perspectives. It's about finding what's real to the people I'm dealing with."

SAM STEVENS

Dignifying politics by according dignity to all

e are living in interesting and deeply worrying times. The neo-liberal world order and the democratic project are both under severe threat.

While neo-liberalism has many critics – myself included – it did generate trans-national openness, more porous boundaries between nation states and gave impetus to positive and negative globalisation. Positive globalisation is about national and regional problems being seen in one-world terms. Negative globalisation is about growing inequality and poverty (nationally, regionally and globally) and the world being seen through the optics of markets, transnational finance and corporations. All of these dynamics are linked.

The challenge confronting humanity is how to ensure that globalisation is

positive rather than negative, and how to build a world that is empathetic and cosmopolitan. This means acknowledging our global interdependence, species solidarity, and recognising that none of the major problems confronting the world are capable of being resolved at national levels alone. Unfortunately there are some who choose to respond to the negative consequences of globalisation with a retreat to atavistic nationalism.

The first big shock of 2016 was the British referendum on the European Union which went in favour of exit. While there are many explanations for the vote, the fact is that post-referendum Britain is in a state of political and economic uncertainty.

The consequence of Brexit is that the UK government now has to negotiate

a withdrawal from the EU which many believe to be one of the major achievements of post-war Europe. With all its flaws and inadequacies there is no doubt that the EU has kept the peace in Europe for the last 60 years.

Now the UK government has to work out relationships with the EU from the outside rather than in, which will generate many problems in terms of regional unity, energy, climate change, economic regulations, 21st century concepts of sovereignty and new foreign policy positions. But perhaps the biggest downside of Brexit is that it also activated a permissive environment for old-style bias, prejudice and racism. Withdrawal from the EU is being associated with a promotion of white English/British privilege.

"The political leaders of the Brexit movement and Donald Trump have created environments in which prejudice rather than respect, hate rather than empathy, fear rather than fearlessness, and dishonour rather than dignity are shaping attitudes and behaviour."

Professor Kevin Clements



"The Western democratic project will unravel unless we start treating friends and foes alike with dignity and respect."

The second big shock was the election of Donald Trump as the 45th President of the United States. His personality, campaign pronouncements and actions since his inauguration have generated high levels of systemic unpredictability as his office and administration advances an America first, isolationist, protectionist and assertive stance towards friends and enemies alike.

He won the election with a politics of fear and seems intent on maintaining that fear even if the "facts" don't support him. The refugee and migrant ban was the most egregious manifestation of these tendencies, but on other issues such as the New START Treaty, climate change, multilateralism, free trade, co-operative security, arms control and disarmament, relations with Iran, and sustainable development, the prospects are gloomy.

After the Presidential election the Bulletin of the Atomic Scientists moved the Doomsday Clock to 2½ minutes to midnight in acknowledgement of the President's unpredictability, nuclear challenge and fears about climate change.

But, here again, the major casualty of this election has been the generation of a permissive environment for naming and blaming others, for bias, prejudice and hatred against people of colour, foreigners, and those who don't conform to some mythical notion of how an "ideal" American should look and act.

The political leaders of the Brexit movement and Donald Trump have created environments in which prejudice rather than respect, hate rather than empathy, fear rather than fearlessness, and dishonour rather than dignity are shaping attitudes and behaviour. All of these attitudes generate deep insecurity, anxiety and discontent.

Donna Hicks argues in her 2011 book, Dignity: The Essential Role it Plays in Resolving Conflict, that if we do not accord dignity to others we run the risk of forfeiting the right to be treated humanely ourselves. I would go so far as to say that the Western democratic project will unravel unless we start treating friends and foes alike with dignity and respect. This is a prerequisite for civilised, humane behaviour and for rule-based politics. Without it our kith and kin in the UK and America will be seduced into thinking that the only future they have is one in which diversity is eradicated in favour of "tribal solidarity" with the white Anglosphere. These are the deeper negative consequences of both Brexit and Trump.

So what do we need to do to bring back respect and dignity into our New Zealand politics and, more importantly, to US and UK politics? Hicks has the following suggestions.

First, we need to accept the identities of others so that they can express their authentic selves without fear of negative judgement. There is no place for prejudice, bias or discrimination on any grounds. We must assume that each person has their own integrity and nurture that within them.

Second is recognition. We need to validate others for their talents, hard work and thoughtfulness, giving them credit for their ideas and wisdom.

Third, we accord people dignity by acknowledgement and attention. Listening to other people's concerns and histories is another way in which we dignify the other. Fourth, we need to practice inclusion rather than exclusion. We dignify by making people feel that they belong within their own families, communities, organisations and nation.

Fifth, we dignify by making people feel safe rather than insecure. We do this by ensuring no possibility of bodily harm and by not shaming or humiliating, but by encouraging others to speak their minds in safe spaces. Sixth, fairness is critical to dignity. We have to treat others as equals and work within agreed laws and rules. Seventh, we need to treat others as independent and free; eighth, empowered; and ninth, understood.

Finally, Hicks argues that we should treat people fairly according to agreed laws and rules. They should also be independent and free, empowered, understood and treated as trustworthy. This means starting from the premise that others have good motives and are acting with integrity.

In all of this, each one of us needs to be accountable for our actions and, if we violate the dignity of the other, we need to apologise and make a commitment to change our hurtful behaviour.

If these are the elements of dignified exchanges between people we are a long way from the ideal in both the UK and the US at the present time. On almost every criterion, both Nigel Farage and Donald Trump, for example, are pursuing undignified and undignifying policies of disrespect, hate, bias and prejudice.

Nothing will unravel the Western democratic project faster than a reassertion of 19th century imperial intolerance, a disrespect for human rights and the rule of law, and a Manichaean dualistic division of the world into them and us, good and bad, included and excluded.

This is a recipe for violence, insecurity, injustice, unfairness and unpeacefulness. It has to be resisted and stopped now so that there is a flickering chance the democratic flame might be rekindled and justice and peace will indeed kiss each other.

Professor Kevin P. Clements Director, National Centre for Peace and Conflict Studies University of Otago

Artistic endeavour

For New Zealand artists, a year of financial support and studio space to solely focus on their artwork is invaluable for their development. But it's what they give back to New Zealand's artistic scene that shows the legacy of the University of Otago's Frances Hodgkins Fellowship.

his present line of work is *good*,"
Dunedin-born artist Frances
Hodgkins writes in a letter to British gallery
owner Lucy Wertheim from Flatford Mill,
in 1930. "I have got well into the spirit of the
place and it is yielding up riches – undreamed
of, at first sight."

It's a game changer in the life of an artist. The combination of financial support with an inspiring new environment in which to work is what most artists only dream of. But these lines written by Hodgkins describing the prolific creative period brought on by her experience at the painting retreat was an opportunity replicated by the founders of the Frances Hodgkins Fellowship years later. Fifty years – and 49 fellows on – the fellowship continues to thrive.

Widely thought to be the brainchild of Dunedin writer and publisher Charles Brash who believed that a visual residency would help foster the country's cultural identity, the fellowship was established at the University of Otago in 1962, with a group of anonymous philanthropists helping to fund it. With the Burns Fellowship set up several years before, and the Mozart Fellowship (for musicians) following a few years later, the University of Otago became a centre of artistic endeavour.

Created to "encourage artists in the practice and advancement of their art" by providing them with a studio and a year's stipend, at the time the fellowship was created it was the only artist's residency of any substance in New Zealand – and remains the most generous fellowship for New Zealand artists today.



undreamed

Applicants are selected based on their track record, commitment to their work, and their ability to demonstrate how the residency will provide opportunities to build a sustained substantial practice and forge positive directions in their work. Candidates usually provide a proposed project outline, but, given the potentials for creative invention, selectors take into account that the project may grow and change through the year of the appointment.

To date, 49 artists have benefited from the residency, which began with painter Michael Illingworth - known for his distinctive landscapes and figurative works - awarded the first fellowship in 1966. Other well-known artists awarded the residency include Ralph Hotere, Julia Morison, Fiona Pardington, Joanna Paul, Christine Webster, Shane Cotton, Grahame Sydney, Marilynn Webb, Michael Smither and Gretchen Albrecht. Around 20 to 30 New Zealand artists from a variety of media apply each year for the highly-sought-after prize, which also has the positive effect of establishing Dunedin as a centre of art and innovation.

Former Dunedin Public Art Gallery director, and now freelance curator and writer, Priscilla Pitts has recently curated "Undreamed of...50 years of the Frances Hodgkins Fellowship", an exhibition hung in both the Dunedin Public Art Gallery and the Hocken that offers an insight into the extraordinary contribution of the fellowship to New Zealand's cultural landscape.

It included a work of art by each fellow created during the fellowship alongside a more recent artwork, highlighting a rich diversity of artists and art practices supported by the residency including painting, sculpture,

printmaking, photography and digital media. The two works side-by-side also showed the journey and growth of the artist. A book on the same subject – co-written with Andrea Hotere (the daughter of past fellow Ralph Hotere) – will be released later this year.

Pitts says the value of the fellowship can be measured not only in what the artists bring to the city, but also in what they contribute in the following years to the national art scene.

"Bringing people into Dunedin enlivens the art scene here in the city, inspiring new artists and engaging more people in art and design in general.

"But the overall success of the fellowship can be measured in what those artists go on to achieve and contribute to New Zealand's art culture. Out of the 49 artists given an opportunity to make work here, three have died, two are not making work any more, but the rest are still working and contributing to our national art scene."

However, the fellowship has not been without its challenges, says Pitts.

"When the fellowship was initially set up, it was aimed at bringing the visual arts into the University of Otago, but, as the University did not have an art school, it was not really aware of the impact of having an artist in its midst.

