

UNIVERSITY OF OTAGO

MAGAZINE

NOVEMBER 2014

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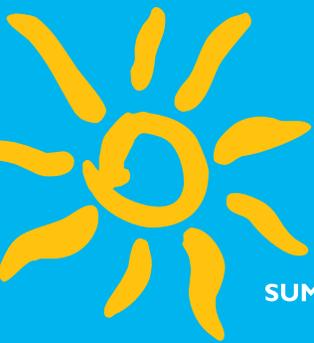
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Since assuming the role of Vice-Chancellor three years ago, I find myself talking about the University to anyone who will stand still long enough to listen. In any given week, I talk to Ministers, officials, Otago staff, students, parents, alumni, newspaper reporters and even random people on airplanes or on the street. When I stop and listen to myself, I sometimes wonder, is there actually any substance to what I have to say about this University? Fortunately, every time I experience this existential crisis, something happens to remind me that all this talk is not just hype.

This issue of the Magazine is another cogent reminder about why I can't stop talking about Otago. Throughout this issue, you will read about the remarkable achievements of our staff, students and alumni. You will have the opportunity to learn more about Professor Greg Cook's ground-breaking research on TB, about our two new national Centres of Research Excellence, about the unprecedented success of the rowing club and much, much more.

But there are also stories behind some of the stories in this issue of the Magazine that continue to remind me that we are all part of a truly spectacular and inspiring community. In this issue you will have the opportunity to read about Professor Parry Guilford. Professor Guilford is the scientific director of the most successful company ever to spin-out from a New Zealand university, Pacific Edge Limited. This company, which is the only New Zealand University spin-out on the main board of the New Zealand Stock Exchange, develops

new techniques for the early diagnosis of many forms of cancer. We are very proud that it continues to be based on our Dunedin campus, while having an increasingly international reach including a diagnostics laboratory in the United States.

Professor Guilford is also a research professor in the Department of Biochemistry at Otago. He is part of the research group that identified the gene responsible for an aggressive form of stomach cancer that plagued a Māori community in the Bay of Plenty for decades. His discovery has led to diagnosis and treatment that has saved numerous lives in that community. The same gene has now been identified in 350 additional families around the world. At this stage, it would be impossible to count the number of lives this research has saved.

There is another story of success in this issue of the Magazine that warrants special mention. Earlier this year, Dr Karyn Paringatai received the Prime Minister's Supreme Award for Tertiary Teaching Excellence, making 2014 the third year in a row when an Otago academic has been awarded this prestigious teaching prize.

Excellent teaching is not new to Otago, but there are several remarkable things about Dr Paringatai's story. Very rarely does an academic win this kind of award so early in their career. Less than a year after receiving her PhD, Dr Paringatai has distinguished herself as a gifted teacher. The other remarkable thing about this story is the way in which she teaches. Dr Paringatai has



pioneered a new method of teaching Māori performing arts that is based on pre-European Māori teaching methodologies. In her classroom, Dr Paringatai immerses students in the dark, helping them to focus on what they hear (rather than what they see) as they learn the lyrics and tunes to haka and waiata.

But what makes Professor Guilford's and Dr Paringatai's stories particularly poignant is the way in which they are related. In 2009, in the middle of her PhD, Karyn Paringatai – whose whakapapa traces back to the East Coast – tested positive for the gene for stomach cancer. In June of 2010, she made the bold decision to have her stomach removed – a potentially life-saving operation. So the fact that she is here today, inspiring a whole new generation of Otago students is, quite literally, due to research conducted by Professor Guilford and his team at Otago.

In the end, this is what the University of Otago is all about – remarkable researchers, remarkable scholars and remarkable people who do some pretty remarkable things.

I, for one, will continue to talk about this fine university to anyone who will stand still long enough to listen.

A handwritten signature in black ink that reads "Harlene Hayne". The signature is written in a cursive, flowing style.

Professor Harlene Hayne

Vice-Chancellor, University of Otago

CoRE focus

The University of Otago will be a key player in new Centres of Research Excellence.

“It’s hugely positive for the University to have recognition through hosting or co-hosting two CoREs and having strong, powerful and tangible partnership in five of the six CoREs.”

Reflecting on Otago’s selection as the host of one Centre of Research Excellence (CoRE) and the co-host of a second, Deputy Vice-Chancellor (Research and Enterprise) Professor Richard Blaikie says he is reminded of New Zealand Nobel Laureate Alan MacDiarmid.

“When he was asked how do you get a Nobel prize, he replied: ‘You have a good idea, you get the right people together and you work, work, work.’ It’s a similar thing with a CoRE.”

Otago will host the Dodd-Walls Centre for Photonic and Quantum Technologies, with Associate Professor David Hutchinson, from the Department of Physics, as director, and will co-host Brain Research New Zealand – Rangahau Roro Aotearoa with the University of Auckland. Professor Cliff Abraham

(Psychology) will be in a co-director role with Professor Richard Faull (Auckland).

Blaikie says it is recognition for the efforts of many.

“We’ve got outstanding academic and professional staff to support these CoREs. We highly value the contribution they make, not only to the technical elements of the research, but also the professional processes needed to ensure that we properly manage the significant amounts of funding that flow.

“These centres typically will be funded at the level of about \$5 million per annum of taxpayers’ money so stewardship requires efficient, but robust processes,” he says. “Governance and the oversight elements are important and if the Tertiary Education Commission and the selection panels didn’t have confidence in our processes and structures they wouldn’t fund these CoREs.”

Blaikie says the Dodd-Walls Centre for Photonic and Quantum Technologies represents national recognition of leadership in that field.

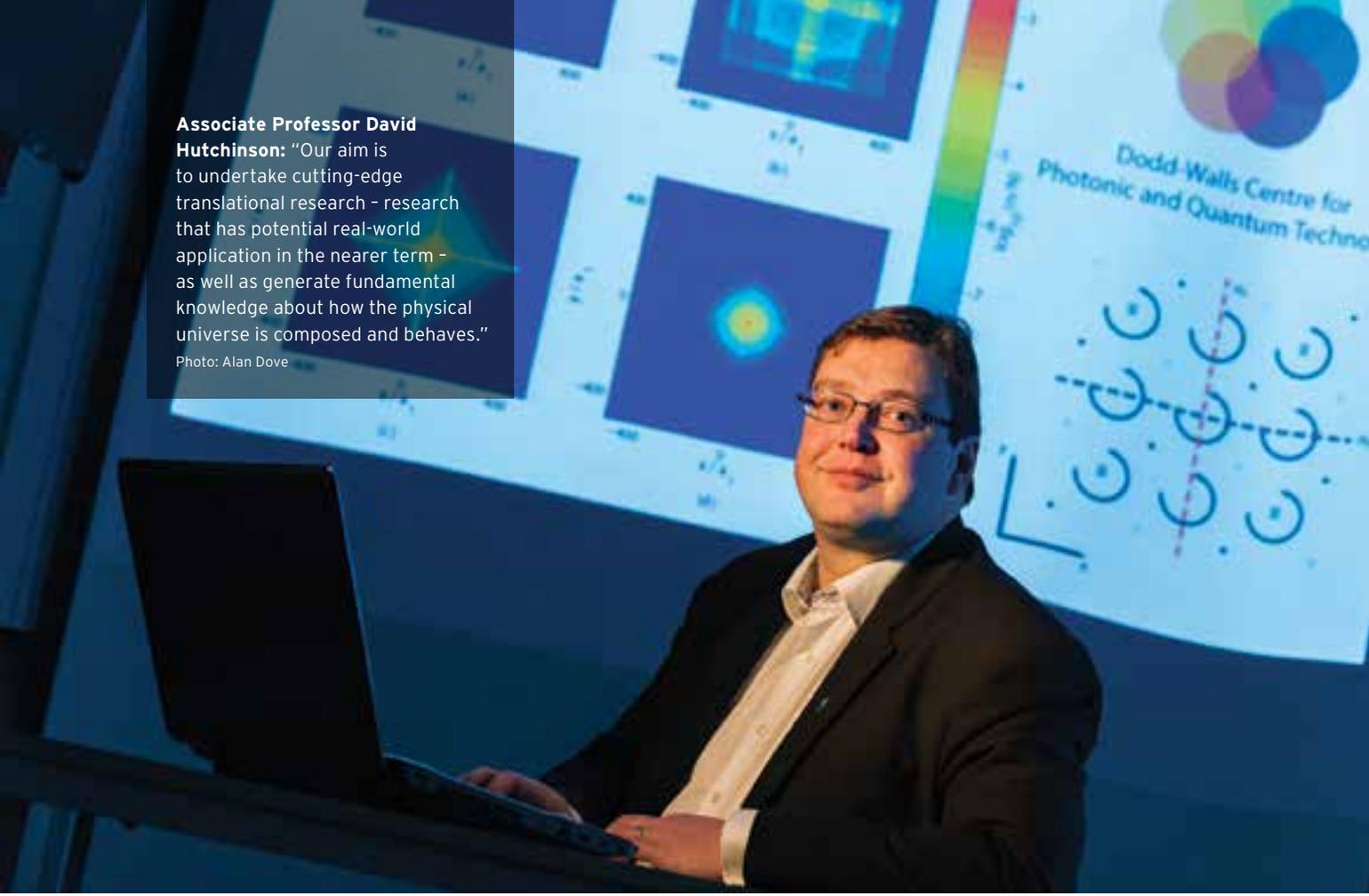
“We will be leading a strong partnership in a high-tech area so that’s got huge opportunities, not only for pushing boundaries in knowledge in the powerful world of quantum technologies, but also to develop applied ideas to new commercial technologies.

“New Zealand is very good at creating niche companies that go out into a global market place.”

Blaikie says Brain Research New Zealand – Rangahau Roro Aotearoa will be an excellent example of the importance of partnership in CoREs.

“It will be truly co-hosted and co-led in a very transparent partnership between the University of Otago and the University of Auckland. It will nicely cement local, regional and national links, and gives more opportunity for a global presence in this area.”

Otago continues to be a strong partner in CoREs based at other institutions. For example, the MacDiarmid Institute and its focus on advanced materials and nanotechnologies, and the Medical



Associate Professor David Hutchinson: “Our aim is to undertake cutting-edge translational research - research that has potential real-world application in the nearer term - as well as generate fundamental knowledge about how the physical universe is composed and behaves.”

Photo: Alan Dove

Device Research Institute, based in Auckland.

“Rather than one institution reinventing what others are already doing and trying to compete with them, there is much more to be gained from learning from them and bringing our knowledge and strengths into that.”

Dodd-Walls Centre for Photonic and Quantum Technologies

Named after two of New Zealand’s pioneering researchers in quantum physics, Professors Jack Dodd and Dan Walls, the Dodd-Walls Centre for Photonic and Quantum Technologies aims to be a world-class collaborative research network, building on New Zealand’s internationally acknowledged strength in the fields of quantum optics, photonics and precision atomic physics.

Associate Professor David Hutchinson (Physics), who has been named director of the new CoRE, says the Dodd-Walls Centre has already been running for about seven years as a collaboration

between Otago and the University of Auckland, involving a group of leading researchers.

Achieving CoRE status means expansion to encompass researchers from five of New Zealand’s universities.

“More importantly, we can now develop the work performed by excellent individuals, with project-based funding such as a Marsden, into a coherent whole which can have real national and international impact,” he says.

“Photonics is the science of light at the most fundamental, quantum level. The centre’s research concentrates on the manipulation of light and the control of matter at the atomic scale through the use of light.

“Our aim is to undertake cutting-edge translational research – research that has potential real-world application in the nearer term – as well as generate fundamental knowledge about how the physical universe is composed and behaves.”

At one end of the range there is an Otago research lab which uses laser light

to trap and hold single atoms with the aim of bringing them together to see how they interact. The objective is to have complete control over the atoms so they can carry out what is effectively quantum chemistry, working with the very building blocks of matter.

At the other end of the scale there are researchers developing fibre-optic strain gauges which could be used to measure when buildings are under stress in earthquake-prone parts of the country.

Optical technologies research has applications in areas such as improved detection of bacteria in food products and also the development of advanced medical imaging, using light to probe deeper into the surface of skin to detect cancer.

“You get a different ‘signal’ from cancerous tissue to non-cancerous. Different types of tumour give back different signatures,” says Hutchinson.

“It is also exciting to see potential new technologies coming out of the fundamental work being carried out in the centre.” This includes using

“By bringing together the technologies and expertise from around the country, we will produce new streams of sophisticated and advanced research with a long-term translational focus to address this key health issue for New Zealand.”

Otago’s ultra-cold atoms expertise in the development of precision gravimeters and tiny gyroscopes, and using high performance optical filters that were developed for quantum computing being investigated for medical imaging.

Hutchinson says the centre will also educate and mentor highly-skilled individuals to continue the work in this field, and provide pathways for commercialisation of research and career development.

They already use their successful Lighthouse Platform to engage with companies across New Zealand that use photonics or light, either in fabrication or as part of their business.

Alongside that, Hutchinson expects the CoRE to help generate more new technology and start-up companies.

“We might take an idea developed to solve a problem in our research labs and get a company working in the field to develop it for commercialisation. We do the ‘R’ and they do the ‘D’.”

It also allows them to develop career pathways for graduates by letting companies know who is entering the job market and the skills they offer.

“It’s about career pathways and keeping these high-tech people, who cost a lot of money to train, in New Zealand.”

There are also plans to develop education outreach through having an educator in a Centre for Illumination at Otago Museum and take programmes to other museums such as Te Papa and the Auckland War Memorial Museum.

“To top it off, next year is the International Year of Light and so wonderful timing to launch this new

CoRE and its associated education programmes.”

Brain Research New Zealand - Rangahau Roro Aotearoa

Brain Research New Zealand – Rangahau Roro Aotearoa has a clear vision: to enable New Zealanders to age well with a healthy brain.

It will bring together the internationally recognised research strengths of both the University of Otago and the University of Auckland, which will co-host the CoRE, under the leadership of co-directors Professor Cliff Abraham (Otago) and Professor Richard Faull (Auckland).

Abraham says they have been wanting to generate this collaborative effort for some time.

“Our aim is to understand the biology of the ageing brain, and develop new therapies and better clinical and community care to enhance lifelong brain health for all New Zealanders.

“We thought a jointly hosted centre would be the most effective – as well as providing a signal that this is a truly national effort.”

Abraham says it was decided to focus on ageing-related neurological disorders because it is a major problem for most western societies.

“By 2036 one in four New Zealanders aged over 65 will be disabled by an ageing-related brain disorder.

“These disorders are accompanied by immense personal, social, economic and health-care costs that will increase quite dramatically with time. Direct health-care costs associated with these disorders are already estimated to be over \$1 billion per

year, not to mention the huge physical and emotional strains placed on individuals, family and whānau.”

Brain Research New Zealand will draw the country’s world-class brain research capability into a cohesive national team involving the Centre for Brain Research at the University of Auckland, the Brain Health Research Centre at the University of Otago, AUT University and the New Zealand Brain Research Institute in Christchurch. The latter involves both the University of Canterbury and the University of Otago.