"In the early days, they didn't realise how artists work – and how noisy and messy they can be. The first studio space was very cold initially and many artists complained, particularly when faced with a Dunedin winter. Sculptor Marte Szirmay – who had the residency in 1971 and 1972 – talks about her wax moulds being chewed by rats, which she obviously wasn't too happy about.

"It was a steep learning curve in the beginning and it was difficult securing



Michael Smither, *Children at Breakfast Time*, 1970, oil on board, 73/211, Hocken Collections, Uare Taoka o Hākena.



Michael Illingworth, Adam and Eve, 1965, oil on canvas. Courtesy of the Frances Hodgkins Fellowship Trust Collection, Uare Taoka o Häkena.



Shane Cotton, *Back Words*, 2011, acrylic on linen, Hocken Collections. Uare Taoka o Hākena.

"Without exception, the fellows have brought a new sense of inventive vision to our communities. They enrich our different worlds."

the funding, but they persevered and the fellowship now thrives."

Frances Hodgkins Fellowship selection committee convenor David Bell says much of that success is due to the ongoing support of the University and city.

"Making decisions between so many deserving and highly committed candidates is never easy. The outcomes have all been successful, however. The fellowship has enjoyed the positive support of the University and city communities – and this wide support has ensured the success of each residency.

"Without exception, the fellows have brought a new sense of inventive vision to our communities. They enrich our different worlds. They have responded positively to the opportunities to work industriously, to take risks in their work, to build new professional relationships and to re-invigorate their conceptual frameworks and their practices. Fellows give public talks, exhibitions, student sessions and have contributed to the rich collections of the Hocken."

Bell says not only does the residency allow artists dedicated time to work without financial pressures, this time also offers creative flexibility, where many artists explore new mediums.

"For many artists, the opportunity for a full-year residency, on a substantial salary, and with a dedicated studio and institutional support, offers potentials both for an immersion in their work and for risk-taking explorations they would struggle to experience while balancing their art work against the demands of part-time jobs."

For Bell, the achievements of the first 50 years of the fellowship extend well beyond the original brief to "encourage artists in the practice and advancement of their art". It has been the "game

changer" for 49 artists, giving each an opportunity to expand professionally and personally. It has contributed enormously to New Zealand's artistic voice – and the impression of New Zealand art to the world. But moreover, says Bell, it has contributed to "the legitimisation of the visual arts as a realistic professional pathway, rather than a privileged pursuit".

Says Bell: "The fellowship has been – and remains – the most prestigious residential award in visual arts practice in New Zealand and, beyond its enrichment of our own local arts scene and the refreshing cycles of change through each year's appointments, the cumulative effect of the residency has been to secure the careers of two generations of professional artists in this country."

AMIE RICHARDSON



Gretchen Albrecht, *Whisper*, 2013, acrylic and oil on Belgian linen: 1050 x 1750 mm, V2016. 16.1, Hocken Collections, Uare Taoka o Hākena.



Joanna Paul, *Rose of Barry's Bay*, 1983, oil on canvas, 780 x 560 mm. Courtesy of the Frances Hodgkins Fellowship Trust Collection.

Otago Magazine readership survey

Late last year we undertook an online survey of *Otago Magazine* readers to find out more about your perceptions of the Magazine, what you want to read and how you want to read it. The survey was sent to a random sample of readers of all ages, both here in New Zealand and around the world. Thank you to all who took part: this is what you told us.



92% of you rate the quality of the Magazine as good or very good.



It is a preferred source of University information: 47% of you receive all or most – and a further 41% receive some – of your information about the University from the Magazine.



79% regard it as a generally credible source of information.



The subjects you most want to read about are research, issues of national or international concern, and medicine and health care.

Feature stories are most popular, followed by profiles, alumni news and the "Whatever happened to?" section.

While 64% of you want to continue to receive a print version of the Magazine, 36% now prefer to read it online.





75% of you – and 85% of international respondents – agree that the Magazine strengthens your connection to Otago, helping you to feel more in touch with the University and other alumni, and reminding you of your own experiences here.



78% have taken some positive action as a result of reading the Magazine, from discussing a story or visiting the University website, to recommending the University or making a donation.

The *Otago Magazine* has its own website: otago.ac.nz/otagomagazine

All of the stories available in the print issue can easily be read online. A pdf version of the Magazine can also be downloaded from this site and older issues are archived.

The Magazine website is updated at the same time as each print issue is delivered by mail. Email alerts of this are sent out to all those who have opted to receive alumni communications electronically.



If you would prefer to read all alumni communications electronically and receive Magazine email alerts, please let us know:

email database.alumni@otago.ac.nz or telephone 64 3 479 4516

On board

19-year-old Ryan Jones is a very busy young man. He is a father, a third-year Politics student and the youngest local body representative in New Zealand.

hird-year Politics student Ryan Jones is putting his studies into practice this year as he settles into his new role of West Harbour Community Board member.

He was elected to the board at the end of last year, making him, at 19, the youngest elected representative in New Zealand.

"My age undoubtedly played a role in the campaign," he says. "Some folks said I was too young for such a position and others were pleased to see 'fresh blood' stepping up."

As he was so young, Jones didn't have the profile that many of the other candidates had and knew he had to get himself known. He handed out leaflets, door knocked, met as many people as he could and even put up hoardings.

"A lot of people thought I was running for the Dunedin City Council. They'd never seen someone doing that for a community board."

He was celebrating his son's third birthday when he received the call to say he had been elected. "I was quite surprised by the news, as many of the other 11 candidates were more prominent in the community. But I felt good. All the work I had put in had been translated into votes – democracy in action!"

Jones, who is majoring in Politics with a minor in Māori Studies, is enjoying the opportunity his new role gives him to put his studies to the test.

"I am lucky to be able to incorporate much of what I study with what I practise in my community board role and my wider role as an activist. Whether it is the networking skills I've developed on campus or the analytical skills I've learned in the classroom, they all contribute to my public service roles.

"In terms of study, there are clear benefits with what I'm involved in and, in terms of life skills, I feel like I'm pretty well equipped for a 19-year old."

Jones's road to university was not a traditional one. He left school in Year 12 and became a father, something that has given him a different perspective to other students his age, he says.

"A lot of my classmates are by no means in a similar situation. I think my own path is pretty unique.

"At high school I didn't really have a path into tertiary study. I was sort of thinking I'd leave school and get a job. Becoming a father was a huge part of my decision to pursue higher education and it remains a strong driver of mine today," he says.

In 2014, Jones completed a Foundation Studies course that gave him NCEA Level 2 and confirmed his desire to study further.

"At that time I was starting to have an interest in politics and one of my classmates suggested I should go to the University of Otago. I was advised to do a Foundation Year there, which is designed to prepare you for university – essay writing, structure of lectures etc ... It's perfect."

Now in his third year of a Bachelor of Arts, he is planning to continue his education with a master's degree in Politics. He will also continue working on key local issues, such as a more affordable public transport system for Port Chalmers, the creation of a dog park and the completion of the cycleway.

Jones, who was born and raised in West Harbour, has long been interested in issues affecting his town. His road to politics began after he joined a campaign to prevent the downgrade of the Port Chalmers New World Supermarket. He

"I am lucky to be able to incorporate much of what I study with what I practise in my community board role and my wider role as an activist."

then went on to campaign against a representation review investigation into reducing the size and role of community boards.

Through these campaigns and through his studies, he met a range of people who supported his ideas and encouraged him to run for the community board.

"The initial support from elected representatives in the community was

really encouraging. These were people I looked up to such as former [Dunedin City and current Otago Regional] councillor Andrew Noone and [West Harbour Community Board chairman] Steve Walker. But the most important support came from friends and family and, without that, I couldn't have given it my all."

Jones's term as board member is for three years and, combined with his

studies, being a father and his part-time jobs, it promises to be a busy time.

"It's up to individual board members how much they bring to the job," he says. "I'm pretty keen to bring as much as possible."

LAURA HEWSON



Explosive research

Two University of Otago geologists are taking an unparalleled opportunity to study the biggest explosive submarine volcanic eruption known in history.

Professor James White and PhD student Arran Murch (Department of Geology) are being supported by the Marsden Fund to research the massive 2012 volcanic eruption on the seafloor in the Kermadecs that rivalled the 1980 Mt St Helens eruption on land.

White, who specialises in the study of volcanoes, explains that eruptions to the surface from such depths were unknown, yet this eruption produced a 400-square-kilometre pumice raft and a plume of vapour seen from satellites.

White and Murch were on board a United States-funded research ship in 2015 that launched remote-controlled submarines to produce what White describes as an "amazing" topographical map of the volcano and collect an "extraordinary suite of samples" as big as buckets.

He says that they will be conducting experiments on some of those samples as part of a multinational project that also embraces scientists from the United States, Australia, Japan and the United Kingdom.

"We are going to remelt rocks from the eruption and explode them again to look at the fragments, and then measure the heat transfer and plug that into models to understand how it all works." White says that nothing like this eruption's scale, information about it, or intensive multinational follow-up study, has occurred with previous explosive submarine eruptions, and the study will gain a rigorous understanding of how explosive volcanism operates in the deep sea.



Professor James White: "We are going to remelt rocks from the eruption and explode them again to look at the fragments ... to understand how it all works."

Pacific youth health

Research by medical student Hilla Fukofuka on links between mental illness and diabetes in Pacific youth could reduce the incidence of both conditions.

Fukofuka explains that Pacific adolescents have the highest rates of mental illness in New Zealand, and are a particularly highrisk group for type 2 diabetes, which is a rising epidemic in this country.

She worked with data from a Dunedin study of Pacific adolescents that had been analysed by her supervisor, Dr Mele Taumoepeau. The analysis showed that young Pacific people who had a higher sense of well-being were less likely to have risk factors that could lead to diabetes, either through the direct effect that a sense of well-being can have on the body, or indirectly through increased healthy behaviours.

This prompted a further study, led by Fukofuka, to identify specific barriers to the well-being of Pacific youth in Dunedin. She says that such knowledge has the potential to help fight poor mental health and diabetes by tailoring new interventions to this high-risk group.

Dunedin-born, of Tongan and Niuean descent, Fukofuka says that she became passionate about the subject through her medical studies in Dunedin.

"It is heart-breaking when you hear about such poor health statistics of people of your own ethnicity, and the fact that they haven't changed over the last few years indicates to me that we have to come at it from a different perspective."

The Health Research Council and the University of Otago Medical School have funded the research.



Hilla Fukofuka: "It is heart-breaking when you hear about such poor health statistics of people of your own ethnicity ... we have to come at it from a different perspective."

Kaikoura's coastal impacts

Although the Kaikoura earthquakes have devastated the region, they have provided a spin-off benefit for research by a University of Otago geographer who specialises in the development of rocky shorelines and shore platforms.

Dr Wayne Stephenson began monitoring 55 inter-tidal platform sites around the Kaikoura Peninsula in 1993, and inherited data for a few of the sites dating back a further 20 years.

Stephenson says that he will now remeasure the sites over the next couple of years to see how the erosion rates change following the raising of the platforms by about a metre.

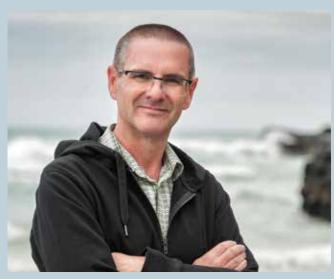
He explains that each site has a triangle of bolts fixed deep into the rock and, each time he goes back, he precisely fits to the top of the bolts a device called a micro-erosion meter that measures tiny increases in the distance to the eroded rock below.

He says that one of the things he is keen to discover is how long it takes before the bases of cliffs raised above the sea by the 'quakes are once again exposed to wave erosion.

"The opportunity to observe the impact of uplift on a coastline like this is really quite fantastic," Stephenson enthuses.

"Shore platforms comprise about 30 per cent of the world's coastlines, so anything that increases our understanding about how these shorelines develop is important."

Stephenson notes that the raising of the coastal land by about a metre will offset the predicted effects of climate change and associated sea level rises in the region.



Dr Wayne Stephenson: "The opportunity to observe the impact of uplift on a coastline like this is really quite fantastic."

Bio-ink breakthrough

The Christchurch Regenerative Medicine and Tissue Engineering (CReaTE) group has developed a bio-ink that allows them to 3D-print large, engineered implants matching a patient's anatomy.

Bio-inks are gel-like substances that carry living human or stem cells and degrade over time in the body to help regenerate damaged or diseased tissues. The University of Otago, Christchurch-based group has developed a novel visible-light bio-ink that, unlike most other bio-inks, does not need exposure to ultra-violet light to "harden" into 3D-bioprinted bone or cartilage shapes.

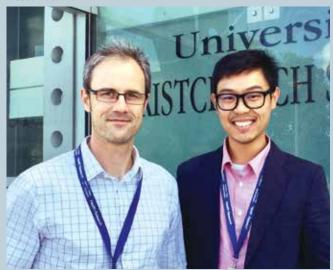
CReaTE leader Associate Professor Tim Woodfield says "our bio-inks give significantly higher stem cell viability because visible-light technology is gentler and more cell-friendly than ultra-violet light". Research Fellow Dr Khoon Lim, who led the work, says the novel bio-ink enables the 3D-bioprinting of high-precision large, engineered implants that match patient anatomy.

"This is an impressive feat with important clinical impact as approaches using ultra-violet light are not able to achieve this scale, and few groups have been successful in bioprinting the large, thick constructs needed in surgery."

The technology, invented by Lim and Woodfield, has been provisionally patented.

Woodfield says New Zealand researchers are at the fore of the rapidly growing field of bioprinting. CReaTE's strengths include its collaborations with clinicians; multidisciplinary nature;

and collaborations with New Zealand companies such as Ossis and Enztec who pioneered the 3D-printing of patient-specific titanium implants. CReaTE is also part of the MedTech Centre of Research Excellence (MedTech CoRE), a research collaboration aimed at developing applications for economic growth and health-care outcomes.



Associate Professor Tim Woodfield and Dr Khoon Lim: "This is an impressive feat with important clinical impact ..."

Milk of corporate kindness

Schools need guidelines on corporate marketing to children, according to Associate Professor Robert Aitken and Dr Leah Watkins (Department of Marketing).

The pair surveyed more than 2,000 members of the public online and interviewed nine Dunedin primary school principals on their perceptions of "corporate strategic giving" in schools using, as an example, the New Zealand dairy company Fonterra's introduction of free milk in schools in branded Anchor cartons.

Aitken says that, although most members of the public feel that such initiatives are a good thing, there is a surprisingly high level of cynicism over the motives of companies and concern at the targeting of children, who are more susceptible than are adults to advertising.

He says that school principals tend to be more pragmatic, particularly in lower-decile schools, and focus more on the benefits to the children, although they are generally concerned that there are no policy guidelines to assist them in making decisions about in-school marketing.

Aitken and Watkins agree and have called for the introduction of formal government guidelines regulating commercial activities that target children in schools, as happens in countries such as Scotland.

They say that the need for such guidelines is all the more important in a political environment in which educational

institutions are increasingly expected to seek alternative sources of funding, and schools are beginning to rely more heavily on corporate support and financial assistance.

The research results have been published in the *Journal of Consumer Affairs*.



Associate Professor Robert Aitken: They are calling for the introduction of formal government guidelines to regulate commercial activities targeting children in schools.

Primary beliefs

A University of Otago graduate is calling for the inclusion of education in religions and beliefs within the New Zealand state primary school curriculum.

Helen Bradstock recently completed her PhD in the Department of Theology and Religion on the subject of "religion and governmentality" in state primary schools. She interviewed teachers, parents, Bible-in-Schools volunteers and representatives of key stakeholders such as the Ministry of Education, the Human Rights Commission and the Churches Education Commission.

Bradstock says that she was surprised, when she arrived in New Zealand from the United Kingdom in 2009, that religion was taught by Bible-in-Schools volunteers during times when schools were deemed legally closed, and was absent from the mainstream curriculum.

She argues that New Zealand is a religiously diverse, bicultural, liberal democracy, and that this needs to be reflected in its education legislation, policy and practice.

"There are considerable problems surrounding voluntary religious instruction in state schools, where children now represent a variety of religious and non-religious family backgrounds," Bradstock maintains. "Constraints on the opting-out process mean that human rights are not protected and coercion into attendance is likely. For this reason, among others, I conclude that Bible-in-Schools should not take place in state schools.

However, she believes that liberal democratic nation states

have a compelling interest in protecting freedom of religion and relief, and that part of protecting religious freedom is ensuring that all citizens are informed and educated about other religious and non-religious world views.

"I, therefore, advocate education in religions and beliefs within the school curriculum."



Helen Bradstock: "There are considerable problems surrounding voluntary religious instruction in state schools ..."

Quit or persist?

Why do our brains sometimes tell us to stop doing something, even when we know that we will be better off if we continue?

It is a question that Dr Kristin Hillman (Department of Psychology) hopes to answer in her research on "the neural mechanisms of forfeit behaviour".

Hillman explains that we all quit minor tasks from time to time, but giving up during more important undertakings can adversely affect our personal and professional lives and, in excess, characterise clinical disorder.

Hillman says that the research involves using laboratory rats to test the hypothesis that quitting relates to two specific regions of the brain talking to one another.

"We think that the anterior cingulate cortex provides a 'keep going' signal after it decides that effort will pay off, and the anterior insula provides a 'quitting' signal as things start to get tough and tiring and frustrating."

Hillman says that, if this turns out to be the case, it could enable the development of therapies to reduce detrimental quitting behaviours and increase well-being.

For clinical disorders, she says that this could involve drug or behavioural therapies but, for most people, it could be as simple as getting some daily exercise. Hillman, research fellow Blake Porter and a future PhD student, will undertake the three-year research project, which is supported by the Marsden Fund.

Hillman says that the research stems from her fascination with why some people work hard at their jobs or personal hobbies, and others do not.



Dr Kristin Hillman: Her research could enable the development of therapies to reduce detrimental quitting behaviours and increase well-being.

Breaking the weight cycle

A web tool developed and tested by University of Otago researchers could help middle-aged women break out of a chronic pattern of dieting, binge eating and weight gain.

Associate Professor Caroline Horwath (Department of Human Nutrition) says that mid-life women are at risk of weight gain and associated health problems and, although dieting produces short-term weight loss, it is largely unsuccessful for long-term weight management.

Horwath led a research team in designing and evaluating a prototype web-based programme, "Mind, Body, Food", that applies two promising approaches to weight-gain prevention.

Horwath explains that the first, "intuitive eating", involves eating when hungry and stopping when full, rather than eating in response to emotions and external cues. The second, "acceptance and commitment therapy", develops skills to cope more effectively (through awareness and acceptance) with emotions, thoughts or cravings that might otherwise trigger overeating.

The researchers enrolled 40 overweight Dunedin women in the programme: most rated the tool as appealing, useful and easy to use. Horwath's team concluded that the tool appeared to be useful in helping women learn "intuitive eating" and "acceptance and commitment therapy" skills, improve mental well-being, reduce binge eating and prevent weight gain. The study findings, written up by Horwath and colleagues from Otago and the United States, have been published online by JMIR Research Protocols.