“Both Otago and Auckland have interests in stroke and Alzheimer’s disease, Huntington’s disease and Parkinson’s disease. Among other strengths, Otago has the nation’s only academic neurosurgery unit, while Auckland hosts the Human Brain Bank which is a significant national and international resource that is available for collaborative research,” says Abraham.

“The New Zealand Brain Research Institute has a strong expertise in Parkinson’s disease research and the group at AUT has strengths in epidemiology and public health, particularly around the area of stroke and traumatic brain injury.”

As a result Brain Research New Zealand – Rangahau Roro Aotearoa forms a grouping of about 70 people working as principal investigators or associate investigators.

“Many are clinicians, which is a real advantage, because we’re keen to pursue translational research; that is, research that ultimately will have real-world benefit in the clinic.”

The CoRE will focus on four main themes: ageing and disease mechanisms, disease biomarkers, harnessing brain plasticity, and testing new therapies and lifestyle interventions, as well as public dissemination of new findings and information relating to brain health during ageing.

The disease mechanisms research will look to understand more about ageing-related neurological diseases and develop new therapeutic approaches, while the disease biomarkers research will look at ways of identifying people with neuro-degenerative conditions earlier in the disease course so interventions can start sooner.

Abraham says finding ways to harness the brain's natural plasticity could help keep or restore function and combat disease, perhaps through drugs or brain stimulation techniques.

“The brain is built to be plastic and modifiable so it can learn and adapt to the environment; similar mechanisms can be brought into play to respond to disease or injury.”

The interventions and outreach research will look at epidemiology, such as risk factors for stroke, as well as cognitive and lifestyle interventions. It will also examine areas such as health economics, and care and stimulation of the elderly in rest homes.

Abraham says the research will thus cover a whole range of analyses from cells and disease mechanisms, right through to human interventions and clinical trials.

“It's not just more of the same research. By bringing together the technologies and expertise from around the country, we will produce new streams of sophisticated and advanced research with a long-term translational focus to address this key health issue for New Zealand.”

MARK WRIGHT

Professor Cliff Abraham:

“Our aim is to understand the biology of the ageing brain, and develop new therapies and better clinical and community care to enhance lifelong brain health for all New Zealanders.”

Photo: Alan Dove



Labour of love

Distinguished Research Medal winner Professor Greg Cook is passionate about his work – and it is this passion that is driving him towards a breakthrough in the international fight against TB.

Long before Professor Greg Cook discovered science, he wanted to be an athlete like his idol, record-breaking runner John Walker.

Cook dedicated himself to the discipline of training, putting in the time and the miles to improve his performance.

As a teenager he was competitive at a national level, but unforeseen knee problems led doctors to advise him a running career was no longer an option. His dream of becoming the best was shattered.

“I was devastated, but perhaps this was a key moment as it drove me towards my other passion – science – and all my energy went in that direction,” says Cook.

At university, two of his biology professors helped to fuel that fire when they discovered microbial life living in thermal hot springs in Rotorua. When they started investigating to see if their findings could be useful in industry, Cook was hooked.

“There was academic interest in extremophilic bacteria, but it turned out that the enzymes from these bacteria – extremozymes – had incredible potential as biological catalysts in industrial applications. That combination really captured my imagination and I think it still appeals to young researchers today.”

Cook should know. As head of a team leading the world in research into the biology of life forms living in extreme conditions, he’s just been awarded the

University of Otago’s highest research honour, the Distinguished Research Medal. His pioneering work has recently led to a potential breakthrough into drug treatment for such fatal diseases as tuberculosis, which is one of the world’s major killers.

Cook has even achieved a level of immortality, having had a bacterium named after him – *Amphibacillus cookii* – and having inspired new generations of students at his research lab within the Department of Microbiology and Immunology.

When Cook was a doctoral student, he worked at a thermopile research unit at Waikato University, visiting thermal springs around Lakes Rotorua and Taupo to collect samples of bacteria living in these extreme environments up to pH 10 and at temperatures around 100 degrees.

“Trying to isolate bacteria with novel metabolic properties was very exciting research and, even better, was the fact that we were one of the world-leading laboratories and many international researchers came during this period to learn from us.”

Cook now runs his own world-leading lab, but before that came years of postdoctoral work at Cornell University in the US, and King’s College London and the Krebs Institute (University of Sheffield) in the UK. While overseas he began to build his own international reputation and made contacts he is still collaborating with today.



Professor Greg Cook:
"Microbiology for me has
never been a job - I just
enjoy it too much."

Photo: Alan Dove

“The drug targets we are working on have the greatest potential to shorten the long treatment period for tuberculosis from months to weeks, which would be a fantastic outcome for patients. Watch this space.”

“Distance is a challenge for New Zealand scientists,” he says. “I made my connections by working overseas and I advise my students to do the same. Science is a very small world. Everybody knows one another. We’re all connected by a common thread and you become part of the scientific family by doing good work. Once you are known and respected people will want to work with you.”

Cook currently works with other world-class institutions around New Zealand and in the US, the UK and Germany, bringing a wealth of talent and funding to the University.

The last year has seen a perfect storm of scientific breakthroughs, published papers and publicity, culminating in the award of the Distinguished Research Medal.

Cook credits his team. “The reason we have won this award is not because of what we have done in the last two years, but because of what we have done over the last 20 years. Being a scientist is like being a runner. You have to be prepared to put in the time in the laboratory and, for a long time, there is no glory or medals.

“I often tell my postgraduate students that if you can survive the tough times when experiments are not working and remain focused with good work habits, then the rest will take care of itself. Passion is a key ingredient in this success – it is hard to maintain the drive if you don’t love what you do. Microbiology for me has never been a job – I just enjoy it too much.

“Part of my passion comes from a desire to work on something that is incredibly important for human health. That project for us is the fight against tuberculosis, which is one of the greatest threats to world health. In 1993 it was one of the first infectious

diseases declared by the World Health Organization to constitute a global health emergency.

“TB is killing around 5,000 people a day. Men, women and children are dying of tuberculosis, and big pharma have largely opted out of drug discovery, particularly diseases of poverty. This, of course, represents a wonderful opportunity for academic labs like my group to enter the war against TB.”

Cook’s team may have identified a key factor in its fight. “Our research is focused on trying to understand how human pathogens like *Mycobacterium tuberculosis* metabolise and grow in our bodies. If we can cripple this ability to metabolise, we are confident we can develop new strategies to treat TB patients.”

It has been a long-standing mystery as to how mycobacteria can survive in our bodies for extraordinarily long periods in the absence of growth and at low oxygen levels. Understanding this mystery is vital to eradicating the large human reservoir of latent TB. Microbes can lie dormant for years – as in TB patients whose disease appears to be under control – but can come to life when conditions are right.

Cook and his collaborators have worked out how mycobacteria can survive long periods with little or no oxygen. The bacterium can switch its cellular metabolism from a primarily oxygen-based one to one that uses fermentation for energy production instead, recycling molecular hydrogen until it can source sufficient oxygen to grow again.

Cook’s team now knows how the hydrogen energy system works and how it is regulated. They have already shown how intervention can reduce the

microbe’s survival rates a hundredfold. Now they hope that they can use their knowledge to disturb the survival process in *Mycobacterium tuberculosis*.

“The key thing we have to do now is to translate our findings into a new drug for TB. We’re on the verge of doing that with our latest compounds, but it’s still a little way off.

“Remember that out of 100 new potential drugs discovered, probably 99 will fail – it’s such a hard area. Then there is the time factor. One new drug took 18 years to reach the market. Testing is not trivial.

“However, drug-resistant tuberculosis disease is becoming such a problem and such a threat that we are starting to see a relaxation of rules around approval. A case in point is the first drug licensed for TB in 40 years – it took only seven years from discovery to use in humans, despite unexplained deaths in clinical trials.

“The drug targets we are working on have the greatest potential to shorten the long treatment period for tuberculosis from months to weeks, which would be a fantastic outcome for patients. Watch this space.”

While Cook would consider the discovery of a new drug to counter TB a career highlight, he takes even greater pride in his role in mentoring the 50 postgraduate students he has trained since starting at Otago in 1998.

“The greatest thrill I get out of science is watching my postgraduate students grow as scientists in my group and then go on to have outstanding careers. These students are my extended family and I consider them my greatest contribution to microbiology.”

NIGEL ZEGA

Gender justice

In an interview with Brigid Inder, the subject of her 2014 OBE for services to women's rights and international justice is never discussed. There is simply too much else to talk about - namely the work for which she received the honour - although the fact that such work is necessary says much about the persistence of gender-based injustice in today's world.

For 10 years Otago alumna Brigid Inder has been executive director of the Women's Initiatives for Gender Justice, an international human rights organisation formed in 2004 to monitor and advocate for gender-inclusive justice through the International Criminal Court (ICC). The ICC is the permanent international court set up in 2002 to try cases of crimes against humanity, genocide and war crimes in instances where national courts are unwilling, or unable, to investigate or prosecute such crimes.

In 2012, Inder was invited by the ICC's newly-appointed prosecutor Fatou Bensouda to take on the additional *pro bono* role of special advisor on gender. In this capacity she provides strategic advice to the ICC's Office of the Prosecutor on gender issues, including gender considerations within the analysis, investigation and prosecution of sexual and gender-based violence, and her initial task has been the development of a policy on sexual and gender-based crimes - a first for an international tribunal or court.

Inder's long career in advocacy, policy negotiations and hands-on experience with women and disadvantaged

communities has prepared her well for her work and this role.

"It brings together gender equality and justice issues," says Inder, "and enables me to influence the policies of an international institution and, ultimately, to help shape its investigations and prosecutions to ensure the inclusion of sexual and gender-based crimes."

From Dunedin, Inder graduated from the University of Otago with a Bachelor of Physical Education in 1987. She began working with the YWCA in the late 1980s and travelled on a scholarship to Bangladesh, where she was exposed to the impact of poverty and natural disaster on communities, particularly on women and children. She worked in Australia on HIV-related initiatives managing community health, HIV treatment and prevention programmes and was later appointed director of New South Wales' community legal centres, providing communities with access to legal advice and representation, as well as human rights education.

During this time Inder became deeply interested in women's human rights globally and the role of the UN as an international policy-making body.

She began attending sessions of the United Nations Commission on Human Rights (now the UN Human Rights Council) and was involved in several UN conferences advocating and advising governments on gender issues in relation to sexual and reproductive rights, women in armed conflict, HIV/AIDS and the rights of children.

In 2002 she was appointed executive director of the Women's Initiatives for Gender Justice (Women's Initiatives), cementing a relationship with the ICC that was to become twofold in 2012 on her appointment to the special advisor role.

The terrain of the Women's Initiatives is not for the faint-hearted: systematic rape, sexual slavery, sexual violence, torture, mutilations, and the conscription of child soldiers and use of children in armed conflict. Much of their work aims to build the capacity of, and partner with, women's rights and peace organisations in armed conflicts, advocating for domestic accountability for gender-based violence, more services for victims/survivors of these crimes, better laws prohibiting sexual violence and an end to armed conflict and pursuit of peaceful resolutions. They also work with the ICC

“We simply can’t wait until the conflict is over to move forward with accountability for the crimes. Communities affected by armed conflict are calling for an end to the violence and demanding accountability.”

Brigid Inder



to advocate for the inclusion of sexual violence within the investigations and prosecutions, usually arising in areas where the rule of law has broken down.

History, however, indicates that justice for gender-based war crimes is notoriously difficult to achieve. Inder points out that rape and other forms of sexual violence were historically conceptualised as being about protecting a woman’s honour – what it meant to be an honourable woman and what it meant for men to have an honourable wife. Rape was seen as indecent rather than as violent.

“In that sense we have come a long way, moving from the idea about a special respect for women to recognising women’s human rights, and ensuring the ability and rights of victims/survivors of sexual violence crimes to bear witness to these acts.”

It was only in the late 1990s – in the International Criminal Tribunals for Rwanda and the former Yugoslavia – that sexual violence was prosecuted as a crime against humanity.

Although important jurisprudence exists, the tribunals and the ICC have a mixed record in relation to crimes of sexual and gender-based violence. As a result of constant external advocacy – in large part by the Women’s Initiatives –

the ICC has included charges of sexual violence in more than 70 per cent of its cases. However, as Inder explains, while the court has an excellent charging record for these crimes, it has struggled, as have the Yugoslav and Rwanda tribunals, with proving the specific liability of the perpetrator who, as a commander or political leader, is often not present during the incidents of rape committed by soldiers or combatants under his command.

“In the recent Katanga judgment at the ICC, where Germain Katanga [leader of the Front for Patriotic Resistance in Ituri] was convicted of all of the crimes for which he was charged in relation to an attack on a village in eastern DRC, except for the sexual violence crimes and the crimes relating to the enlistment and conscription of child soldiers,” says Inder.

“This is an example of a subconscious, but clear, bias by the judges expecting something additional – something unique – to prove Katanga’s specific responsibility in relation to rape and sexual slavery committed by the militia group he commanded, which the judges did not require for the other crimes for which he was convicted.

“The chamber was satisfied that Katanga contributed to murder, destruction of property and pillaging

– all of which occurred during the attack. They believed the sexual violence witnesses, and stated that they believed the rape and sexual slavery had occurred, but they were not satisfied that Katanga’s contribution to the attack – which enabled the commission of the crimes for which he was convicted – also enabled the commission of acts of rape and sexual slavery.

“This case is emblematic of so many of the ways in which sexual violence is treated differently and where a higher standard is subconsciously required to satisfy the threshold of beyond reasonable doubt,” she says.

Unlike other international tribunals, the ICC faces the additional challenge of conducting investigations while conflict is continuing. Inder says this makes it enormously difficult for the court to access crime scenes and, because of widespread displacement, it also creates difficulties in locating potential witnesses.

“It makes witness security issues even more complicated, reducing the availability of documentary and forensic evidence, and the ability to follow up with individual witnesses who may be able to testify in support of charges. The impact of operating in areas of armed conflict can’t be underestimated.”

Inder also points out that, in its early days, the ICC's investigative strategy tended to rely too heavily on open-source material – NGO or UN reports – documenting sexual violence rather than witness testimonies and other direct, primary evidence to support the sexual violence charges. As a result, she says, more than half of the charges were dismissed before trial.

In the past few years the ICC's record has improved in this area. "Two years ago around 50 per cent of the charges for sexual violence were being successfully confirmed for trial. Now around 61 per cent of these charges are being confirmed."

It's in this area that Inder and the Women's Initiatives are very familiar. Together with in-country partners in the DRC (Democratic Republic of the Congo), the Women's Initiatives conducts a documentation programme interviewing victims/survivors of sexual and gender-based crimes and uses this data with domestic decision-makers and prosecutors, as well as with the ICC, to advocate for thorough investigations into these incidents.

"We have had a documentation programme since 2006 and, since that time, we have documented over 1,000 incidents of rape, sexual slavery, mutilations in the context of massacres, attacks on villages, large-scale military operations and individual attacks on women and girls in the margins of an armed conflict."