Horwath says that more work is needed to enhance further the experience for women using the programme, before the online intervention is tested in a randomised trial.



Sara Boucher (left) and Associate Professor Caroline Horwath: They have designed two promising approaches to weight-gain prevention.

Keeping it in the family

Are people who inherit family farms more likely to care for the land?

This is one of the questions that Dr Jane McCabe (Department of History and Art History) is seeking to answer in her "cross-cultural history of land and inheritance in Aotearoa".

McCabe has been awarded a Marsden Fund Fast Start grant for the research project that focuses on two farming districts: Taieri in the south and Hokianga in the north.

McCabe, who grew up in Mosgiel on the Taieri Plain, says that she chose the two rural districts partly because they provide a diversity of cultural backgrounds: notably Scottish and Chinese on the Taieri; and Māori and Dalmatian in the Hokianga.

"I want to look at farming families in a wider sense: different kinds of land use and different cultural perspectives," McCabe explains.

The lecturer plans to put on her gumboots and talk to family members about the practices and problems of transferring land to the next generation.

"My overarching concern is the connection between people and land. Inheritance practice is a meaningful way of exploring how people attach to the land and of assessing the pros and cons of familial land transfer as we move increasingly towards corporate ownership models."

McCabe says that she intends to write a book and academic articles based on her research, host a workshop at Otago involving international and New Zealand scholars who are working on rural history, and disseminate her findings in public and community forums.



Dr Jane McCabe: "My overarching concern is the connection between people and land."

Porter family values

The Bronte sisters and Rossetti siblings are fairly well known, but another 19th century British family deserves wider recognition.

That is the view of Dr Thomas McLean (Department of English and Linguistics) who has been studying how three members of the Porter family – novelists Jane and Anna Maria and artist Robert – shaped 19th century literature and art.

McLean, whose research has been supported by the Marsden Fund, argues that the Porters influenced and altered some of the major literary and artistic movements of the British Romantic and Victorian eras.

McLean says that his research reveals Jane's importance in the development of the popular historical novel - before the likes of Walter Scott and Leo Tolstoy - including her long-forgotten best sellers *Thaddeus of Warsaw* and *The Scottish Chiefs*. He describes Robert as a pioneering war artist and an important figure - as a world traveller and collector - in archaeology and the development of museums.

McLean says that we often imagine the writer or artist as a solitary genius, but the collaborations between the Porter siblings, and their associations with the wider literary and artistic world, illustrate the importance of family and global networks in the creation of cultural works.

McLean is writing a book on the Porter family, and he and postdoctoral fellow, Dr Ruth Knezevich, are editing a collection of Jane's letters. They also organised a recent symposium at the University of Otago on British 19th century literary and artistic family connections, and curated a related Special Collections exhibition.



Dr Thomas McLean and **Dr Ruth Knezevich:** Their work highlights how the Porter family helped shape 19th century literature and art.

Squishy skin treatment

A novel drug-delivery technology being developed at Otago could revolutionise the treatment of some skin conditions.

Dr Eng Wui Tan and Sean Mackay (Department of Chemistry) are researching a topical treatment for non-cancerous tumours of the vascular system, commonly called strawberry birthmarks, and for other related disfiguring conditions such as wounds with excessive scar tissue, known as keloid scars.

The pair explain that the technology will deliver very small, soft, skin-penetrating capsules that are loaded with drugs and are able to change their shape and squeeze between gaps in skin cells directly to the affected areas.

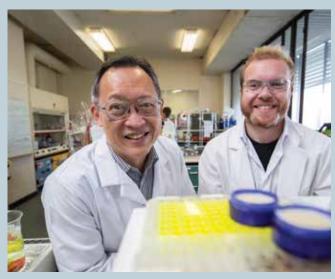
"The skin works very well as a natural barrier," Tan notes, "so we are having to overcome the skin's ability to keep these things out."

They have named the new technology "squish" because of the way the capsules or nanoparticles "squish" their way between the skin cells.

They say that current treatments for such conditions include surgery and oral drugs that can take a long time and have adverse side effects.

Mackay says that the research came about after he heard the former professor in plastic surgery at Otago, Dr Swee Tan, talking about problems using beta-blockers to treat strawberry birthmarks. Mackay thought that his PhD research on drug delivery systems could be applied to improve the treatment. The pair says that, if the technology works, it feasibly could be applied to any skin-related conditions, including melanomas.

The three-year research project is being funded through the Ministry of Business, Innovation and Employment.



Dr Eng Wui Tan and **Sean Mackay:** Their new drug-delivery technology could feasibly be applied to any skin-related conditions.

Youth vision

A University of Otago, Wellington, study has found that youth in Porirua City need better co-ordination, collaboration and increased funding for amenities.

The BLITZ study, led by Dr Ramona Tiatia (He Kainga Oranga/ Healthy Housing Research Programme), developed an app to survey around 100 children and youth, 100 whānau, and service providers.

"We surveyed youth on whether they saw themselves living, working and building careers in Porirua in the next decade, and whether they and their whānau were being supported well enough by public and community services," says Tiatia.

Smoking, bullying/cyber-bullying and alcohol were identified by youth as the biggest problems, whereas adults thought that boredom/not enough to do, lack of affordable activities, and not enough art or cultural activities were significant issues.

"Porirua's a strong community which takes pride in its city with youth groups, churches and schools often co-ordinating services and activities, but they do not have enough funding or resources. To achieve social sector change, the city's youth need better facilities and affordable activities," says Tiatia.

With a higher youth population than other New Zealand cities, (26.2 per cent under 15, compared to 21.5 per cent for all New Zealand, and a median age of 32.6 compared to 35.9), Porirua was ideal for this study.

The BLITZ study is part of the wider Porirua Social Sector Trial established four years ago to trial new approaches to social sector change through inter-agency collaboration, co-ordination and communication to targeted communities.

The results of the study have been made available to Oranga Tamariki (Ministry for Vulnerable Children).



Dr Ramona Tiatia: "We surveyed youth on whether they saw themselves living, working and building careers in Porirua in the next decade ..."

Dunedin Study Director Professor Richie Poulton accepts the 2016 Prime Minister's Science Prize from the Prime Minister, the Rt Hon. Bill English.



Science Prize awarded to Dunedin Study

The University of Otago's internationally-acclaimed Dunedin Study has been awarded one of New Zealand's most important science honours, the 2016 Prime Minister's Science Prize.

The \$500,000 award was presented to the team, led by Professor Richie Poulton, in March.

Officially known as the Dunedin Multidisciplinary Health and Development Research Unit (DMHDRU), the team has been engaged in a ground-breaking longitudinal study for the past 45 years, tracking the lives of 1,037 children born at Queen Mary Maternity Hospital in 1972-73. Of these, 961 study members are still participating, representing 95 per cent of those still alive; 38 have died.

Arguably providing the most-detailed data on human development ever amassed, the study has led to hundreds of international studies with results that have informed policymakers, changing - and saving - the lives of people around the world.

This is the third time Otago researchers have won the Prime Minister's Science Prize: in 2014, it was presented to the He Kainga Oranga/Housing and Health Research Programme, led by Professor Philippa Howden-Chapman; and to scientists from the University and the National Institute of Water and Atmospheric Research in 2011.

Dunedin Study members were also recently presented with the University of Otago's 2016 Research Group Award, recognising the efforts of all the researchers, support staff and participants, and the study's outstanding record of publication and its impacts on society in New Zealand and overseas. This was only the second time the award has been presented.

A comprehensive story about the Dunedin Study will be featured in the October issue of the Otago Magazine.

New premises for DMHDRU

A purpose-built home for the Dunedin Multidisciplinary Health and Development Study, was officially opened by Tertiary Education Minister the Hon. Paul Goldsmith in January.

The new building, on the corner of Union Street and Anzac Avenue, is designed with the members of the Study in mind. Every few years study members return from all corners of the globe to be assessed, with intensive interviews and testing covering every aspect of their

lives and well-being, from mental health to cardiac fitness and respiratory tests.

University of Otago Vice-Chancellor Professor Harlene Hayne says she is delighted that the Dunedin Study now has new premises that reflect the importance of the study to the University, and its national and international significance.

Māori medical graduates create history

Forty-five Māori medical students - the largest number in New Zealand's history - graduated from the University of Otago in December in what was a significant event for the graduates, their whānau, the University, iwi Māori and the New Zealand health workforce. For the first time at Otago, Māori representation within the total number of medical graduates equated to the proportion of Māori in the New Zealand population.

Professor Peter Crampton, Pro-Vice-Chancellor (Health Sciences) and Dean, University of Otago Medical School, says New Zealand's medical workforce is on the verge of rapid and exciting changes in both the number and proportion of Māori doctors.

"This graduation of 45 new Māori doctors marks a significant inflection point - we expect at least this number of Māori doctors to graduate each year from now on."

PM announces partnership

In October, then Prime Minister the Rt Hon. John Key announced an important memorandum of understanding between the University and a prestigious educational institute in Bombay to foster a new teaching collaboration between the two organisations.

This is an opportunity for Otago and BSE Institute Ltd, a wholly-owned subsidiary of the Bombay Stock Exchange, to teach business-related postgraduate programmes together, to encourage student mobility between India and New Zealand, and to foster stronger links for future research between the two academic communities.

"Initially, the collaboration will focus on postgraduate programmes at Otago's School of Business, including several taught master's programmes and the MBA," says Otago's Director International Mr Simon Chu.

Otago tops national measures

The University of Otago has topped all but one of the key indicators measuring educational performance of students at New Zealand's universities. The Tertiary Education Commission's Educational Performance Indicators for 2015 examine areas such as overall course and qualification completions, retention rates and progression to higher levels of study. The usual four indicators were supplemented by a new indicator looking specifically at first-year retention and a revised qualification completion indicator.

Vice-Chancellor Professor Harlene Hayne welcomed the release of the indicators, saying Otago's stellar results reflect the excellence of the teaching and learning environment that the University offers students, and the efforts those students put into their studies.

Otago MBA among best

Otago Business School's MBA degree has been judged amongst the world's best in the latest QS Global 250 Business Schools report.

Otago's MBA is the only one in New Zealand to be included in the report and was ranked 28th in the Asia-Pacific region for graduate employability.

The analysis recognises the top MBA degrees for both employability and academic standards across all major world regions.

Marsden Fund success

University of Otago researchers have been awarded more than \$13.7 million in the latest annual Marsden Fund round to undertake 23 world-class research projects. The innovative Otago projects will be led by researchers from 14 different departments across the University.

Deputy Vice-Chancellor (Research and Enterprise) Professor Richard Blaikie says it is very pleasing that nine of the Otago projects are Fast-Start grants designed to support outstanding earlycareer researchers.

"From these up-and-coming researchers will come the University's research leaders of tomorrow so it is wonderful to see their important work recognised and supported through the fund."

The Marsden Fund supports excellent investigator-initiated research in science, engineering, mathematics, social sciences and the humanities in New Zealand.

Partnership renewed

The University recently renewed an important memorandum of understanding (MOU) with Te Rūnanga o Toa Rangatira. The MOU was signed at a ceremony at the University of Otago,

The new Dunedin Study building with Deputy Vice-Chancellor (Research and Enterprise) Professor Richard Blaikie, Tertiary Education Minister Paul Goldsmith and Vice-Chancellor Professor Harlene Hayne.

Photo: Sharron Bennett



Wellington, by Te Taku Parai, chair of Te Rūnanga, Sir Matiu Rei, Te Rūnanga Executive Director, and Mr John Ward, Chancellor of the University.

Dean and Head of Wellington Campus Professor Sunny Collings said that Ngāti Toa Rangatira has always been in the forefront of innovations in whānau ora, primary care and health promotion – developing health and social services that are Māori-led and benefit the whole community.

"They are well known for their determination and strong track record in improving access to low-cost primary health care for residents of Porirua and Wellington. We acknowledge their contribution to the education of health professionals, including our dental and medical students," she says.

Major artwork unveiled

In a significant contribution to culture in Dunedin, an artwork worth half a million dollars and standing around 3.2 metres tall has been gifted to the University by the Stuart Residence Halls Council to celebrate its 75th anniversary.

Pathways, by internationally renowned New Zealand sculptor Dr Paul Dibble, has been placed in a busy pedestrian area - at the junction of Union Walk and Castle Walk, between the Union Lawn and the Clocktower Building.

Vice-Chancellor Professor Harlene Hayne says the gift is a very generous contribution to the University's strategic aim to provide outstanding campus environments and a salute to the country's accomplished arts community.

"The University is proud of the strong and vibrant relationship it has enjoyed with the council during the past 75 years and grateful for the personal commitment various members of the council have volunteered over that period to enriching the University on so many different levels," she says.

QS subject ranking success

The University of Otago has been placed among the top 50 institutions in the world in five subject areas in

the recently released 2017 QS World University Rankings by Subject.

Otago was ranked seventh internationally for the study of Sport and sport-related disciplines, the highest ranking achieved by any New Zealand university for any subject area in these rankings. Four further subjects were placed inside the top 50: Anatomy (24th), Dentistry (29th), Archaeology (40th) and Development Studies (44th). Anthropology, Geography, History, Law, Medicine, Performing Arts and Psychology were also ranked in the top 100.

Deputy Vice-Chancellor (Academic) Professor Vernon Squire says the results are a pleasing independent acknowledgment of the breadth and depth of the University's teaching and research excellence across a range of disciplines.

Awards/Achievements

The outstanding achievements of two University of Otago researchers were recognised at the 2016 Research



Honours Dinner.
History researcher
Professor Tony
Ballantyne
FRSNZ (History
and Art History)
was awarded
the Humanities
Aronui Medal for

innovative work of outstanding merit in the humanities. Professor **Hamish Spence**r FRSNZ (Zoology) received the Callaghan Medal for his outstanding contribution to science communication and raising public awareness of the value of science to human progress.

Associate Professor **Nigel Dickson** (Preventive and Social Medicine) was one of five people recognised by the New Zealand AIDS Foundation late last year, receiving honorary Life Membership - the highest honour the organisation bestows.

Drs Federico Baltar (Marine Science) and Virginia Toy (Geology) have received five-year Rutherford Discovery Fellowships. Dr Baltar's research programme will investigate the role that microbes play in the biogeochemistry of oceans in waters that are rich in nutrients but low in plankton. Dr Toy's

research programme will investigate how observations of fault rocks can be used to infer their mechanical behaviour.

Dr Roslyn Kemp (Microbiology and



Immunology) won the inaugural Roche Translational Research Fellowship for her work investigating the immune response within cancer cells to

improve treatment outcomes for patients with bowel cancer.

A three-year grant from the Bill & Melinda Gates Foundation will support Professor **John Crump** (Centre for International Health)) and collaborators at Kilimanjaro Christian Medical Centre and Duke University to study severe typhoid fever in northern Tanzania.

National Poisons Centre Honorary Fellow Dr **Ian Hall** has been awarded the Friendship Award by the Chinese Government for his contribution towards China's economic and social progress. The award recognises his work at the Lhasa-based Tibetan Academy for Agriculture and Animal Science.

Professor **Alison Heather** (Physiology) has been awarded the Translational Research Grant from the Division of Health Sciences to assist her with the development of a new bioassay to detect estrogenic compounds in blood samples. (See pages 22-23.)

Dr **Karl Iremonger** (Physiology) and Dr **Tracy Melzer** (Medicine, Christchurch) are among several Otago researchers who gained funding to pursue innovative projects in the Neurological Foundation's latest grant round announced late last year.

Professor **David Bryant**(Mathematics and Statistics) won the
New Zealand Mathematics Society
Research Award in recognition of
his work developing mathematical,
statistical and computational tools for
evolutionary biology, and work drawing
on evolutionary biology to develop new
theories in mathematics.

The PIPI (pre-diabetes intervention package in primary care) project won an Excellence in Innovation award at the Hawke's Bay District Health Board Health Awards. Based around identifying those at risk, encouraging weight loss and offering continued support to these people in order to prevent diabetes, its complications and associated costs, the project is being led by Otago's Edgar Diabetes and Obesity Research Centre in partnership with Health Hawke's Bay and Sport Hawke's Bay.

Appointments

Professor Richard Barker, who



holds the Chair in Statistics in the Department of Mathematics and Statistics, is the next Pro-Vice-Chancellor of the Division of Sciences for an 18-month

period. He took up the role at the start of the year.

Leading educational leadership researcher, Professor **Ross Notman**, is the next Dean of the College of Education. Professor Notman takes up his position in April 2017 after Professor Lisa Smith completes her term as Dean.

Dr **Mele Taumoepeau** has been appointed as inaugural Associate Dean (Pacific) in the Division of Sciences. Dr Taumoepeau will fulfil this role in addition to her position of senior lecturer within the Department of Psychology.

Professorial promotions

Seventeen leading academics were promoted to full professor, effective 1 February: Margaret Briggs (Law), Hallie Buckley (Anatomy), Anthony **Butler** (Radiology, University of Otago, Christchurch), Neil Carr (Tourism), Nicholas Chandler (Oral Rehabilitation), Gerard Closs (Zoology), Alison Cree (Zoology), Gregory Dawes (Philosophy), Shelley Griffiths (Law), Robert Hancox (Preventive and Social Medicine), Janine Hayward (Politics), Jing-Bao Nie (Bioethics Centre), Ross Notman (College of Education), Nigel Perry (Chemistry), Susan Pullon (Primary Healthcare and General Practice, University of Otago, Wellington), **John** Reynolds (Anatomy), and Rachael Taylor (Medicine).

New Year Honours

Alumni recognised in the New Year Honours include:

Knight Companion of the New Zealand Order of Merit (KNZM): Distinguished Professor **Richard Lewis Maxwell Faull**, for services to medical research.

Officer of the New Zealand Order of Merit (ONZM): Mrs Beverley Rae Duff, for services to women and education; Mr John Ioane Fiso, for services to sport, education and the Pacific community; Professor Donald Malcolm McRae, for services to the State and international law; Ms Linda Marie Penno, for services to women's health and reproductive rights; Dr Neil Andrew Sinclair, for services to local government; and Ms Vanessa Clare van Uden, for services to local government.

Member of the New Zealand Order of Merit (MNZM): Dr Stuart Whitaker Brown, for services to children's health; Ms Bernadette Hall, for services to literature; Mrs Robyn Hickman, for services to education; Dr John Chirnside Hyndman, for services to health and innovation; Ms Elizabeth Mason Sinclair, for services to the State; Mr Desmond Gerald Smith, for services to rugby and the community; and Mrs Alison Thelma Wilkie, for services to health and education.

Companion of the Queen's Service Order (QSO): Mr **Richard Gerald McEirea**, for services as a coroner and to Antarctic heritage.

Queen's Service Medal (QSM): Dr James Richard Paul Kay, for services to polo; The Reverend Peter Brian Sykes, for services to the community; and Reverend Pelu Tuai, for services to the Pacific community.

Emeritus Professors

The University Council has recently awarded the following academics the status of Emeritus Professor: **Professor Helen May** (College of Education) and Professor **Brian A Darlow** (Paediatrics, Christchurch).