The Women's Initiatives also advocates for gender justice in domestic processes at the national level and Inder is looking forward in 2015 to working with female former child soldiers in

Uganda, assisting local partners in the development of an alternative rape law for Sudan, working with Libyan women's rights advocates for the establishment of services for victims/survivors of sexual violence, and to launching a new programme in the DRC aimed at strengthening local judicial processes in relation to sexual and gender-related crime.

"The ICC will always be limited in the number of prosecutions it can pursue," she says, "so we're moving towards pursuing domestic prosecutions with a pilot project focusing on one province in eastern DRC."

"Even though the conflict is ongoing, local courts and military tribunals exist and are operational to some extent.

Together with two other organisations, we are going to launch a programme that will train local lawyers and prosecutors in how to prosecute cases of sexual and gender-based crimes. This will also provide training for local judges so they are more informed about analysing the evidence, hearing testimony of sexual violence victims and witnesses, and are also aware of the international jurisprudence on these issues.

"We simply can't wait until the conflict is over to move forward with accountability for the crimes. Communities affected by armed conflict are calling for an end to the violence and demanding accountability."

Despite the territory being familiar, Inder admits the nature of her work can be harrowing.

"Reading interviews with women and girls describing their abduction by the LRA [Lord's Resistance Army in Uganda or South Sudan] or their abduction and

recruitment by other militia groups, or rape and sexual enslavement committed by armed forces or any number of militia groups in eastern DRC ... that can be very disturbing, and in ways that you don't initially notice. It's only later that you realise you've become sensitive to sounds or sudden movements, or that you're agitated by unexpected loud noises in ways that you didn't used to be. Of course, this passes, but it can creep up on you in ways you don't necessarily notice at the time. We try to be conscious of this, working on other programmes, talking with colleagues and, for me, music and exercise are all ways to deal with these issues so you don't become overwhelmed by the tragedy and brutality."

A good day at the office can be one of many things. "An indictment which includes sexual violence charges, progress in one of the local collaborative programmes, the inclusion of women in transitional justice processes, or women we work with standing for election."

Inder refers to growing support within Sudan for reform of the domestic rape law to comply with international standards, for example, or provincial leaders in eastern DRC passing an ordinance prohibiting mob violence and attacks against women accused of practicing "witchcraft".

"It's not all battling up hill without progress. Our local partners and the Women's Initiatives are seeing signs of progress within countries and at the ICC which makes this period an important juncture in many of our gender justice programmes."

REBECCA TANSLEY

"Reading interviews with women and girls describing their abduction by the LRA or their abduction and recruitment by other militia groups, or rape and sexual enslavement committed by armed forces or any number of militia groups in eastern DRC ... that can be very disturbing."

At the

Dunedin-based Pacific Edge Limited has become a biotechnology “start-up” success story, winning innovation awards and securing entry for its non-invasive Cxbladder diagnostic test into the lucrative US market.

Edge

Commitment to innovation and a beneficial relationship with the University of Otago, has kept Dunedin-based biotechnology company Pacific Edge Limited at the cutting edge of the domestic and international markets.

The company, which specialises in the development and commercialisation of non-invasive diagnostic tests for the early detection and management of cancer, was recently awarded the New Zealand Biotech Association’s top bioscience company award for 2014. The NZBIO, comprising members working in the industry, named Pacific Edge as the company most active in building the profile and credibility of biotechnology and biotechnology companies in New Zealand.

Chief executive David Darling says the award is another indicator of Pacific Edge’s steady growth towards being a “specialist, one-stop shop for bladder-related diagnostics”.

Since forming in 2001, the company has remained committed to developing products and new technologies for a more thorough understanding and earlier detection of tumours, to provide better patient outcomes, he says.

At around the same time, the human genome was first sequenced and Pacific Edge immediately recognised the potential for genetic research to underpin the development of “significantly better tools” for non-invasive cancer testing. Existing diagnostic tests were late-stage procedures and “as a result, the outlook for patients was poor”, he says.

Having secured seed funding, Pacific Edge spent the first three years

developing a gene-expression database that has become its “cornerstone asset” and from which all current products have been derived.

They now market tests that quantify the expression of selected genes that represent a tumour’s development, progression and gene signature. Crucially, this information is identifiable in the early stages of cancer growth.

Darling says basing the company’s research and new product development facilities alongside the head office in Dunedin has real advantages for communication, efficiency and working with the subsidiary companies while maintaining a close working relationship with the University.

“The operational procedures that have been rolled out internationally were developed in our commercial laboratory in Dunedin. This means our bladder cancer technology is available through a highly regulated and specified model – wherever it is established the clinical experience is standardised.

“The preferred business model is based around a franchise arrangement, but we own the subsidiary. In the United States, for instance, the company is 100 per cent owned by us, Pacific Edge Diagnostics, which markets our technology in both the US and New Zealand.”

With the establishment of a franchise in the United States, the company has realised an immediate priority of a cohesive entry into the world’s largest biomedical market; there are 10,500 urologists in the US compared with only 300 in Australia and New Zealand combined. Its first product

in this market is the non-invasive bladder cancer test, Cxbladder. The company hopes to capitalise on a lack of direct market competition. The existing gold-standard technology is an endoscopy of the urinary bladder via the urethra called a cystoscopy.

“Physical examinations are both invasive and extremely expensive. Cxbladder represents the opposite – a simple urine sample test that can only be conducted in Pacific Edge’s laboratories. The company owns the intellectual property to run the samples, and we own the relationship between the five genes and the disease. It is extremely accurate compared with the invasive techniques, which is very compelling for urologists and patients.”

Cxbladder was supreme winner of the 2013 New Zealand Innovators Awards and is being assessed by New Zealand District Health Boards as a potential routine service for hospitals nationally.

In 2013, three large provider networks – FedMed, ACPN and Stratose – signed contracts giving millions of patients in the US access to the company’s health-care services and technology. MultiPlan



Pacific Edge chief scientific officer **Professor Parry Guilford** and chief executive **David Darling**: “We now have a product that is smarter and better ...”

Photo: Alan Dove

was signed in early 2014 giving the company a clean sweep of the major National Provider Networks.

Darling says the company’s custom diagnostic laboratory can conduct 260,000 Cxbladder tests per year, but that is “entirely scalable” because analytical machines and laboratory staff can be added if that capacity is reached.

Pacific Edge’s entry into the market is commercially timely, given the “complete dearth of research in this area” and the increasing incidence rate of bladder cancer – it is the ninth most prevalent cancer globally and the fourth most prevalent in men. Darling says that while women have a lower incidence rate their mortality rate is higher because they are often not tested as thoroughly; bladder cancer continues to be seen as a male disease.

Increased access to accurate testing will become a more pressing issue in countries with an ageing population.

“There is also an increased risk associated with smoking and a direct correlation with exposure to dermally or respiratory absorbed toxins.”

Feedback from those working with bladder cancer has been invaluable, he says. “We have worked with various key opinion leaders in the field – several lead urologists, product advisors and specialists on the company’s scientific and clinical advisory boards – and it has shown the way forward is with input from those working with product development and in-market activities.

“We now have a product that is smarter and better, and which replaces many existing tools which don’t add much to the clinical perspective.

“As we captured urologists and customers, and developed the product in the marketplace we found there was a great need for more tools that would focus on specific features or needs in the evaluation and management of bladder cancer. We are in the process of building new products that address different needs and we intend to launch a second product later in 2014 that addresses a specific area that urologists have identified.”

The company also benefits from a legacy agreement between the University of Otago and Pacific Edge. As part of the agreement at the inception of the company, the University received a 25 per cent share and committed to contribute future

ongoing pieces of intellectual property for Pacific Edge to commercialise as a “pathway to market” company.

“Backing a new ‘start-up’ was a big commitment and, because of the agreement, we have maintained a very close relationship with the University. It’s a good example of how you can couple academic capability and resources from the University with a commercial enterprise and make a lasting legacy-type arrangement that benefits both parties,” Darling says.

Pacific Edge’s chief scientific officer, University of Otago Professor Parry Guilford, is one of the founders of the company and a key scientist behind much of the discovery of the company’s products.

Guilford, who also serves as director of the University of Otago’s Centre for Translational Cancer Research and director of Cancer Genetics Laboratory (CGL), says the relationship between the company and the University is mutually rewarding.

“The relationship is beneficial for a number of reasons and one of those is funding. Often, funding only covers the initial stages of research, but by showing evidence of a competitive transitional path to market we can attract good funding grants. Also, it is rewarding to provide clinicians with something they can use to improve patient outcomes.”

A shortage of clinical samples can hamper first-stage research, but Guilford says access to material from the company’s extensive international network of urology clinics is an invaluable tool.

The next step for the collaboration is further development of a diagnostic platform for various cancer types that uses fluid that has been in contact with a tumour to isolate single cancer cells so that they “really stand out in the sea of normal cells”.

“Away from commercial pressures, University researchers can ensure the research is good and robust, and collaborate with other researchers in a way that commercial laboratories might not be able to.

“In my view, the model that we have is the ideal one, where you break the back of a technical problem inside the academic environment before moving to the commercial area.”

SAM STEVENS

The fever fight

Rheumatic fever is one of New Zealand's most serious and mysterious illnesses, with alarming rates among Māori and Pacific children, in particular. University of Otago, Wellington researchers are among those leading the charge to reduce the incidence of this potentially preventable disease.

In 2013 there were 205 notified cases of rheumatic fever in New Zealand - the highest total in more than 20 years and almost all (95 per cent) were Māori and Pacific children. This rate of 4.6 per 100,000 people compares with rates of less than one per 100,000 across the rest of the developed world. Rheumatic fever is an acute illness that can progress to more serious rheumatic heart disease, each year hospitalising some 600 New Zealanders and killing around 150.

A government target to reduce the incidence of rheumatic fever by two thirds - to 1.4 cases per 100,000 people by 2017 - has seen more than \$65 million of extra budget funding allocated to sore throat

management through free school and community clinics, improving housing and a range of activities to raise awareness among at-risk communities.

Alongside this work, we need much greater understanding of what causes the disease and what interventions are likely to be effective at preventing it, says Professor Michael Baker, from the University of Otago, Wellington's (UOW) Department of Public Health.

Funded by the Rheumatic Fever Research Partnership (Health Research Council of New Zealand, Heart Foundation, Cure Kids, Te Puni Kōkiri and the Ministry of Health), he and his colleague Professor Julian Crane, from UOW's Department of Medicine, are leading two ground-breaking projects to help meet this knowledge gap.

One, led by Baker, aims to identify important modifiable risk factors for rheumatic fever. The other, led by Crane, will investigate the effect of the oral probiotic *S. salivarius* K12, produced by BLIS Technologies, as a way of reducing the strep throat infections that can cause rheumatic fever.

The projects are two of four currently funded by the Rheumatic Fever Research Partnership to tackle the disease. UOW is making a substantial contribution to another one of the four - a study looking at the role of echocardiography in the early diagnosis of rheumatic heart disease.

A further project, funded by the Health Research Council of New Zealand and the Ministry of Health, called Housing Effects About Rheumatic fever (HEART), is being led by UOW's Professor Philippa Howden-Chapman and Dr Ramona Tiatia.

Identifying risk factors, particularly those that are modifiable, is a key part of the puzzle, Baker says. This is the impetus behind the project he is leading, a national case-control study which began recruiting cases on 1 September.

Over the next two years this study aims to recruit 200 children and teenagers with rheumatic fever and compare them with 400 young

people who do not have the disease, to identify important risk factors. Initially in Auckland, the study will extend to Northland and the Waikato and, possibly, to other parts of the North Island, depending on disease incidence and recruitment rates. Results will be available towards the end of 2016.

"The entire research team is aware of the urgent need for the results of this study to be made available to the Ministry of Health and other agencies who are directing our national response to this disease," Baker says.

The study has been designed to investigate a full set of potentially modifiable factors, with a particular focus on household crowding, sleeping arrangements, home heating, washing facilities, tobacco smoke exposure, dental health, health-care access and nutrition, including plausible risk factors such as vitamin D deficiency.

Because rheumatic fever virtually vanished from the US and Europe in the 1960s, it has received surprisingly little attention from researchers, despite remaining an important disease across the developing world, Baker says.

"There have been very few high-quality case-control studies of the type we are conducting. Consequently, results of this New Zealand study have the potential to support global efforts to control rheumatic fever."

He does admit, however, to feeling a bit anxious about the study.

"Case-control studies are unforgiving. You have to identify all of your hypotheses and risk factors at the start and build them in to your data collecting and testing. There are no second chances. Fortunately, we have a brilliant group of co-investigators, and Māori and Pacific advisory groups who have given us expert guidance about the study design and questions that we need to focus on."

The study team includes paediatricians, microbiologists, immunologists and geneticists, as well as experts in epidemiology, oral health

and housing. In what Baker describes as “very much a national effort to try to understand the disease”, team members are based at the University of Auckland, Environmental Science and Research (ESR) and the Auckland District Health Board, as well as the University of Otago.

The research team is also grateful for the high level of support it is getting from doctors, nurses and laboratory scientists.

“This support is critical for the success of this study. There is a lot of good will towards this research because of the recognition that we currently don’t know how to stop this disease.”

Baker and his public health colleagues are also calling for better surveillance of rheumatic fever to clarify the true rate of the disease and the effect of current interventions on that rate.

A recent UOW review showed that New Zealand cannot accurately track rheumatic fever incidence over time and the impact of the major interventions, he says.

“New Zealand has such wonderful health information resources, it would be relatively easy to organise these data to give us comprehensive surveillance of rheumatic fever. A critical need is for a national rheumatic fever register to combine different data sources to give us

a single, robust total for rheumatic fever incidence in this country.”

Meanwhile, both he and Crane are excited about the potential to make a difference for vulnerable populations through the probiotic currently being tested in a community trial in Porirua, Wellington.

Crane notes that probiotics have, until recently, been on the fringe, but there is growing recognition of their potential and, recently, considerable interest in understanding the mechanisms by which they can modify disease and how they interact with the bacteria that normally, and usually happily, live with us.

The probiotic is a naturally-occurring bacterium that lives in the mouths of some children which produces bacteriocin-like inhibitory substances (BLIS) to kill the bacteria causing Group A Streptococcal (GAS) sore throat – often referred to as strep sore throat – that can cause rheumatic fever.

Around 2,000 children and their families from 11 Porirua schools are involved in this first-ever large random, double-blind human clinical trial of BLIS – all of whom are already taking part in the government school sore throat management programme.

Crane hopes that if the study shows BLIS reduces strep sore throats, the lozenges will be made available to all children at risk of developing rheumatic fever and would provide a temporary respite from the risk.

Children in the trial will be given a throat and tongue swab at the beginning of the trial, which runs for three school terms. They will also be swabbed at the end of the trial to see whether BLIS has changed the bugs in their throats.

Working collaboratively with public health nurses and trained staff in the schools, researchers will also count how many sore throats the children get during the year to see any differences between children taking the probiotic and those taking the placebo.

A small pilot study in Italy has already shown a 90 per cent reduction in GAS sore throat in high-risk populations, but no formal blinded randomised trial has previously been undertaken, Crane says.