Obituaries

Emeritus Professor **Margaret Baird**, a committed biomedical scientist who

brought wisdom, encouragement and laughter to her colleagues and her many students. In 2013, she became the first New Zealander to be awarded the Derrick Rowley Medal for service to the Australasian Society of Immunology.

Emeritus Professor **Douglas S. Coombs** who joined Otago in 1947, becoming professor in 1956 and headed the Department of Geology for more than three decades. His research interests included mineralogy and petrology of metamorphic and igneous rocks, and New Zealand tectonics.

Emeritus Professor **Brian Cox** who joined Otago in 1963, becoming a professor in 1978 and Head of the Department of Computer Science from its founding in 1984 to his retirement in 2000. Prior to that, he served as Director of the Computing Centre (now ITS).

Emeritus Professor **Richard Dowden**. A Fellow of the Royal Society of New Zealand, he joined Otago in 1966 and, during his lengthy career in the Department of Physics, founded the Space Physics Research Group. He also played a major role in founding the World Wide Lightning Location Network.

Emeritus Professor **Peter (P.K.) Grant** who joined the Department of Chemistry as a lecturer in 1962, and was appointed to a personal chair in Chemistry in 1980. He retired in 1991. He is remembered within the department by the P.K. Grant prize, which is awarded to a fourth-year honours student.

Dr **Ted Nye** who joined the Department of Medicine in 1960, retiring as Associate Professor of Medicine in 1990. He directed research in the Lipid laboratory (later named the Hunter-Nye Lipid laboratory) and maintained contact with the research clinic until his death.

Associate Professor **John Burke** (retired) joined Otago's Department of Accounting and Finance in 1985 and also held two different roles in the Business School's MBA programme, including as MBA director from 2000 to 2002. He was a stalwart of the Dunedin rugby community and was a life member of the Otago University Rugby Football Club.

Dental alumni grab seats

Otago dental alumni have put their money where it counts, buying lecture theatre seats to support the school's redevelopment project.

D o you remember the seat you used to like to sit in while attending lectures at the University of Otago?

Well it seems the Faculty of Dentistry's alumni certainly can. They have been snapping up the opportunity to buy the 126 seats of the Blue Lecture Theatre as part of a fundraising campaign run in association with the New Zealand Dental Association (NZDA) and launched at the 2016 NZDA Annual Conference in Wellington.

Faculty Dean Professor Paul Brunton says it was an idea he put forward after having used it successfully while fundraising for a postgraduate centre in a dental school in the UK.

"We're refurbishing the Blue Lecture Theatre as part of our redevelopment project, so I suggested the idea of selling the seats here."

It was an idea the NZDA was keen to support, going as far as producing an app so people could go online and choose their seat, as CEO David Crum explains. "This is similar to that of booking an airline seat and was promoted at the conference so that dentists could book – purchase naming rights – to a particular seat and 'sit' among classmates.

"So, yes we have the usual 'front row' and the usual 'back row' personalities now with their named seats. They all sold – \$500 times 126 seats as this year's contribution towards the new Dental School."

During the conference sessions there was a banner running across the screen updating how many seats had gone, which generated a lot of interest, says Brunton.

"The NZDA produced the app for no cost and did the marketing for no cost so, basically, all the money will come to us to use as we wish, which is fantastic.

"This is the only dental school in the country. Most of the dentists in New Zealand went through this building at some point and so they are very, very proud of it and very loyal."

Crum voices similar sentiments explaining that giving back to the school

is an easy decision for many colleagues, and that the rebuild is an exciting and long-awaited project.

"I believe that advancement in oral health care, dentistry and community well-being, rely heavily on a fully-trained workforce, on research, on clinical excellence and community contribution. The profession and dental care rely on us as dentists, and on our dental school to be the resource we and our future colleagues need.

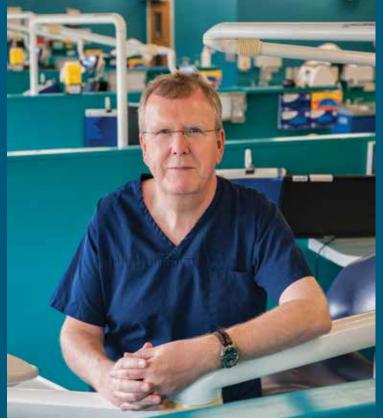
"The school provided me with the required knowledge and the clinical skills, with the ability to be a dentist, the beginnings of strong lifelong connections with colleagues and with the foundation to contribute to the health of my community, to earn a living and to live the lifestyle I live."

Further fundraising is in the pipeline with the Faculty of Dentistry and NZDA agreeing to have a new campaign at each conference. Although nothing has been decided, Brunton is keen on the idea of selling the dental chairs and cubicles in the clinic at the next conference in August.

"My suggestion was \$5,000 a chair with a little plaque in the cubicle saying who it is sponsored by. Obviously we're not going to sell them all – we have 250 of them – but it all helps."

"This is the only dental school in the country. Most of the dentists in New Zealand went through this building at some point and so they are very, very proud of it and very loyal." "This will give us funding for the things that we might have rather than what we must have."

Professor Paul Brunton



hoto: Alan Do

Brunton describes the alumni fundraising as "above and beyond" funding.

"I liken it to a hospital ward for children. The hospital provides the beds, the treatment, the doctors, the nurses, but they don't pay for the toys in the waiting room and the things that make it a bit more personal, friendly and child-focused.

"This will give us funding for the things that we might have rather than what we must have. We have already used some of the funds raised for our e-learning project and our uniform change for the students," he says.

"Primarily it wasn't about the money – it was about engaging with the profession over the project and showcasing what we're trying to achieve here."

With the help of the company manufacturing the dental chairs they produced a promotional video for the NZDA conference, which got people excited about the project and the concept of sponsoring the chairs.

"The video was about the school and the people and the journey students go on and the profession within New Zealand. People could connect back with the school, even if they graduated 40 years ago," he says.

"It was about the people. The building's fantastic, but actually it's all about the people.

"You can have the worst building in the world, but if you've got great people you can do great things. You can have the best building in the world, but if you don't have great people you don't do great things.

Alumni can still contribute through the NZDA website (*nzda.org.nz*) and a new initiative will be launched at the next NZDA conference in August.

Some individual NZDA branches are also making contributions to the project. The southern branch has been quickest off the mark with \$20,000 for a piece of artwork, in the form of a Māori kite, to go in the new glass atrium of the building.

Brunton is hopeful other branches will make a similar contribution.

"It might be a piece of equipment, it might be a piece of art, or it might be a studentship or something like that: things that we can't really afford to do ourselves."

MARK WRIGHT

Dental School's redevelopment at a glance

A new 8,000 square-metre building is being built next to the existing Walsh Building to house clinical services, including radiology, oral surgery, paediatric dentistry, undergraduate clinics and orthodontics.

218 new dental chairs will be installed.

Construction should be finished about mid-2018, allowing the Walsh Building to be vacated and refurbished to house research laboratories, academic offices, student support and teaching spaces.

A 1,425-square-metre glass atrium will link the two buildings.

Enrolments are expected to lift from 85 to 96 new students, with more than 600 undergraduate and graduate students in total.

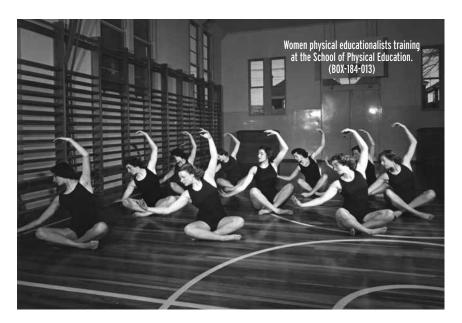


HOCKEN LEGACY

In 2019 the University of Otago will celebrate its 150th anniversary. As this milestone approaches, the *University* of *Otago Magazine* is looking back over the years, drawing on photographs from the Hocken Collections.

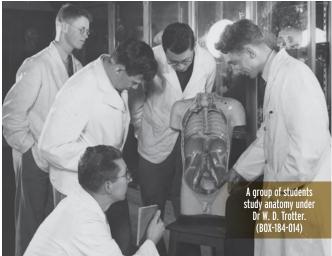
In 1949 a series of promotional photographs were taken at the University by the then Prime Minister's Department, showing life on campus at that time.



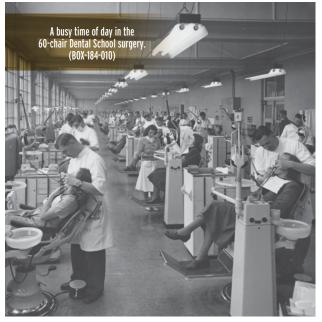














SHAPING THE FUTURE

together

This year's Annual Appeal is raising funds to support seven special projects that are making a difference to families and communities throughout New Zealand, translating academic endeavour into real-world solutions for better and healthier lives.

Every dollar counts. Your contributions - large and small - all help us in this important work. Thank you for your ongoing support.



Global Student Exchange Programme

This programme enables students to spend one or two semesters at one of the University's 100-plus international exchange partners as part of their Otago degree, giving them life-changing experiences, new connections, lifetime friendships and personal growth.



Aquavan for marine conservation

Led by marine educators and scientists, the Aquavan programme will engage schools, teachers and community groups in the diversity of New Zealand's marine flora and fauna, enabling a better understanding of the wider ecosystem and how land and freshwater management affects our coastal environment.



Blood tests to detect Alzheimer's

With improved health care and better nutrition, people are living longer and enjoying healthier lives. Yet with longer life comes an increased risk of Alzheimer's disease. This disabling condition requires better means of early detection – a recent discovery by the Brain Health Research Centre may address this.