“BLIS is a New Zealand invention, so it would be fitting if we can demonstrate that it is effective at reducing a major New Zealand health problem like rheumatic fever.”

KARYN AMMUNDSEN

“Results of this New Zealand study have the potential to support global efforts to control rheumatic fever.”



Professors Michael Baker and Julian Crane: “There is a lot of good will towards this research because of the recognition that we currently don’t know how to stop this disease.”

World class in Dunedin

With the support of a farsighted bank manager and the extraordinary talents of Computer Science whizz kids from the University of Otago, alumnus Ian Taylor has created an internationally acclaimed computer animation business that has, among other things, transformed televised sport around the globe. It has also enabled him to achieve his primary goal of living and working in Dunedin.

Ian Taylor's decision 25 years ago that his place in the world is Dunedin has not prevented him from creating a world-class computer animation business that foos it on the international stage.

Born in Kaeo in the far north, Taylor grew up in the small East Coast town of Raupunga. His Māori mother and Pākehā father were schoolteachers. He can still vividly recall the day electricity arrived and a single bulb lit up the room. "It had a huge impact on me. At eight years of age, I figured that if you could do that by flicking a switch, you could do anything."

Taylor first visited Dunedin as the lead singer with the popular Kiwi band, Kal-Q-Lated Risk. He had dropped out of a business degree course at Victoria University in 1968 to join the band, "because it seemed like more fun".

After four years with the band and a stint of compulsory military training in the army, the homeless and jobless Taylor was drawn back to Dunedin. "When I had been in the Risk, we had travelled

all over the country and the best place we had played was in Dunedin – the Ag Hall, the Beach Hotel."

Taylor worked in the bottling plant at Speight's Brewery for a year, during which he sang in a University of Otago Capping Concert. "I had a ball, it was just great fun, and while I was doing that I thought I better get serious as well and go back to university."

He completed a law degree at Otago while still working part-time at the brewery. During his final year, the former pop star worked part-time as a presenter on the children's television programme, *Play School*. Set to embark on a career as a lawyer, he was offered a full-time job as a presenter on the children's magazine programme, *Spot On*. He then worked as a television presenter, writer, director and producer.

In 1989, Taylor accepted a job in television current affairs in Wellington, but could not bring himself to leave Dunedin. "I was due to start the

following Monday and I was sitting in our house in Ann Street and I thought, 'Actually, I'm not going. This is too good. This is where I want to live.'"

Instead, he formed Taylormade Productions, with modest beginnings making regional television commercials and corporate videos. Initially the productions were literally Taylor made, by Ian Taylor alone working from home.

When Television New Zealand closed its Dunedin studios, Taylor convinced a Dunedin bank manager to lend him half a million dollars and bought the studios.

"We went for a long walk, I told him what I wanted to do and he said, 'You've got the money'. At that stage, I probably had about a thousand dollars in the bank. It would never have happened anywhere else."

Taylormade was best known for its children's television show, *Tiki Tiki Forest Gang*, in which a TV studio was run by animals and a rogue computer; *Squirt*, featuring New Zealand's first



Ian Taylor: “I wouldn’t swap this for anything...”

Photo: Alan Dove

“It was clear to me that if you were going to run a business from the bottom of the world, you had to find something that was world class. That stuff I found at the University was world class. You could see straight away that if we put that together with what we did, we could build a business here that we could take to the world.”

motion-captured co-host, Spike the Penguin; and a live interactive show, *Studio 2*.

Taylormade was in its infancy when Taylor heard about Dr Geoff Wyvill and the graphics research magic that he and his students were conjuring up in the computer graphics laboratory Wyvill had set up three years earlier in the University of Otago's Department of Computer Science.

"I walked in and thought, 'This is incredible'. It was clear to me that if you were going to run a business from the bottom of the world, you had to find something that was world class. That stuff I found at the University was world class. You could see straight away that if we put that together with what we did, we could build a business here that we could take to the world."

Taylor was no less impressed with Wyvill, then a senior lecturer and now emeritus professor. "Geoff is an absolute genius. He is the most unassuming, honest, incredible man I know."

Taylormade Productions and the Computer Science Department set up Animation Research Limited (ARL) as a joint venture. "It was probably one of the first attempts to take university academic IP and do something else with it. And we did it on a handshake."

Three of Wyvill's students – Craig McNaughton, Paul Sharp and Stu Smith – were among the first people ARL employed. McNaughton and Sharp were members of the University of Otago team (along with physics students John Gee and Bruce Warrington) that had just become the first non-United States university team to win the International Collegiate Programming Contest, an annual computer programming "Olympic Games" for students.

Taylormade soon acquired the University's shares in Animation Research, but four of the five members of the original joint venture – Taylor, Wyvill, Sharp and Smith – remain as shareholders and Sharp, Smith and

McNaughton still work with Taylor at ARL.

Taylor notes that staff turnover is very low, but the company has routinely taken on new recruits from Wyvill's computer whizz-kid factory. "Geoff sends us these really good guys. We don't necessarily have jobs for them, but they end up staying here."

ARL's first 3D production was a title sequence for a Television New Zealand series, *University Challenge*, the first of many productions for TVNZ. The company went on to create classic television advertising images: the waterskiing penguin, seagulls on a Cook Strait fast ferry and gannets forming a koru.

The first commercial was for Chicago-based United Airlines. The computer-generated images featured a United 747 flying over Paris, the Grand Canyon, Rio de Janeiro and Hawai'i. The commercial won awards around the world.

Animation Research Limited achieved further international acclaim for virtually revolutionising the way people view televised sport. Working with Television New Zealand, ARL developed the world's first live 3D animated graphics sports coverage, for the America's Cup yacht racing in San Diego in 1992.

Since then it has enriched viewers' entertainment and understanding by providing real-time Virtual Eye animation graphics for other sports too, notably cricket, golf and Formula One motor racing. The company's ball-tracking technology has helped take a little of the frustration out of televised cricket by taking some of the guesswork away from umpires.

ARL's other varied work has included building an air traffic control simulator for Airways New Zealand for its training facility in Christchurch. Taylor takes particular pride in the simulator project. ARL had never built one before.

Taylor and ARL staff travel the world with their computer wizardry. It's a part

of ARL folklore that in one six-week period, Taylor flew the equivalent of a quarter of the way to the moon.

Watching TV at home one night, he had the satisfaction of flicking through the sports channels and finding ARL's involvement in coverage of cricket in New Zealand, Formula One racing in Melbourne, Volvo ocean racing in China and golf in Spain.

"All done from Dunedin," Taylor enthuses on behalf of company and city.

Ironically, Taylor is a self-confessed technophobe. "I say it all the time. I don't understand any of this stuff. I have been privileged to have ended up here in Dunedin, meeting people at the University and working with some really talented people with world-class skills."

The accolades keep coming for the 64 year old and his company. Taylor was made a Companion of the New Zealand Order of Merit, for services to television and business, in 2012. ARL won a Sports Emmy this year (in the Outstanding New Approaches – Sports Event Coverage category) for its official America's Cup mobile phone app. Typically, it was the company's first attempt at creating a mobile phone app. The company was also recently awarded the first-ever Lifetime Achievement Award in the 2014 New Zealand Hi Tech Awards.

Taylor's greatest pride is in his family. He married Dunedin lawyer, Liz Grieve, who now works alongside him at ARL. "I have always said that she is the one who has had the real job and I just played." The couple, who met while studying law at Otago, have two sons: Sam is a doctor and Ben runs ARL's European operations. The couple still live in their first house, in the hill suburb of Roslyn.

"I wouldn't swap this for anything. I get to travel the world and come back to Dunedin and to Central Otago [where the family has a holiday home] and I know for certain there is no place on the planet I would swap it for."

IAN DOUGHERTY

The power of development

Ten years on, the Leading Thinkers Initiative continues to enrich Otago's research culture and provides a platform for new development.

It has been 10 years since the University of Otago launched its first major development campaign, the Leading Thinkers Initiative.

The five-year campaign was established under the government's Partnerships for Excellence Framework to support world-class scholarship at Otago in areas considered vital for the nation's future well-being.

It was an ambitious campaign – and successful, with its goal of \$50 million (including \$25 million as matching funds from government) exceeded six months ahead of target. A total of \$51.7 million was raised to support 27 new projects, covering the breadth of academic disciplines and all meeting the objectives of the University's strategic direction.

The first was the Edgar Diabetes and Obesity Research Centre with the appointment of Leading Thinker Professor Jim Mann in 2004. Over the past 10 years many of its findings have achieved national and international recognition, leading to community interventions in the fight against diabetes and obesity, influencing public policy and guidelines. Other projects have led to significant findings in the fight against cancer, infectious and inflammatory diseases, and have

contributed to international development and third-world health. Research has been fostered in areas as various as children's issues, the legal implications of new technologies, peace and conflict studies, early modern philosophy and entrepreneurship. [A summary of all 27 projects follows on pages 24-25.]

A defining feature of the Leading Thinkers Initiative was its commitment to investing in people, not buildings; knowledge leaders, not infrastructure. It was a concept that resonated well with donors and has enriched the research culture across the University.

"Leading Thinkers draw expertise and resources together around themselves to create, or strengthen, focal points for excellence and innovation in research at Otago," explains Deputy Vice-Chancellor (Research and Enterprise) Professor Richard Blaikie. "They have also attracted significant sums of external funding and have fostered a new generation of postgraduate students through their research activities.

"This supports our vision at the highest level to be a research-led university with an international reputation for excellence."

Significantly, the initiative also established a platform of new partners for

the University – donors who gave support in order to help the University attract world-class people to pursue world-class research, many in areas of particular importance to them. This has embedded a culture of philanthropy that was, at that time, a relatively new concept in New Zealand.

Building on this success the University is now well placed to launch new development projects as it moves towards its 150th anniversary in 2019.

Director of Development and Alumni Relations Philip Kearney says the results of the Leading Thinkers Initiative have highlighted how development activities can make a "real difference".

"The opportunity to contribute to new projects addressing issues of social, economic, health and environmental concern, both here in New Zealand and internationally, will continue to be a feature of future development initiatives.

"These initiatives will be outcome-focused, enabling the University to build on existing areas of teaching and research strengths, and translating that research into areas of local, national and international betterment – making a real difference to real lives.

"We hope that alumni will continue to partner the University in this vision."

"The opportunity to contribute to new projects addressing issues of social, economic, health and environmental concern, both here in New Zealand and internationally, will continue to be a feature of future development initiatives."

Leading Thinkers projects

AgResearch Chair in Reproduction and Genomics

AgResearch Ltd

Professor Neil Gemmell

The group is leading the development and application of new genetic and genomic approaches in ecology and evolution, enhancing basic science together with conservation and biosecurity outcomes, nationally and globally.

Alexander McMillan Chair in Childhood Studies

Alexander McMillan Trust

Associate Professor Nicola Taylor

Further developing the Children's Issues Centre as an authoritative source of multidisciplinary research on issues relevant to children's development, well-being and rights, projects have included child dislocation in Christchurch, relocation after parental separation and family life in a socio-technological landscape.

Baier Chair in Early Modern Philosophy

Annette and Kurt Baier

Professor Michael LeBuffe

The endowment of this chair has further strengthened Otago's highly regarded Department of Philosophy, with a focus on the thinkers whose work underpins the Scientific Revolution and the Enlightenment.

Carney Centre for Pharmacogenomics

Jim and Mary Carney Charitable Trust

Professor Martin Kennedy

Comprising a cluster of groups working in the area of pharmacogenomics – how genes influence individual responses to drugs and tailoring treatments for greater effectiveness – current research programmes include mental disorders, inflammatory bowel disease, rheumatoid arthritis, asthma and heart disease.

Centre for Molecular Research in Infectious Diseases

Dr John Thrash

Professor Kurt Krause

The Laboratory for Molecular Research in Infectious Diseases undertakes research on the mechanisms used by important human pathogens in causing disease. Current projects include HIV/AIDS, tuberculosis and antibiotic-resistant pathogenic bacteria.

Chair in Peace and Conflict Studies

Aotearoa New Zealand Peace and Conflict Studies Trust

Professor Kevin Clements

Established in 2009, the National Centre for Peace and Conflict Studies has become internationally recognised, with research including development and peace-building, peace education, critical terrorism and peace research, non-violent social movements, friendship studies and the role of indigenous actors in conflict transformation.

Community Trust of Otago Centre for Trace Element Analysis

Community Trust of Otago

Associate Professor Claudine Stirling

Using multiple-collector inductively coupled plasma mass spectrometry (MC-ICPMS), the Centre for Trace Element Analysis analyses metallic elements and their isotopes for wide-ranging applications in the earth, environmental, climate, planetary, archaeological and biomedical sciences.

Cure Kids Chair in Child Health Research

Child Health Research Foundation (Cure Kids)

Professor Stephen Robertson

Exploring the genetic determinants underlying childhood diseases, Professor Robertson's group is now 10-strong and has made significant contributions towards understanding the genetics of a variety of syndromes affecting the development of the skeleton and brain.

Cure Kids Chair in Paediatric Research

Child Health Research Foundation (Cure Kids)

Professor Brian Darlow

Neonatology research has included New Zealand taking a lead role in international multicentre randomised controlled trials. The department has been strengthened by two general paediatric appointments and achieved A ratings in the latest PBRF assessment.

Dunedin City Chair in Entrepreneurship

Dunedin City Council

Professor Melissa Baucus

The Centre for Entrepreneurship has become internationally recognised as a hub for entrepreneurship research, research-led teaching and for fostering a new generation of entrepreneurs.

Eamon Cleary Chair in Irish Studies

Eamon Cleary Charitable Trust

Professor Peter Kuch

Providing national leadership in the area of multidisciplinary Irish Studies – from literature to economic history, film and theatre to national identity – the endowment of this Chair has enabled Otago to offer the Southern Hemisphere's only degree in Irish Studies.

Edgar Diabetes and Obesity Research Centre

Eion and Jan Edgar Charitable Trust

Professor Jim Mann

The centre's internationally recognised work makes significant contributions to reducing the global burden of diabetes and obesity through research and the dissemination of knowledge. This has attracted wide media attention, and influenced public policy and guidelines.

Gama Research Fellowship in Bipolar Disorder

GAMA Foundation

Dr Esther Vierck

Current research is examining the emotional processing and other cognitive functions, such as memory, to predict social functioning of bipolar patients. Isolating specific deficits would benefit treatment providers and would improve existing remediation therapies.

Howard Paterson Chair in Theology and Public Issues

Paterson Charitable Trust, Presbyterian Synod of Otago & Southland, Ian and Annette Tulloch

Professor Paul Trebilco (Professor David Tombs from January 2015)

The Centre for Theology and Public Issues has become a strong voice in bringing a theological perspective to a range of public debates, including poverty, social welfare and the environment.



Karitane Senior Research Fellowship in Early Childhood Obesity

KPS Society Limited

Associate Professor Rachael Taylor

Also Deputy Director of the Edgar National Centre for Diabetes and Obesity Research, the Fellow is investigating different approaches to the effective prevention and treatment of obesity in children, in home, school and community settings, and serves on a number of advisory boards and committees related to this work.

McAuley Chair in International Health

Mercy Hospital Ltd (Sisters of Mercy)

Professor Philip Hill

The Centre for International Health has been established to focus on research leading to improved health in under-resourced countries. Projects with New Zealand and overseas collaborators, funded by international agencies, are running in Africa, Asia and the Pacific.

McKenzie Chair in Clinical Science

F. & J. McKenzie Charitable Trust

Professor John McCall

The current McKenzie Professor of Clinical Science is supporting cancer and gastro-intestinal research in the Department of Surgical Sciences, including bio-banking and co-ordination of the Colorectal Translational Research Group, and scientific collaborations throughout the University of Otago and beyond.

McKinlay Chair in Global Health

Stuart and Marylyn McKinlay

Professor John Crump

This second endowed chair within the Centre for International Health was established to help improve the health of people in low-resource areas through multidisciplinary research on pressing global health problems.

New Zealand Institute for Cancer Research Trust Chair in Cancer Pathology

New Zealand Institute for Cancer Research Trust

Professor Mike Eccles

Seeking to understand cancer diagnosis and treatment through first understanding the biology of the disease, recent work has unravelled a molecular “switch” that controls the invasive potential of melanoma cells. Now the focus is on decoding the mechanisms that turn that “switch” on or off.

New Zealand Law Foundation Chair in Emerging Technologies

New Zealand Law Foundation

Associate Professor Colin Gavaghan

The Centre for Law and Policy in Emerging Technologies is the only New Zealand-based centre examining the legal, ethical and policy issues around new technologies, including biotechnology, nanotechnology, neurotechnologies and the internet, aiming to build legal and policy capability in these developing areas.

Robert and Marjorie Webster Chair in Viral Pathogenesis

Robert and Marjorie Webster

Professor Andrew Mercer

The Chair leads a broad-based research programme identifying new mechanisms by which viruses cause disease and, paradoxically, how they may also be a source of new therapeutics for the treatment of a wide range of chronic human conditions, including cancer and inflammatory disorders.

Ron Lister Chair in Geography

Anonymous

Professor Tony Binns

Named in honour of the University’s foundation Professor of Geography, this endowment has enabled leading work in development studies, focusing on areas including urban agriculture, rural development and community resilience in post-conflict Sierra Leone, Zambia and Samoa.

Ocean Science Vessel: *RV Polaris II*

Community Trust of Otago, Mace Charitable Foundation Trust,

Eion and Jan Edgar Charitable Trust, J & L Callis Charitable Trust

Professor Gary Wilson

This research vessel is providing a vital platform for a wide range of marine and environmental science activities, from the quiet waters of Otago Harbour to the remote seas of New Zealand’s sub-Antarctic islands.

Stuart Chair in Science Communication

Stuart Residence Halls Council

Professor Lloyd S Davis

This is New Zealand’s first chair in Science Communication, with the specific responsibility to direct Otago’s Centre for Science Communication, established in 2008. More than 80 students have successfully completed the Master of Science Communication degree and research capacity has more than doubled.

Stuart Chair in Scottish Studies

Stuart Residence Halls Council

Professor Liam McIlvanney

Fostering research into Scottish history and culture, and the Scottish impact on New Zealand’s identity and development, Professor McIlvanney has also published a number of books on aspects of 18th century Scottish literature, Ulster-Scots poetry, contemporary Scottish fiction and Scottish diaspora writing.

T. D. Scott Chair in Urology

Trevor Scott and the T. D. Scott No 2 Family Trust

Search under way

This endowment will enable further research and enhance teaching in urology, a field of men’s health that many consider to be a neglected area of medicine.

University of Otago Legal Issues Centre

GAMA Foundation

Dr Jennifer Moore (acting director)

Established to undertake independent research on legal issues relating to how a more accessible, affordable and efficient legal system can be created for the benefit of all citizens, the centre has recently released landmark research about the New Zealand Coroner’s Court, attracting widespread media attention.



Winning strokes

The Otago University Rowing Club and its members are making waves on the international stage.

By whatever measure you use – be it numbers in the club, trophies in the cabinet, titles won, Olympians developed or overseas links forged – the Otago University Rowing Club is a success.

But there is also a bigger picture to be admired, including a membership of between 200 to 250 which, club manager Glen Sinclair says, includes rowers of all levels.

“We start absolute beginners and within five or six weeks they could be racing at the New Zealand University Championships, and we also have athletes who are on the national elite team winning World Championship medals – as well as everyone in-between,” he says.

“Our biggest area is our beginners who, perhaps, never had access to rowing

as a sport at high school.”

Sinclair puts much of the success down to a strong work ethic. Rowers are usually down at the club by 5.45am to train, then off to make an 8am lecture. At the end of the day they are back at 5pm or at the gym.

“That’s a big part of the attitude here – that their training is almost as important as their rowing.”

The club is also blessed with a fantastic harbour with long, calm mornings and a good 16-18 kilometre training area.

It is a recipe which has spurred on the rowing careers of a number of Otago alumni such as Olympic gold medallists Hamish Bond and Nathan Cohen, and bronze medallist Rebecca Scown, who also went on to win a couple of world

titles. Other high flyers include Fiona Bourke, Fergus Fauvel and Alistair Bond who is making a name for himself as a lightweight.

Even at club level there are international opportunities. Men’s teams have competed in Russia and China and the women have gone to South Africa, America and China.

“We’re the only university in New Zealand that gets invited to compete internationally and has international teams coming here as well.”

The senior women’s eight travelled to China in July, winning three out of three international universities’ regattas, competing against crews from French, Italian and Chinese universities, as well as Yale and Oxford.





Photo: Alan Dove

Their preparation for temperatures above 40 degrees and high humidity was helped greatly by time spent doing hard exercise in the School of Physical Education's environmental chamber.

Aside from a great work ethic, the club boasts fine facilities, built in 2002 with contributions from the OUSA building levy, the Community Trust of Otago and the Lotteries Commission, as well as plenty of fundraising. It also enjoys the support of keen benefactors who have a history with the club, including Sir Eion Edgar and David Richwhite.

It boasts a huge storage area for the club's skiffs, a social area overlooking the harbour and excellent training facilities, including the country's only indoor rowing tank, used to improve rowing technique.

"It has been a huge asset in getting our novices up and going – we very rarely lose the national novice eights and I think our women have won around 10 years in a row," Sinclair says.

"But one of the biggest joys is the children with disabilities programme where kids who will never get out on the water in a boat are doing the next best thing, splashing away with an oar and doing all-but the real thing in the tank."

The club also runs school programmes, helps train a Special Olympians group and even draws athletes from American high schools who are sent to Dunedin to train before colleges assess them for scholarships.

A lot has changed at the Otago University Rowing Club since it was formed in 1929, such as the high proportion of female rowers. It stands at roughly two-thirds females to one-third males, compared to about half-and-half at secondary school level.

This willingness to change bodes well for the club's future as it develops other areas such as the inter-college eights race – a mixed eight with four boys and four girls.

"The traditional colleges of Knox and Selwyn were winning it for the first few years, but the likes of Unicol, Cumberland and Arana are now taking over. It is fiercely contested," Sinclair adds.

They have also set up a high performance rowing programme with Rowing New Zealand, University of Otago and the Otago Polytechnic, training out of the High Performance Sport New Zealand centre.

Despite the look of the building and its facilities, Sinclair says they are running it "on the smell of an oily rag" with the help of the OUSA, which owns the building, and valuable support from the University.

"I would like to think the rowing club is returning the investment through marketing Otago overseas."

MARK WRIGHT

Blurred lines

Alumnus Dr Thomas Douglas is working at the forefront of an emerging – and controversial – field, looking at the potential benefits of, and ethical dilemmas presented by, neurointerventions in crime prevention.

Should medicine solely be used to prevent and treat disease? Or could drug therapies also be used in the criminal justice system to reduce the risk posed by violent offenders? Could chemical interventions reduce sentence times, ease prison over-crowding or even provide an alternative to incarceration? Bioethics researcher Dr Thomas Douglas says questions abound in this emerging field and they blur the lines between neuroscience, law, medicine and philosophy.

Douglas, who completed degrees in bioethics (BMedSc) and medicine (MB ChB) at the University of Otago, recently returned to Dunedin to form research associations with academics working in similar fields, including University of Otago bioethics Professor John McMillan and Associate Professor Colin Gavaghan, the director of the New Zealand Law Foundation Centre for Law and Policy in Emerging Technologies.

Douglas developed an interest in the ethical and legal aspects of medicine during his medical studies, which led to a thesis on disparities in care between people who qualified for treatment under New Zealand’s internationally unique Accident Compensation Commission (ACC) scheme and those who received free public hospital treatment for ordinary disease.

“I argued that having a genetic disease is no more an individual’s fault than a workplace accident and that it was unfair to treat them differently in terms of compensation and publicly-funded medical care. Towards the end of my medical studies I realised I was more fascinated by the ethical questions raised by medicine than by medicine itself.”

He was awarded a Rhodes Scholarship to study at the University of Oxford where he completed a PhD in philosophy, followed by three years as a Wellcome Trust Research Fellow in the Oxford Uehiro Centre for Practical Ethics.

Now, as senior research fellow at the Uehiro Centre and principal investigator on the Wellcome Trust-funded project Neurointerventions in Crime Prevention: An Ethical Analysis, his work is at the forefront of an emerging field.

“A current hot topic is whether (and how) neuroscientific technologies, such as brain scans, might be relevant in determining criminal culpability. Research is also being done on ethical issues raised by the possible use of fMRI scans to develop more effective lie detector tests.

“But, from an ethical perspective, not much has been done on the possible criminal justice applications of what I call ‘neurointerventions’ – drugs or other biological interventions that affect the brain and behaviour, such as testosterone-lowering drugs that are sometimes administered to sex offenders.

“While various pieces of mental health legislation are used to order compulsory treatment or hospitalisation for offenders who are deemed to be a risk to society, this is normally limited to offenders with severe mental illness and the interventions are regarded more as part of psychiatric treatment than criminal rehabilitation.

“Drugs and other biomedical technologies might potentially have a broader role to play in the rehabilitation of offenders, including those who don’t suffer from any serious mental disorder.”

Several small non-clinical trials have already indicated that certain drugs might be able to reduce impulsive violent behaviour. Further research may lead to advancements in the treatment of psychopathy, behavioural problems and aggression, and existing drugs that reduce substance abuse or addiction could have applications in preventing drug-related reoffending.

“Of course, there would need to be good evidence that the drugs are safe and effective as an aid to rehabilitation.”

But the core of the argument is about more than just drug availability, safety and effectiveness – it is about the extent to which the criminal justice system

could, or should, impose not only traditional criminal sanctions, but also neurointerventions on an individual.

“I have been developing the argument that if locking offenders in prison for a long period of time is justified, then it’s difficult to see why requiring prisoners to undergo some type of safe and effective neurointervention couldn’t also be acceptable. In many cases neurointervention may be less intrusive and harmful, and potentially more

effective in preventing reoffending, which is normally at least one of the purported purposes of incarceration.”

He stresses his project is motivated by the need to address flaws in the current criminal justice system, not a desire to create an Orwellian regime where prisons are full of drugged inmates.

“Suppose dietary changes could reduce rates of criminal offending or violence between prisoners? People would probably endorse that, but view drugs

as more problematic. However, in both instances the goal would be biologically modifying behaviour.”

Douglas’ research has a legal aspect as well as a philosophical one, but mainly “looks at what the law should be, rather than what the law is”.

The current “piecemeal approach” to legislation is based on an historic view of medicine’s role as prevention and treatment of disease or injury. Douglas’ research is aimed at stimulating informed



Dr Thomas Douglas: “... if locking offenders in prison for a long period of time is justified, then it’s difficult to see why requiring prisoners to undergo some type of safe and effective neurointervention couldn’t also be acceptable.”

Photo: Alan Dove

“If we think one of the purposes of criminal justice is to prevent reoffending then we have to ask the question – can drugs provide a safe and effective means of achieving that?”

debate about future applications for drugs to protect people from crime and to protect offenders from, arguably, quite barbaric criminal sanctions.

“One of the questions I’m looking at is, should the courts or parole boards be authorised to impose medical interventions? Some states in the US and some countries in Europe have specific laws about chemical castration, but these laws wouldn’t immediately cover new drugs that may become available.”

Drugs that allow reintegration of prisoners into the community may also help reduce prison overcrowding, but Douglas stresses caution when discussing possible panaceas – particularly those motivated by political or financial agendas.

“Potentially, governments could overuse neurointerventions for fiscal reasons and there could be legitimate public concern about drug companies profiting from involvement – although, to date, the manufacturers of drugs that could be used in criminal rehabilitation have shown little interest in promoting their use for that purpose.

“The main drug currently used to lower sex drive in sex offenders in Europe is much more widely used as a treatment

for prostate cancer and, in the short term, it is unlikely the manufacturer would want to publicise its criminal justice applications and risk damaging its reputation.”

Resistance to new medical technologies is inevitable given humanity’s historical “over-enthusiasm for solving criminality with medical technology”, he says, referring to the use of frontal lobotomies in the 20th century.

Some commonly prescribed anti-depressants have shown promise in moderating aggressive behaviour. Douglas believes that, should such drugs prove effective in facilitating criminal rehabilitation, they could be used in the parole process – agreement to take the drug for a given period, perhaps along with psychological interventions, could be made a condition of release.

This introduces an interesting ethical clash between criminal justice values – which are normally thought to justify highly coercive and nonconsensual measures – and medical ethics, which are normally thought to dictate nothing should be done without free and informed consent.

“An objection to imposing neurointerventions as a condition of

parole could be that prisoners are being coerced into a medical intervention. Some would say that when the alternative is to remain in prison the offender’s consent to the intervention would not be valid.

“But even though this is coercive to a point, it is less so than locking offenders in prison and removing all choice. If we agree the aim of highly coercive measures, like incarceration, is preventing reoffending, then perhaps we should examine objections to offering offenders alternatives.

“There is no real consensus on the science or the ethical considerations in this field. But it is good that discussion and research is increasing. If we think one of the purposes of criminal justice is to prevent reoffending then we have to ask the question – can drugs provide a safe and effective means of achieving that? If they can, I think it’s hard to see why using drugs to achieve these goals would invariably be wrong. But that remains a controversial viewpoint.”

SAM STEVENS

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Defining ages

The decline and fall of the Roman Empire may well have started sooner than traditionally thought.

Dr Dan Osland (Classics) is studying archaeological evidence from the Spanish city of Mérida - which was the capital of the Roman province of Lusitania - and contrasting it with what we read in historical accounts of the end of the Roman world.

"I have been trying to identify the beginning of a trend away from what is clearly a 'Roman' way of life toward something that we might classify as 'medieval,'" explains Osland.

Using material, much of it uncovered by archaeologists during excavations of building sites in Mérida, Osland has made a particular study of such things as the plan of the city, the styles of the houses and even the way people prepared and ate food, and concluded that these were changing much earlier than previously believed.