Advances in child cancer research

Every week, three New Zealand children are diagnosed with cancer. These children often undergo intensive treatment for prolonged periods of time. Te Aho Matatū, the Centre for Translational Cancer Research (CTCR) is aware of the need to personalise these treatments as closely as possible to each patient's disease. Working with Healthier Lives and REACH Child Cancer, CTCR is extending its research on personalised cancer markers to include child cancer.



Aspire programme for youth confidence

The Aspire Programme is a student-led community initiative in which Year 8 pupils from low-decile Dunedin schools are hosted on the Dunedin campus by University of Otago student volunteer coaches. Using interactive learning activities, the coaches spend their Friday afternoons working alongside the school students, helping them to develop greater confidence, better relationships and unlock learning through fun and engaging experiences – and demystifying the University environment.



Legal services mapping project

Around one in three New Zealanders experience a problem that may require legal services each year. Finding help can be difficult. One problem is the lack of a centralised source of information. The Legal Services Mapping Project will provide vital resources about the accessibility of legal services in New Zealand.



Undergraduate entrance scholarships

Every year a new group of young, gifted students emerge with exceptional academic potential, but also real financial barriers to attending university. Course and tuition fees, residential college costs and living expenses quickly add up. These scholarships aim to directly address this issue.

SHAPING THE FUTURE

together

Yes!

I would like to support the University of Otago and its ongoing programmes.
Your gift can be directed to any one of the following areas:
Alzheimer's Research Project
Aquavan Marine Conservation Project
Childhood Cancer Research Project
Global Student Exchange Programme
Legal Services Mapping Project
Student Volunteer Aspire Programme
Undergraduate Entrance Scholarships
Other
Amount of gift
\$50 \$100 \$250 \$500 \$1000
or my choice is \$
Payment options:
 Make a one-off donation or set up a monthly donation using our secure giving page at: alumni.otago.ac.nz/annual-appeal-donate
2. Charge my credit card: Visa Mastercard
Card number
Expiry date / CVC#
Cardholder's name
Signature
3. Pay by cheque
I enclose a cheque payable to "The University Foundation Trust"
For residents in the UK, please send this form and your donation to:
Chapel & York PO Box 50
Lingfield RH76FT
United Kingdom
For residents in the USA who wish to make a tax deductible donation, please visit:
Alumniuoa.com Or email, Mr Neil Matheson neil.matheson@hhealth.com
For residents in New Zealand and Rest of the World, please send this form and your donation to:
Development & Alumni Relations Office University of Otago
PO Box 56
Dunedin 9054 New Zealand
Should you require any further information please follow this link:
otago.ac.nz/alumni/donate/annual-appeal or contact us at email: development@otago.ac.nz
Name
Address
- "

Thank you for your support.

Reunions Events

2017

Saturday, 6 May - London Sunborn London Yacht Hotel For alumni with a medical interest 5.30-7.30pm

Wednesday, 10 May - London Merchant Taylor's Hall 30 Threadneedle Street All alumni and friends welcome 6.00-6.30pm start

Saturday, 13 May - Frankfurt Venue tbc All alumni and friends welcome Early evening

Phys Ed class of 1967 reunion 14-16 June, Dunedin

Dental class of 1967 reunion 14-16 June, Dunedin

Larnach Ball 50th anniversary reunion 8-9 September, Dunedin

Medical class of 1977 reunion 21-24 October, Wellington

Medical class of 1967 reunion 4-8 December, Dunedin

Medical class of 1980 reunion date tbc, Wellington

2018

Medical class of 1964 reunion 22-25 March, Tongariro National Park

Dental class of 1968 reunion 22-25 March, Dunedin

Medical class of 1983 reunion 23-25 March, Hawkes Bay

Selwyn College 125th anniversary reunion 23 - 25 March 2018, Dunedin Please contact Selwyn warden Ashley Day at warden.selwyn@otago.ac.nz to indicate your interest in attending.

Medical class of 1998 reunion 4-6 May, Dunedin

Medical class of 1968 reunion 27-29 November, Dunedin

2019

Unicol 50th anniversary reunion November, Dunedin

For more information

Visit: otago.ac.nz/alumni/events For reunions, email: reunions.alumni@otago.ac.nz

For events, email: functions.alumni@otago.ac.nz Phone: +64 3 479 4516



Alumni get-together, Hong Kong, 12 January, 2017. Find out more about the Hong Kong alumni chapter activities at www.facebook.com/otagoalumni.hk



The Friends of Otago reception at the Combined Sections Meeting (CSM) of the American Physical Therapy Association (APTA), 16 February, 2017, San Antonio Texas: From left: Dr Cathy Chapple, Dr Catherine Patla, Professor Leigh Hale and Dr Stanley Paris.





Phys Ed class of 1977 reunion, Dunedin, 27 January 2017.

Hayward Rose



To mark its 25th anniversary this year, Hayward College is launching its own rose.

The *Hayward College (SOMausred)* has been bred for the college by Rob Somerfield, of Glenavon Roses, Tauranga. It is a medium-height bushy rose, with dark glowing red blooms in an old–fashioned style – one to a stem in small clusters.

College warden Pauline Donovan says the rose was selected in November 2015 and will be available in time for bare-root rose deliveries in June/July 2017.

It can be purchased from Tasman Bay Roses, by either mail order or online (*tbr.co.nz*), and in Nichol's Garden Centres in Dunedin, Invercargill and Cromwell via their 2017 Rose Catalogue (*nicholsgroup.co.nz*).

Officially opened in 1992, Hayward College was developed from the former Queen Mary Maternity Hospital and named after brother and sister Otago alumni Jock and Vera Hayward, in recognition of their services to education and health in Otago. Jock Hayward OBE held the position of University Registrar from 1948 to 1974.

A formal rose planting ceremony will be held in the college grounds in June/July to celebrate the 25th anniversary.

otago.ac.nz/hayward

Working for Otago

Making connections in the UK

The UK/Europe Alumni Network provides a welcoming environment for Otago graduates. It actively recruits alumni, updates its membership register, circulates relevant university information and hosts University-themed events. It fosters close links with the Development and Alumni Relations Office, and other chapters worldwide.

Kirsty Fiddes (BDS, 1993)



After graduating from Otago's Dental School Kirsty worked in Wellington for five years before joining The Dental Surgery in London in 1999. She is an active member of the New Zealand Business Women's Network and a founding member of the

New Zealand Dental Society in London.

Studying at Otago continued a family tradition for Kirsty, and she now enjoys being Chair of the Otago Alumni UK/Europe Chapter and fundraising for University projects. Her involvement stems from a belief that "being part of the University family involves reinforcing its common beliefs and goals".

Jennifer Moates (LLB, 1981)



Jenny developed a love of the law of tort while at Otago and has spent the last 30 years putting it to good use as a lawyer in the City of London, predominately advising the insurance industry. She heads the catastrophic injury team at BLM and has been instructed in a number of high profile

fatal accident and catastrophic injury claims.

She is committed to raising the profile of Otago University in the UK, as well as assisting alumni to establish their careers and lives there. Jenny is secretary of the Otago University Trust UK.

Duncan Blaikie (MB ChB, 2000)



Since 2009, Duncan has been a solicitor at Slaughter and May, London, working in intellectual property and technology law. Duncan trained in medicine at Otago and worked at Dunedin Public Hospital before heading to Cambridge University, where he transitioned to law. He was a

professional rugby player, for the Highlanders and Chiefs.

"All Otago alumni I speak with look back fondly on their time at the University, and most mention the people they met as a particular highlight. The UK chapter helps alumni develop and maintain links to the wider Otago network, and provides a focal point for their re-engagement with the University."



Leighton Cassidy (BSc, LLB, 1997) Leighton is a partner at international law firm Fieldfisher, where he heads the intellectual property protection team. He loved his time at the University of Otago and playing rugby for the University A team.

"Involvement with the UK alumni chapter has allowed me to connect with a new generation of Otago alumni and those in Otago's impressive network of alumni working in leading UK and international businesses. We should be proud of the successes of our alumni in the UK and I have been delighted to play a small part in maintaining our wonderful network."



Sir Paul Beresford (BDS, 1970) Sir Paul is a Conservative Party politician and MP for the Mole Valley constituency, and was knighted in 1990 for services to inner city rehabilitation. He now sits on

13 parliamentary committees, chairs the House of Commons Administration Committee and is a member of the House of Commons Commission. He was Parliamentary Under Secretary of State at the Department of the Environment from 1994 to 1997. He is also a former chairman of the Otago UK alumni chapter. Sir Paul continues to practise dentistry part-time, "thanks to an Otago BDS with a special interest in restorative cosmetic dentistry".



Alistair Wishart (LLB, BA (Hons) 2000) As a student Alistair was actively involved with the OUSA, and is now a counsel at Vinson and Elkins LLP, advising on energy, petrochemical, water and other infrastructure projects. He is ranked in the Chambers UK Guide and Legal 500 UK.

"The UK is a long way from Otago, but many alumni pass through or settle here. It is always nice spending time with Otago people and our alumni events are a great way to maintain ties."



Dr John Zinzan (BDS, 1969) After qualifying John moved to London to work in dentistry; in 1974 he established the Zinzan Dental Practice in Knightsbridge.

In 1990 he invited more than 700 UK and Europe-based graduates to the first Otago Alumni event at New Zealand

House, and subsequently helped maintain a database of UK-based alumni and hold regular Otago events. In 2003 he

was the inaugural recipient of the University of Otago Medal for Outstanding Alumni Service.