"The traditional approach is to identify the transition as somewhere in the late fifth century, with the arrival of 'barbarians' and the collapse of the western Roman imperial government, or else in the early eighth century, with the arrival of the Moors," says Osland.

"My work has tended to trace the roots of this large-scale change, or series of changes, to how people lived in the cities of the western Mediterranean back as far as the late third and early fourth centuries.

"This would make the transition to what looks a lot like medieval Mérida a late Roman phenomenon and it raises all sorts of interesting questions about how we define the chronological periods of history."



Dr Dan Osland: "I have been trying to identify the beginning of a trend away from what is clearly a 'Roman' way of life toward something that we might classify as 'medieval'."

CEO pay rates puzzle

You'd expect that chief executive officers who have a say in how much their pay increases each year would receive more than those who don't, but research by Dr Helen Roberts (Department of Accountancy and Finance) curiously shows that the opposite is the case.

Roberts looked at the compensation of CEOs of 447 publicly listed New Zealand companies from 1998 to 2005 and was puzzled by the results.

"The managerial power view of executive compensation suggests that CEO membership of the compensation committee is an open invitation to rent extraction by self-serving executives," says Roberts.

Instead, she found that annual pay increases for CEOs who sit on compensation committees were on average four per cent less than those who were kept at arm's length from the process.

After ruling out various other solutions to the puzzle, Roberts suggests that "highly visible arrangements which, on the surface, appear an open invitation to CEOs to behave opportunistically may, in fact, induce them to exercise greater restraint."

She adds that, in New Zealand at least, it follows that any seemingly excessive CEO compensation is unlikely to be due to the presence of CEOs on compensation committees.

Roberts notes that New Zealand is unusual in allowing CEOs to sit on compensation committees and influence their own pay

increases, either directly or by negotiating a favourable pay package for their executive team, which then needs to be passed on to the CEO to maintain relativity.

Roberts' findings have been published in the *Journal of Economics and Business*, in an article co-written with Professor Glenn Boyle (University of Canterbury).



Dr Helen Roberts: "Highly visible arrangements which, on the surface, appear an open invitation to CEOs to behave opportunistically may, in fact, induce them to exercise greater restraint."

Melanoma risk prediction

Research at the University of Otago could hold a key to reducing deaths from melanoma skin cancer in New Zealand.

Dr Mary Jane Sneyd (Department of Preventive and Social Medicine) has developed a personal risk assessment model that estimates the probability of an individual developing their first melanoma within the next five years. She says that those with a high risk can then be offered appropriate strategies for prevention, surveillance and, if risk turns to reality, early diagnosis and treatment.

Sneyd says that risk factors identified for fair-skinned adults include the number of large moles on the right arm (as an indicator of moles on the body generally) and a personal history of non-melanoma skin cancer. Additional factors for women include skin colour and a close relative with large moles; for men, age, birthplace and early place of work.

She explains that the statistical model enables the complex interactions of the various risk factors to be applied to individuals.

“We know that people with blue eyes, blond hair, fair skin and freckles have a higher risk of melanoma than people who have none of those factors, but the model calculates the actual risk to a particular person.”

Based on interviews with 368 people with melanoma and 270 without, Sneyd says that it is the first model specifically developed

for New Zealand. She adds that the model needs to be validated before it is made available to doctors.

An article on her work, co-written with colleagues, Dr Claire Cameron and Associate Professor Brian Cox, has been published in the online journal, *BMC Cancer*.



Dr Mary Jane Sneyd: “We know that people with blue eyes, blond hair, fair skin and freckles have a higher risk of melanoma ... but the model calculates the actual risk to a particular person.”

Ecosystem mystery

By examining the Lake Ellesmere ecosystem, Otago researchers aim to determine to what extent lowland lakes and wetlands provide a little-known but valuable ecosystem service by converting nitrate to harmless nitrogen gas or, conversely, contribute to greenhouse gases.

Lake Ellesmere/Te Waihora is Canterbury’s largest lake and of national importance as a waterfowl habitat and fishery. Unfortunately, as a natural sink for the run-off from farms in the Canterbury Plains catchment, it is also one of New Zealand’s most polluted wetlands. This makes it a model ecosystem for studying the conflict between freshwater ecology and agriculture - and also something of a mystery.

Dr Sergio Morales (Microbiology and Immunology) explains that agricultural waste increases nutrients in water, potentially triggering persistent algal blooms. However, Otago researchers found that the prevalence of nitrogen and phosphorous (the two main agricultural contaminants) is greater in Lake Ellesmere’s tributaries than in the lake itself.

“This suggests that something in the lake is playing a strong role in purifying the water.”

To find out exactly what is happening, Morales and his colleagues are focusing on the role of micro-organisms.

“Nitrogen [nitrate or urea] flowing into the lake can encourage the growth of algae, or denitrifying bacteria can actually purify

waterways by transforming nitrogen into harmless nitrogen gas. Are these two processes competing for nitrogen in the lake and, if so, which process wins? However, there could be a sting in the tail of this. Under certain conditions, some of the nitrogen is converted into nitrous oxide which has a greenhouse gas potential roughly 300-times greater than carbon dioxide.”



Dr Federico Baltar, Dr Sergio Morales, Dr Candida Savage: “... something in the lake is playing a strong role in purifying the water.”

Disaster results

Cantabrians who experienced serious earthquake-related adversity are twice as likely to be addicted to smoking and 40 per cent more likely to have mental health conditions such as major depression and post-traumatic stress disorder than people who did not experience the 'quakes, findings from the Christchurch Health and Development Study show.

However, for Cantabrians who experienced minimal trauma, loss or ongoing disruption associated with the 'quakes, the psychological impact was less strong.

The findings from the University of Otago, Christchurch's longitudinal study were published in the *JAMA Psychiatry* journal.

The researchers, led by Professor David Fergusson, are in a unique position to gather facts on the psychological impact of earthquakes. For more than 30 years Fergusson and his colleagues have collected in-depth data on the mental health of a group of more than 1,000 people born in Canterbury during 1977. By chance, just over half of study participants were in Canterbury for the majority of the 'quakes.

"These findings are likely to apply to other areas affected by major disasters and highlight the need to provide increased support to those most severely affected by these disasters," Fergusson says. "It is also clear, however, that the majority of those facing disasters are resilient and do not develop mental health problems."

The findings of Fergusson's study relate to those aged in their early 30s (study participants) and are less informative for older or younger people. The study was funded by the Health Research Council, Cure Kids, the Canterbury Medical Research Foundation and the New Zealand Lottery Grants Board.



Professor David Fergusson: "These findings ... highlight the need to provide increased support to those most severely affected by these disasters."

Pressing need for change

The Press Council needs to update for the digital age, according to Associate Professor Selene Mize (Law), who is researching the council's handling of complaints about what newspapers, magazines and digital media publish on their websites.

Mize initially became interested in the subject when helping the La Leche League complain about newspaper coverage of the controversy over a television advertisement that included footage of All Black Piri Weepu bottle-feeding his baby.

"While the Press Council has done some good things, its performance with respect to complaints about online content has been sub-standard," says Mize. "It has applied print rules to the online forum and that is inappropriate."

She gives the example of people having only a month from the time something first appears online to complain to the publisher.

"For a newspaper, that makes sense," says Mize, "but online items are still being accessed many years later. This policy has been improved recently, but still does not permit people to complain for as long as an item remains online."

She is also troubled by websites continuing to note that an article "was the subject of a Press Council complaint", rather than clearly stating that the council upheld the complaint.

The Press Council recently decided to extend its coverage to complaints against new digital media, including bloggers. Mize doubts that the council is best suited to handle such complaints -

even if bloggers were willing to pay the council's voluntary annual membership fee, abide by its statement of principles and accept its complaints processes.



Associate Professor Selene Mize: "While the Press Council has done some good things, its performance with respect to complaints about online content has been sub-standard."

Contrary research

If someone says to you, “Everything I am now telling you is a lie”, is it true or false?

This might sound like no more than a dinner party conversation piece, of passing interest for most people, but for Dr Zach Weber (Philosophy) such apparent contradictions are of abiding fascination.

Weber has been awarded a Fast-Start grant from the Marsden Fund to research Models of Paradox in Non-classical Mereotopology.

He says that he is seeking to use tools and language from mathematics and logic to explain why paradoxes exist.

“I am trying to draw a mathematical picture of paradoxes, using cutting-edge tools from formal logic, to model what they look like in a visual way, in the hope that it will shed some light on why there are these paradoxes and what makes them tick.

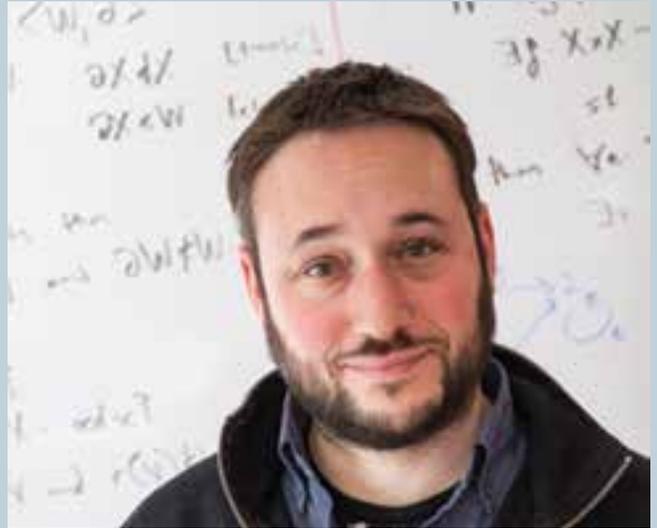
“Others have tried to make them disappear, but my thought is that they are a part of the landscape and we should appreciate them and try to understand them.”

Weber points to dramatic developments that have previously arisen from such philosophical research.

“Historically, logic led to the invention of the digital computer and the computer information revolution, and this project could have possible applications down the road in computer science - you never know.”

Whatever the outcome, Weber believes that such research is fundamentally worthwhile in its own right.

“I think that this kind of work is important, because these are problems that arise in such basic concepts as truth that everybody uses every day and walks around imagining are unproblematic.”



Dr Zach Weber: “I am trying to draw a mathematical picture of paradoxes ... to model what they look like in a visual way.”

Controlled tests

How young children exercise self-control is central to work being carried out by Dr Damian Scarf of the Department of Psychology.

“It’s known that children who can control their impulses grow up to be adults who can. This is accepted,” says Scarf.

“There’s also a correlation between self-control and school readiness,” he says. “The same reasons why children would fail self-control tasks may be why they get distracted in school.”

Scarf’s longitudinal study employs a variation of the “Marshmallow Test”, with three- and four-year-old children given the choice between one sticker now or five stickers 15 minutes later. The children are filmed so their responses can be analysed.

“With the three year olds, it’s always now. They’re looking at the one sticker and don’t even see you take away the five. Once you draw their attention to the critical aspects of the task, however, they behave more like a four year old,” he says.

“It isn’t just about whether the child chooses the instant reward. It’s also about where they’re looking and for how long, and what delay strategies the successful kids use.”

These strategies include things such as distraction, where the child looks at or thinks about something else, or where the child focuses on the benefits of waiting.

Scarf’s lab now has an eye tracker, which will give a more sensitive reading of what the children are looking at.

The project will follow up with children when they reach school, with teachers and parents completing questionnaires, to see if measures of attention allocation collected with the eye tracker relate to outcomes at school.



Dr Damian Scarf: “The same reasons why children would fail self-control tasks may be why they get distracted in school.”

Thinking about shopping

The healthiest food choices are not always the easiest ones to make, says Dr Ninya Maubach (Department of Marketing).

Maubach is researching the strategies supermarket shoppers use to make decisions about which foods to buy.

"Specifically, I want to identify which sources of information shoppers look at most often, how the information is applied and assess whether this helps consumers form accurate impressions.

"The food industry is fiercely protective of its ability to control the message consumers receive about foods. The industry has lobbied strongly against Multiple Traffic Light food labels all over the world, despite very good research evidence of its effectiveness."

Her current project deals with "heuristic decision-making", which is a strategy - or cognitive process - that ignores part of the information in order to make decisions more quickly, frugally, and/ or accurately than more complex methods.

"We know from observational research that shoppers make decisions very quickly - typically within a few seconds of approaching a product display and usually without even picking up any packs to view the objective nutrition facts."

Maubach will use a range of qualitative methods, including the use of Tobii mobile eye-tracking glasses.

"I'll recruit up to 50 participants, who'll wear these on a

routine grocery shop. Afterwards, I'll use retrospective think-aloud interviews as participants watch their videos, to examine their thought processes.

"The second half of my project is about identifying insights from the eye-tracking research and testing potential new packaging interventions."



Dr Ninya Maubach: "I want to identify which sources of information shoppers look at most often ... and assess whether this helps consumers form accurate impressions."

Palatable change

University of Otago, Wellington researchers are collecting evidence to encourage the government to implement climate change mitigation policies in the transport sector that could also have significant health benefits.

Dr Caroline Shaw (Department of Public Health) says the transport sector is one of the fastest growing sources of emissions, and an obvious area for implementing policies aimed at mitigating climate change and the associated long-term health impacts.

But it is also an area where such policies can have huge short-term health benefits - such as fewer vehicle injuries, more physical activity and less air pollution. This, she says, is potentially a way to make climate change mitigation policies a bit more palatable.

A systematic review led by Shaw has shown that international evidence on the health co-benefits of climate change mitigation policies in the transport sector is currently limited. To help fill this "gaping lack" of evidence, she is looking at historical petrol prices in New Zealand over the last decade to see whether increased petrol prices coincide with improved air quality.

She describes her HRC-funded work as a natural experiment for whether a decent, functional carbon tax or emissions trading scheme could be expected to have health benefits through improved air quality.

"This is one way that we can appeal to governments that they should be addressing climate change in the transport sector.

"Transport is one of the few areas where we can actually reduce our emissions. One way to help make it happen is to make it more attractive by talking about the other policy goals that we could achieve - like health - through increased physical activity or decreased air pollution."



Dr Caroline Shaw: Short-term health benefits could potentially make climate change mitigation policies more palatable.

From inspiration to graduation

Otago's Māori health workforce development programmes have led to a dramatic increase in the numbers of Māori students studying in the health professions - and their success.

In 1904 Te Rangi Hiroa became the University of Otago's first Māori graduate and its first Māori medical graduate. Not only did Te Rangi Hiroa take up leadership roles in Māori health, he was globally recognised as an anthropologist, making significant contribution in Aotearoa and the broader Pacific. Alongside other Māori public health leaders, he played a pivotal role in supporting the health and well-being of Māori communities in the early 20th century.

Māori health workforce development is well recognised as a key strategy for improving Māori health. Alongside expectations of cultural competence among all health practitioners, Māori patients and communities benefit from having Māori practitioners who relate to Māori world views, have passion and commitment to Māori health and who are connected within a diversity of Māori whānau, hapū and iwi.

Since the graduation of Te Rangi Hiroa 110 years ago, Māori have continued to train in Otago's health professional programmes and Māori graduates have gone on to undertake leadership and practitioner roles in health and Māori health. Recent

research reinforces this view, with the vast majority of respondents who were established in general practice or specialty practice contributing significantly to Māori health in a range of roles and localities.

Despite positive increases in the numbers of Māori in health professional roles, New Zealand's health workforce data show Māori remain grossly under-represented in the health professional workforce. Currently, Māori make up between two and four per cent of registered health professionals in medicine, dentistry, pharmacy and physiotherapy, and less than two per cent of practitioners in radiation therapy, dental technology and medical laboratory science.

In 2008 and 2009, in response to the under-representation of Māori within the health professions, the University of Otago's Division of Health Sciences and its Office of Māori Development formed a relationship with the Ministry of Health to explore Māori health workforce development. As a result, in 2010 a new culturally responsive foundation programme, Tū Kahika, was implemented and the Māori Health Workforce Development Unit (MHWDU) was established.

The MHWDU sits within the Division of Health Sciences and provides a strategic and operational hub for programme development, operations, evaluation and quality. The environment supporting this has been one of positive collaboration across the Tertiary Education Commission, Foundation Studies, residential colleges, Division of Sciences and the Māori Centre to name just a few. Thus, these initiatives have been supported and contributed to by many.

Since its establishment, the MHWDU has incrementally built on the programmes delivered, all aimed at meeting the objective of supporting an increased number of Māori health professional and health science graduates. The MHWDU comprises a small team of very passionate and skilled staff who are committed to supporting Māori educational excellence, addressing inequity and reducing educational disadvantage.

Aligned with recognised best practice in Māori education and tertiary transition, the MHWDU team embeds their activity within the context of a Māori world view, recognising the importance of tikanga, te reo and core Māori values within programme development and delivery. Striving for excellence is central to all aspects of the team's approach to supporting Māori student pathways and achievement.

The MHWDU now provides a strategic and operational hub delivering programmes, "from inspiration to

“Over the next two years, New Zealand's health workforce will begin to be impacted upon by the increased number of Māori health professional graduates from Otago ...”



Associate Professor Joanne Baxter (right) and the MHWDU team (from left): Zoe Bristowe, Sarona Fruen, James Meager.
Photo: Alan Dove

graduation”. This includes four main programme areas:

- **Te Ara Hauora** – secondary school, community engagement, outreach and recruitment
- **Tū Kahika** – culturally responsive foundation programme (with Foundation Studies)
- **Te Whakapuāwai** – a success and achievement programme working with Māori students in Health Science First Year
- **Tū Tauira Hauora** – a programme aimed at providing support and professional development for Māori students in health professional and health science degree programmes.

The outcomes in relation to increases in Māori student pathways into, and achievement within, health sciences and health professional programmes have been outstanding, with growing numbers of Māori students studying health at Otago and enhanced Māori student academic achievement.

In 2014, there has been a 40 per cent increase in the number of Māori students studying in Health Sciences First Year and more than 80 per cent increase in the number Māori students studying in health professional programmes at Otago over the past four years. In particular, medicine and dentistry have seen increasing numbers with close to 15 per cent of students entering medical school and 10 per cent of students entering dental school being Māori in most recent intakes. Qualitative feedback is also positive. Evaluation of programmes shows a high degree of student engagement and very positive student and whānau satisfaction.

These outcomes have been contributed to by the Division of Health Sciences’ aspirational goals to have a graduate pool and health workforce that reflects New Zealand’s population. Over the next two years, New Zealand’s health workforce will begin to be impacted upon by the increased number of Māori health

professional graduates from Otago, and research around short- and long-term outcomes is underway.

The University of Otago’s contribution to the Māori health workforce has always been incredibly important. Recent increases in the success of Māori student pathways to and through health professional study signals a further step in Otago’s contribution to the Māori health workforce, to Māori health and to the broader New Zealand health sector.

Te Rangi Hiroa and other early Māori health leaders graduating from Otago have provided us with a powerful legacy. The successful outcomes that the University of Otago is achieving in Māori health workforce development and Māori education provide an ongoing platform for honouring and building on this important legacy.

Associate Professor Joanne Baxter
Associate Dean Māori, Director Māori Health Workforce Development Unit: Division of Health Sciences

Te Pā opens

The Otago University Childcare Association's new facility, Te Pā, has been officially opened, providing high-quality childcare and learning amenities in a safe, comfortable and aesthetically pleasing environment.

Eleven separate buildings were demolished on the on-campus site between Castle Street and Montgomery Avenue to make way for the new centre.

However, the original look and feel of the Castle Street frontage has been retained with the recycling of bay windows, fascias and other decorative features from the former Edwardian villas. And, on the Montgomery Avenue side of the complex, project architects Parker and Warburton Team Architects have designed a modern interpretation of the classic villa.

The new facility effectively provides four childcare centres in the one location:

- Te Pārekereke o Te Ki: a bilingual centre for up to 28 children aged up to five years
- Te Maioha: two rooms of up to 16 children under two years of age
- Te Puna and Te Uru: each catering for two groups of 20 children aged from two to three and a half, and three and a half to five years of age.



The walkway between the Castle Street and the Montgomery Avenue blocks suggests a journey from "the mountains to the sea".



Inside the playrooms a design imperative was to suggest domestic rather than institutional settings.



The buildings were designed around the existing trees on site, where possible.

Photos: Graham Warman



Cementing the future

Building developments totalling around \$650 million over the next 15 years will further cement the University of Otago's position as a leading teaching, learning and research institution.

The University's Priority Development Plan was approved in principle by Council in June and follows the guiding principles of, and many of the projects signalled in, the 2010 Campus Master Plan.

At the top of the list is a new Dental School, recognising the importance of Otago's school as the only tertiary training facility for dentists in New Zealand. Also given high priority are a major renovation of the Science precinct and upgrading of research project facilities mainly for Health Sciences in Dunedin.

Other projects on the list include:

- the construction of teaching, learning and research space at the Portobello aquarium with a longer-term goal of a new marine science teaching facility and aquarium, preferably in the Harbour Basin area
- new arts and biomedical research buildings
- new music facility (incorporating a new Centre of Performing Arts) and new facilities for the Department of Botany

- new research facility in the Christchurch Health Precinct for the University of Otago, Christchurch
- redevelopment of the former Unipol building, and a new student and academic services hub
- improvements to access and safety of the Commerce Building and refurbishment of buildings in the University's historic precinct
- completion of the refurbishment at the University of Otago, Wellington
- continuation of seismic strengthening work.

Vice-Chancellor Professor Harlene Hayne says the Priority Development Plan shows what the University intends to focus on in the medium term with regards to its built environments.

"We want to improve what is already a first-class experience for students, teachers and researchers, and we want the campus to be enjoyed by the communities in which we live."

However, she also points out that it is a living document and other projects may be added, or removed, as situations and needs change.





Dr Karyn Paringatai with Prime Minister the Rt Hon John Key.

Supreme teaching award

For the third successive year, an Otago academic has won New Zealand's top prize for tertiary teaching. The Prime Minister, the Rt Hon John Key, presented his 2014 Supreme Award for Tertiary Teaching Excellence to Dr Karyn Paringatai (Ngāti Porou), lecturer at Te Tumu - School of Māori, Pacific and Indigenous Studies.

The Supreme Award recognises Paringatai's 12 years of teaching learners from a wide variety of backgrounds to become a "whānau of champions" for the revitalisation of te reo Māori.

Her award citation noted that: *"as a committed practitioner of Kaupapa Māori and a passionate student and scholar of te reo Māori and Māori performing arts, Karyn Paringatai personifies excellent teaching. Her revival of the ancient practice of teaching in the dark and subsequent research into its benefits is world leading and has the potential to positively impact teaching*

in a range of disciplines, including law. She is an exceptional teacher whose teaching excellence transcends her particular discipline and the boundaries of ethnicity."

Paringatai is the third Otago staff member to have won the supreme award over the past three years. Last year it was awarded to Associate Professor Gordon Sanderson from the Dunedin School of Medicine and, in 2012, to Associate Professor Rhiannon Braund of the School of Pharmacy.

A total of five Otago academics have won the Prime Minister's Supreme Award for Tertiary Teaching Excellence in the past 12 years, a level of success unmatched by any other tertiary institution.

Confucius Institute launched at Otago

The Otago satellite office of the Confucius Institute in Auckland was recently formally launched in Dunedin. The institute is dedicated to enhancing understanding between China and New Zealand.

The launch also marked the development of a Memorandum of Understanding that will see the University work with the Confucius Institute at the University of Canterbury to facilitate the promotion of Chinese language and culture in schools and the community of Dunedin.



Arts fellows selected

The University's support of New Zealand's multifaceted arts community continues with the selection of its 2015 Arts Fellowships.

Wellington poet Louise Wallace has been named Robert Burns Fellow; Auckland artist John Ward Knox as Frances Hodgkins Fellow; Hamilton-based composer Jeremy Mayall continues as Mozart Fellow; US-based dance therapist Uzoamaka Nwankpa as Caroline Plummer Fellow in Community Dance; and Robyn Belton and Jennifer Beck will be the University of Otago College of Education Creative NZ Children's Writers in Residence.

Health research supported

Otago researchers gained more than \$31 million to support their innovative studies in this year's Health Research Council annual funding round.

The researchers were awarded 24 contracts, including three multi-million, five-year programmes, 14 projects and seven grants for emerging researchers. Otago's successful applicants spanned the University's campuses in Dunedin, Christchurch and Wellington and, together, gained the largest share of funding of any institution in this latest round.

Otago partner in National Science Challenges

The University is a partner in all four National Science Challenges for which funding has been announced so far.

The four challenges involve:

- developing high-value foods with health benefits
- understanding the role of the Antarctic and Southern Ocean in determining climate and future environment
- protecting and managing New Zealand's biodiversity, improving its biosecurity and enhancing our resilience to harmful organisms
- enhancing the use of New Zealand's marine resources within environmental and biological constraints.

These are among 10 challenges selected last year to tackle the biggest science-based issues and opportunities facing New Zealand. They provide an opportunity to align and focus the country's research on large and complex issues by drawing researchers together from different institutions and across disciplines to achieve a common goal through collaboration.

Otago debaters excel

The Otago University Debating Society (OUDS) has continued its run of successes by recently taking top honours in New Zealand's oldest and most respected national university debating tournament, Joynt Scroll.

Earlier this year, OUDS was named in the top tier of competitors for the World Universities Debating Championship 2015 team allocations, alongside 10 other prestigious institutions including Oxford, Yale, Harvard and Cambridge.

The ranking reflects OUDS' performances at the past three championships, in which it defeated universities such as Harvard, Yale, Oxford, Cambridge, London Union and Princeton. Most notably, Otago reached the 2013 grand final - the first time in OUDS' 125-year history that an Otago team has done this.

The 2015 world championships will be held in Malaysia in late December and early January with around 400 teams competing.

Science investment funds

Six innovative University of Otago-led research proposals will receive \$10.15 million in new science investment funding.

The new programmes are being supported through the health and society, high-value manufacturing and services, and biological industries funds administered by the Ministry of Business, Innovation and Employment.

The programmes involve developing:

- A mathematical model for New Zealand policy-makers to assess the benefits, cost and cost-effectiveness of a range of health interventions
- Improved titanium implants to reduce complications and implant failure
- Protein from lower grade wool as a premium food ingredient
- Medical technology allowing neurochemicals to be non-invasively delivered to the brain to treat diseases such as Parkinson's
- Highly accurate portable gravity-measuring devices using atomic optics for geo-science and other field applications
- Compounds for infant formula that stimulate the growth of healthy bowel bacteria in a similar way to breast milk.

Deputy Vice-Chancellor (Research and Enterprise) Professor Richard Blaikie says these proposals exemplify the innovative, world-leading research undertaken at Otago.

Appointments



Professor **Paul Brunton** as Dean of the University's Faculty of Dentistry. A leading UK dental researcher, Professor Brunton comes to Otago

from the University of Leeds' School of Dentistry where he was Director of Student Education, providing strategic leadership to curricula development and innovation.

Professor **Vernon Ward** as Dean of the Otago School of Medical Sciences. An internationally respected virologist,



Professor Ward was formerly Head of the University's Department of Microbiology and Immunology, one of the five large research-intensive departments that

comprise the school.

Christchurch paediatric surgeon Dr **Kiki Maoate** as the University of Otago, Christchurch's first Associate Dean, Pacific, a role established to give priority to Pacific Islands issues in the University's teaching, research and links with community.



Professor **Nancy Longnecker** to a Chair in Science Communication. An internationally regarded science communicator, Professor

Longnecker joins Otago from the University of Western Australia, where she developed and led its science communication teaching and research programme.

Professor **Tim Stokes** to the Elaine Gurr Chair in General Practice at the Dunedin School of Medicine. A leading UK academic general practitioner, Professor Stokes was formerly a senior clinical lecturer in Primary Care at the University of Birmingham. He has also undertaken more than a decade of work with the UK's National Institute for Health and Care Excellence.

Achievements

Associate Professor **Keith Probert** (Marine Science) received New Zealand's top award for marine science in recognition of his outstanding contribution to the field. A Lifetime Achievement Award was presented to this nationally and internationally respected benthic ecologist at the New Zealand Marine Science Society's annual conference.

Professor **Parry Guilford** (Biochemistry) won the Health Research Council's Beaven Medal, which recognises excellence in translating research into



clinical practice. Professor Guilford's ground-breaking research into stomach cancer has saved many lives worldwide. He has also played a key

role in developing a simple urine bladder cancer test that is now on the market. (See story pages 13-15.)

Associate Professor **Lisette Burrows** (Physical Education, Sport and Exercise Sciences) received Physical Education New Zealand's Sir Alexander Gillies Medal in recognition of her research into the place and meaning of health and physical culture in young people's lives. She is only the 10th person to be awarded the medal since its inception in 1967.

Professor **Colin Townsend** (Zoology) received the 2014 Award of Excellence of the Society for Freshwater Science, which is the leading international body with a focus on stream ecology. The award recognises his extensive research contributions exploring how flow-related disturbance, invasive species and multiple agriculture stressors affect stream ecosystems.



Professor **Glenn Summerhayes** (Anthropology and Archaeology) was officially made an Officer of the Order of Logohu by the Papua New Guinea Governor-

General in recognition of his decades-long contributions to the archaeology of that country.

Associate Professor **Peter Dearden** (Biochemistry) was awarded Genetics Society of AustralAsia [sic] Ross Crozier Medal for outstanding contributions to genetics. The medal recognises his work on evolution and development, epigenetics and developmental plasticity.

Professor **Greg Cook** (Microbiology and Immunology) is this year's recipient of the University's highest distinction, the Distinguished Research Medal. Professor Cook is a world-leading authority on how bacteria grow and survive in extreme conditions and has gained an international reputation for his innovative studies into bacterial physiology. (See story pages 10-12.)

Dr **Rob Middag** (Chemistry) received a 2014 Heineken Young Scientists Award from the Royal Netherlands Academy of Arts and Sciences in recognition of his contributions to oceanic trace elements research.