"I spent five exceedingly happy years in Dunedin, meeting lifelong friends. With alumni numbers growing it seemed a very good idea to set up a committee here in London to organise annual meetings of Otago graduates and to help maintain similar friendships."



Kyla Chapman (BCom (Hons), BA, 2001).

Kyla is technical operations leader for International with the global broking and advisory firm Willis Towers Watson and, since 2013, has also been treasurer of the Otago

University Trust (London), involved in the running of the annual fundraising event held at historic UK landmarks.

"I enjoyed my time at Otago immensely and made many lifelong friendships. I love being able to work with other like-minded people in London in keeping the memory of those days alive and hope to benefit future generations in the process."

To contact the association, please email *ukeurope.alumni@otago.ac.nz*

@otagoalumni email address

Unfortunately, due to circumstances beyond our control, the alumni email forwarding service provided via Development and Alumni Relations' Your Otago Link will be discontinued from 1 July 2017.

Access to Your Otago Link is not affected.

If you have created and used an @otagoalumni.ac.nz email forwarding address, please let your contacts know an alternative address.

If you have any questions, please email database.alumni@otago.ac.nz

Alumni benefits

eNewsletters for Otago alumni

There are a range of departmental e-newsletters available for Otago alumni. These include:

- Classics
- Economics
- History and Art History
- · Music · Otago Business School
- LdW
- Pharmacy
- Anatomy
- Pilatiliacy
- Physical Education, Sport and Exercise Sciences.

Please email database.alumni@otago.ac.nz

GoinGlobal: career development for alumni

The University of Otago brings its Going Global subscription to Otago alumni, students and staff, offering access to 80,000 pages of career and employment information on topics such as:

- current employment outlook
- hiring trends
- job search resources
- executive recruiters
- staffing agencies
- work permit regulations
- salary ranges
- resume/CV writing guidelines
- professional and social networking groups
- trade associations
- interview
- cultural advice.

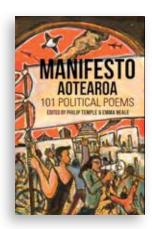
You can join GoinGlobal by visiting otago.ac.nz/alumni/benefits

Connect with Otago Alumni and Friends on social media

facebook.com/otagoalumni linkedin.com/groups/79350 instagram.com/otagoalumni

eConnect newsletter

Stay up to date with the latest alumni news, events, profiles and competitions delivered to your email inbox. Sign up for eConnect by emailing database.alumni@otago.ac.nz or phone 0800 80 80 98 and ask to update your details.



Manifesto Aotearoa

101 political poems

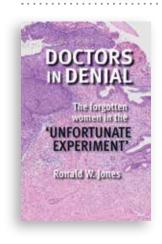
Philip Temple and Emma Neale, editors

New Zealand poets from diverse cultures, young and old, new and seasoned, from the Bay of Islands to Bluff, rally for justice on everything from a degraded environment to systemically embedded poverty; from the long, painful legacy of colonialism to explosive issues of sexual consent.

Communally these writers show that political poems can be the most vivid and eloquent calls

for empathy, for action and revolution, even for a simple calling to account.

Philip Temple is an award-winning author of fiction and non-fiction, often on subjects associated with New Zealand history and the natural world. Emma Neale has written six novels and a number of poetry collections, and has edited anthologies of both short stories and poetry.



Doctors in Denial

The forgotten women in the "unfortunate experiment"

Ronald W. Jones

When Dr Ron Jones joined the staff of National Women's Hospital in Auckland in 1973 Professor Herbert Green's study into the natural history of carcinoma in-situ of the cervix (CIS) had been in progress for seven years. This study of women with CIS - without their consent - involved observing, rather than definitively treating them. Many women subsequently developed cancer and some died.

In 1984 Jones and senior colleagues Dr Bill McIndoe and Dr Jock McLean published a scientific paper that exposed this and, in a public inquiry in 1987, Judge Sylvia Cartwright observed that an unethical experiment had been carried out on large numbers of women for over 20 years.

However, since that time there have been attempts to cast Green's work in a more generous light. Jones, a now-retired obstetrician and gynaecologist and former clinical professor, is setting the record straight by telling his story – a story of unnecessary suffering, misplaced loyalties and of doctors in denial of the truth.

For further information: Otago University Press | otago.ac.nz/press | university.press@otago.ac.nz

Books by Otago alumni

Harry Holland, Robert Burns: Poet and Revolutionist, edited by Dougal McNeill, Steele Roberts, August 2016.

A Magpie Collection: Neighbours with Feathers, by Liliane Parkinson, self-published, September 2016.

Africa's Media Image in the 21st Century: from the "Heart of Darkness" to "Africa Rising", edited by Melanie Bunce, Suzanne Franks, Chris Paterson, Routledge, London 2016.

Getting It Right: Poems 1968-2015, by Alan Roddick, Otago University Press, September 2016.

Biogeography and Evolution in New Zealand, by Michael Heads, Taylor and Francis/CRC, Boca Raton FL, September 2016.

An Unfinished Portrait: A Journey around my Mother, by Miriam Frank, Minerva Productions, November 2016.

Springer Handbook of Bio-/Neuroinformatics. edited by N. Kasabov, Springer, 2014.

Collaborative and Indigenous Mental Health Therapy: Tataihono - Stories of Māori Healing and Psychiatry, by Wiremu NiaNia, Allister Bush, David Epston, Routledge, December 2016.

Digital Leisure Cultures: Critical Perspectives, edited by Sandro Carnicelli, David McGillivray, Gayle McPherson, Routledge 2017.

An Intelligent Career: Taking Responsibility for your Work and your Life, by M.B. Arthur, S.N. Khapova and J. Richardson, Oxford University Press, January 2017.

Rock and Roll: Selected Poems in Five Sets, by Mark Pirie, Bareknuckle Books, Brisbane, Australia, 2016.

Queen Alexandra's Birdwing Butterfly: Ornithoptera alexandrae, by David K. Mitchell, Southdene Sdn. Bhd, Malaysia, May 2016. 35 Short Poems, by C.A.J. Williams, The

Buttress Press, Wellington, December 2016.

Media Exposure During Infancy and Early Childhood: The Effect of Content and Context on Learning and Development, edited by R. Barr and D.L Linebarger, Springer, New York, 2016.

The Miles Between Me, by Tony Nealie, Curbside Splendour Publishing, April 2016.

In Pastures Green: North Taieri Presbyterian Church 1866-2016, edited by Huia Ockwell, Mosgiel North Taieri Presbyterian Parish, September 2016

The Grand Electrification of the South, by Gay Buckingham, The Power Company Limited, Invercargill, December 2016.

Tonsils to Toenails: the Life of Pat Cotter, Christchurch Surgeon and Tree Farmer, by Claire Le Couteur, The Cotter Medical History Trust, December 2016.

Alumni:

If you have recently published a book email mag.editor@otago.ac.nz

... the Larnach Castle ball of '67?

eadlined in local media at the time as the "social event of the year, if not the decade", three University of Otago students hosted a hugely successful ball at Larnach Castle in September 1967 – the first formal ball held at the castle since 1906.

Now, 50 years on, a reunion ball is to be held on the same September date – the 9th – coinciding with and celebrating 50 years since Dunedin's Barker family took ownership of the castle.

Built by William Larnach in the Scottish baronial style, the castle is located high on Otago Peninsula. It took 200 men three years to complete the shell of the structure by 1876, and craftsmen continued working for a further 12 years embellishing the interior.

However, by the time Margaret and Barry Barker bought the castle in 1967 it was in state of near ruin with significant water damage to the once stately interior. Undeterred, the three enterprising students – Eion Edgar (now Sir Eion), Alistair Edmond and Russell Davis (now deceased) – decided it would be the perfect setting for a ball, and they set about making this happen.

With an army of willing helpers – and with the blessing of the Barkers – they spent weekends at the castle cleaning and painting the ballroom which had, until quite recently, been used to pen sheep! Toilet facilities were especially installed by Mr Barker just in time for the event. The guest list of about 400 comprised students and a few old school friends who travelled from around the country to attend.

While it was expensive at \$12 per ticket – compared to the usual \$3 or \$4 for a student ball – it was a "splendid occasion", says Sir Eion. Guests were collected by buses from their pre-ball events, driven to the castle where they drank sparkling wine, enjoyed a banquet meal and danced to live music until 4am. Student hostels granted special late passes for the event.

In true baronial style, the ball began with pipers leading a grand march into

the ballroom where huge log fires were burning. The banquet was provided by the University Union caterers and transported to the castle as there were no suitable kitchens on site. Crayfish, chicken and suckling pig were served on the castle balcony. The attire was formal with men in black tails and most women in long gowns with white gloves.

"It was a magical night that we have never forgotten," Sir Eion says.

Larnach Castle Executive Director Norcombe Barker says the family was very grateful for the work the students did to bring the ballroom up to a standard suitable for holding this event, the first in what was to become a new tradition of balls at the castle. An annual winter ball is now held in the castle's beautifully restored ballroom, with guests in Victorian attire.

"So, in planning our year of 50th anniversary events, a reunion of this first ball seemed a very appropriate – and exciting – celebration. I contacted Sir Eion and was very pleased that he agreed."

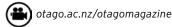
With no guest list and only a few old photos to hand, Sir Eion and Alistair Edmond have been working to track down as many of the former ball-goers as possible.

"The response has been brilliant – very enthusiastic," Sir Eion says, "but there are still a few places left so we would be delighted to hear from anyone else interested in reliving this event. It will be a wonderful night."

If you were at the 1967 ball and would like to attend the reunion, please contact Sir Eion Edgar on 021808099 or email eion.edgar@forsythbarr.co.nz

The ball will be preceded by an informal get-together on Friday 8 September.

KAREN HOGG





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