Associate Professor **Haxby Abbott** (Surgical Sciences) and Dr **Peter Fineran** (Microbiology and Immunology) are co-recipients of the University's Carl Smith Medal and Rowheath Trust Award. The medal and award recognise outstanding research performance of early career staff at the University.

Dr **Anita Dunbier** (Biochemistry), Dr **Khaled Greish** (Pharmacology and Toxicology), Dr **Jason Gurney** (Public Health, Wellington), Dr **Anna Pilbrow** (Medicine, Christchurch) and Dr **Zach Weber** (Philosophy) are the latest recipients of the University's Early Career Awards for Distinction in Research.

Professor **Murray Thomson** (Oral Sciences) received the 2014 International Association for Dental Research (IADR)

Distinguished Scientist Award in Geriatric Oral Research. Professor Thomson is the only New Zealander to have won two prestigious awards from the IADR. In 2010, he received its H. Trendley Dean Distinguished Scientist Award in Epidemiology and Public Health.



Dr **Angela Wanhalla** (History and Art History) received Australasia's most prestigious history award, the Ernest Scott Prize, for her

book exploring the history of inter-racial relationships in New Zealand, *Matters of the Heart*.

Emeritus Professors

The University Council has this year awarded the following academics the status of Emeritus Professor: Professor **Jean Fleming** (Anatomy), Professor **David Green** (Anatomy), Professor **Tom Kardos** (Oral Sciences), Professor **Alan Musgrave** (Philosophy), Professor **John Smillie** (Law) and Professor **Colin Townsend** (Zoology).

Obituary

Professor **Jules Kieser** (1950-2014). Professor Kieser joined Otago as Chair and Head of Department in Oral Sciences in the Dental School in 1996. He is remembered as a dynamic academic who made outstanding contributions to teaching and research at the University, and to forensic services in New Zealand and abroad.

The University of Otago Magazine
now has its own website

www.otago.ac.nz/otagomagazine

If you would prefer to read the magazine online
and no longer receive a hard copy, please email
database.alumni@otago.ac.nz

Marsden online

A new online archive at the Hocken will revolutionise research into a key period of New Zealand history.

Historians are eagerly anticipating the fruits of a ground-breaking University of Otago Library project to place thousands of New Zealand's earliest missionary archives online so they can be mined for new clues to European and Māori contact up to 200 years ago.

Like other modern research tools such as the National Library's Papers-past website, making the transcribed hand-written papers of pioneering Anglican cleric Samuel Marsden available in an online archive has the potential to revolutionise research into this key period in New Zealand's history.

Hocken Librarian Sharon Dell says a pilot iteration of the Marsden online archive was to be launched at the Hocken Library in early November and will contain digitised copies (3,651 pages) of nine Marsden journals and 593 letters, ranging in dates from 1808 to 1823, between Marsden and missionaries Thomas Kendall, William Hall, John King and others involved in setting up the earliest New Zealand missions.

The establishment of the online archive is timed to coincide with the commemoration of the bicentenary of Marsden's first sermon on New Zealand soil, on Christmas Day 1814. There is also an exhibition at the Hocken. It is hoped that a mobile version of the exhibition can travel to venues in Northland.

These original missionary archives are only available thanks to the foresight of Hocken Library founder and Dunedin philanthropist Dr Thomas Morland Hocken, who recognised the value of these early Church Missionary Society archives and transported them back to New Zealand from England in the early 1900s.

Since then, the thousands of letters and papers, including diary entries detailing life in early missions here, earliest written recordings of the Māori language, diet, culture and beliefs, have remained in their original form in the careful care of the library.

Dell says the project is a major technological milestone for the University Library and means access to the historical resource will be vastly improved and available nationally to researchers anywhere and at any time. The project has also provided the opportunity to make use of the work of Dunedin historian Associate Professor Gordon Parsonson, now retired and in his 90s, who has been painstakingly transcribing the Marsden papers since the 1940s.

"He became locked in the Hocken stacks one afternoon and started reading some of Marsden's journals. From then on, he was hooked. Because of his dedication to this work, we can use his transcribed papers in the database alongside the originals," she says.

"They are a rich resource on early interactions between Māori and Pākehā, the origins of Christianity and the development of Te Reo Māori as a written language - and researchers are already lining up to interrogate the data."

So far, 3,600 pages of Marsden's documents have been scanned to a high specification and resolution, with specialist staff from the University Library having to wear clothes of a

special non-reflective colour to achieve optimal visual clarity when the pages were scanned.

Researchers will be able to type in key words such as missionary or Māori names, place names or ship names, as well as dates, and search the text for all references to those items and use some of the tools to do more sophisticated searches. Library staff have worked with researchers across a number of disciplines to develop the online archive and include tools to enable them to use and interrogate the material in new ways.

"It is not well-known that the Hocken holds them so we feel that making these materials accessible to a wider audience and especially to the people of Auckland and Northland is something we can uniquely contribute to the bicentenary; in fact we feel strongly obligated to do so."

JO GALER



Roll of Māori attending the mission school and other documents from the Marsden papers. Hocken Collections. *Uare Taoka o Hākena*. Photo: Alan Dove

HOCKEN EXHIBITIONS

Whakapono: Faith and Foundations

Until 7 February 2015

Material from the Hocken and Alexander Turnbull Library, and archaeological objects from University of Otago investigations of the Marsden Cross site.

Alumni memories

WITH

Lisa Scott

Lisa Scott, an English and Film & Media Studies alumna, is a prolific writer, well-known to many. Her work has won several national awards, including a Qantas for Humour/Satire in 2010 and Magazine Publishers' Association Journalist of the Year in 2011. Her first book, *Travels With My Economist*, was published in 2012 and described by one critic as "eye-wateringly honest and laugh-out-loud funny".

Lisa writes "Tales from the Powder Room" for the *Otago Daily Times*, "Last Laugh" for *NEXT* magazine, and features for *North & South* and *NZ Life & Leisure*. She is also a regular panelist on Radio New Zealand's Afternoons with Jim Mora. Lisa's second book, *Kindness & Lies* - which she describes as "part memoir, part how-to guide" - was launched at the University Book Shop in October.

Lisa Scott's second time around at Otago was her most successful. After taking time out from study to focus on parenthood, she returned to undertake a BA in English and Film and Media Studies. "Making the decision to study at Otago," she says, "saved my sanity and expanded the parameters of my world. Best of all, it fired my ambition. The first time I got an A for something I glowed for a week."



Lisa Scott: "... going to Otago was the only thing in my whole life I ever did on purpose. Thank goodness."

Of how influential her studies at Otago were, Lisa recalls, "Writing essays for Film and Media and for English helped me find my voice. Plus, doing such a wide variety of literature papers - Old English, New Zealand literature, Shakespeare, 20th Century American - encouraged a bookaholic-ism that stands me in great stead in my career today, especially in broadcasting, where it always pays to be able to toss off a fabulous quote or two."

Lisa fondly recalls her favourite lecturer from the Department of English: "The late and legendary Bill Dean, a tiny, whip-smart man often found propping up the downstairs bar at the Cook." Professor Chris Ackerley was another influential lecturer. "He held forth on *Under the Volcano* with bombastic verve," she recalls.

"Thierry Jutel's incredibly kinetic, almost surrealist Film and Media lectures" are also an enduring memory. "The idea of applying Marxist or Lacanian mirror theory to movie-watching blew my mind. And we actually made a short film of our own, as a class - but I think I ended up on the cutting-room floor."

Completing her studies at Otago, Lisa says she felt "unutterably sad at the end of my academic life. University had been a time of endless possibility, a benign shelter and leaving was an awful wrench."

The influence of her time at Otago, however, has been profound. "Luckily, a career made up of happy accidents looks cleverly thought out viewed with the distance of time. Really, going to Otago was the only thing in my whole life I ever did on purpose. Thank goodness."

Supporting Otago

WITH

Allan Portis

Even though Allan Portis is a great supporter of the modern University of Otago, part of him remains nostalgic for the way he was able to both study and learn his profession hands-on.

Today he is a mainstay of Otago's alumni group in Canada, where he made his home back in the 1970s while forging a highly successful career with The Bank of Nova Scotia.

His own experience of gaining accounting qualifications in the 1960s was quite different to that of today's commerce students.

Growing up in the tiny community of Pukeuri, near Oamaru, both he and his twin brother wanted to be accountants. That opportunity came through the Dunedin firm Barr, Burgess & Stewart – the present day PricewaterhouseCoopers.

"In those days when you did accounting you worked for an accounting firm. The office was very structured. You sat at the front and then the next year you moved back. People were at various stages of accounting and typically, in the fourth year, they took a year off and did it full time – which is what I did. I liked it so much I stayed on and studied for an arts degree as well!"

Study would start with an 8am lecture before work. There would be another lecture at 5pm after which he would go home, have dinner, head down to the library and study until 11.

"What did I take away from that? Hard work – no fooling around!" he laughs. "It actually was a wonderful thing. You had the partners there as role models and they taught part-time at the University so there was this real link between the University, work and study."

During his University holidays he would return to Pukeuri and its freezing works. "It was dirty monotonous work, but it gave me an extra incentive to get an education."

Like many young New Zealanders Portis felt the pull of the big OE. He had noticed that the young accountants who went to the UK, Australia and the States always came home, but the ones who went to Canada stayed. "So I thought there must be something in this."

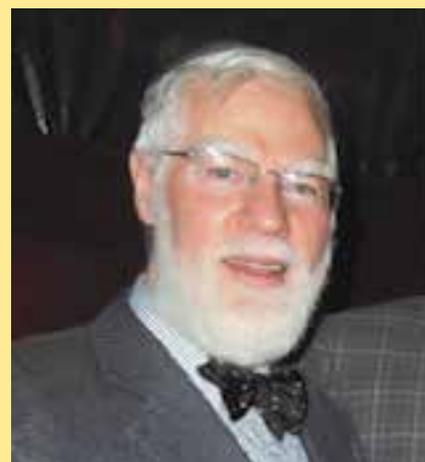
After a stint in Melbourne with accountants Arthur Andersen & Co he joined their Vancouver office, before going on to the University of Western Ontario's Graduate School of Business in London, Ontario, where he gained an MBA. In 1975 he joined The Bank of Nova Scotia, beginning a 30-year career which saw him rise to become vice-president in its International Corporate Risk Management Division.

When Portis retired in 2005 he wanted to keep busy.

"I looked around and said: What got me here? I realised I owed a great deal to my New Zealand education." He is actively involved in supporting Waitaki Boys' High School and getting involved with Otago alumni was another way he could give back.

Initially he served on the Board of the Alumni of the University of Otago in America Inc. but eventually joined forces with the now late Brian Merrilees, another alumnus from Toronto, to develop something with a more Canadian flavour.

Initially Portis and Merrilees had informal gatherings at a pub over pizza and beer. "The idea was to keep it informal and rely on Alison Finigan and her colleagues in the Alumni Office to



Allan Portis: "I realised I owed a great deal to my New Zealand education."

handle our membership lists, donations and communications."

They eventually linked up with Otago's International Exchange Programme, which encourages third- or fourth-year students to travel overseas for a semester or two.

About 30 students a year head for Canada so they fund up to four Canadian Travel Awards of \$NZ2,000 each. So far 10 recipients over the last four years have studied at universities across Canada.

"Canada has a lot to offer on the organisational, cultural and interpersonal side of things and it is a good place for students to gain life experience," he says.

He and his wife Santa also get involved by welcoming and hosting many Otago students when they first arrive.

The Dunedin connection remains strong and they have purchased a house in Dunedin where they live several months a year.

Portis also keeps busy writing a blog, with sensible management of money and giving back as key themes.

"Whether it's health, wealth or relationships, a lot of folk get to retirement and say, 'I wish I'd done it differently'," he observes.

"The rules are fairly simple. It is about establishing the proper habits especially at a young age – and they say any habit can be changed in 21 days."

FROM WALES

Rising young baritone Kawiti Waetford recently moved from Dunedin to Wales, thanks to the support of the Kiri te Kanawa Foundation and the Ngarimu Māori Battalion Scholarship, to study at the renowned Cardiff Academy of Voice – under its internationally celebrated director, Dennis O’Neill.

Although he suffered a severe antibiotic reaction in May that stripped his vocal cords, he successfully recovered and achieved his master’s degree in Advanced Vocal Studies. Kawiti is extremely grateful for the continued mentorship of Dame Kiri who regularly shares her advice and time – he even visits her home for training and the occasional afternoon of oil painting.

A few other highlights of Kawiti’s time in Wales include singing at Dame Kiri’s 70th birthday celebration, performing at the UK launch of Eleanor Catton’s book *The Luminaries*, and being presented with the Ngarimu VC and Māori Battalion Masters Award. Kawiti plans to continue his post-master’s study in Wales.



FROM THE FALKLAND ISLANDS

While completing her MSc (Surveying and Marine Science) and PhD (Zoology) at the University of Otago, Amélie Augé worked in collaboration with the Department of Conservation, studying the New Zealand sea lions. This included five fieldwork summers in the Auckland Islands.

Following two years in tropical North Queensland, where Amélie had a postdoctoral fellowship at the ARC Centre of Excellence for Coral Reef Studies (James Cook University) working on the Great Barrier Reef coast, she is now back in the sub-Antarctic world of seals and penguins.

She now works at the South Atlantic Environmental Research Institute (SAERI) based in Stanley, Falkland Islands, as a marine ecologist. Nathan, her partner, is

also an Otago alumnus and there is also a third Marine Science alumnus working in the Falklands.

Amélie’s research at SAERI relates to spatial ecology (such as looking at where penguins go to find their food at sea and why they choose particular areas) and spatial planning. She works in collaboration with international scientists, studying and protecting the islands’ magnificent and abundant marine life. Amélie, Nathan and Maddie, their travelling

dog, are very much enjoying their time in the Falklands; in many ways, says Amélie, it even reminds them of Otago.



WHERE IN THE WORLD ARE YOU?

Email your 100-word “postcard” to alumni@otago.ac.nz

We want to stay in contact with you wherever you are. Visit alumni.otago.ac.nz/where-in-the-world-are-you to find out where Otago graduates take their place in the world.

While you are there you can update your profile, find lost friends and check for alumni events in your area.

Alumni notes

Giving back



Blair Hesp is the driving force behind Kainic Medical Communications, an award-winning medical communications company providing overnight medical writing support to clients in the Northern Hemisphere and, more recently, New Zealand-based biotechnology companies wanting to communicate their research internationally.

During his PhD studies, Blair investigated the effects of the neurotoxin kainic acid on the brain and discovered a potential age-related mechanism that impacts a person's ability to tolerate neurotoxins. After graduating, he studied business and law, and was then introduced to the world of medical communications during his OE. While in the UK, he worked with multinational pharmaceutical companies and international experts to communicate information about new drugs to key stakeholders – including doctors, funding agencies, patients and internal company audiences.

After returning home, he set up Kainic Medical Communications, which has initiated a programme of giving back to the University of Otago by sponsoring an international travel scholarship to help postgraduate science students take their research onto the global stage at major international conferences. For more information, visit kainicmedical.com

Première production

In August 2013, Sarah McDougall was conferred with Otago's and New Zealand's first Master of Fine Arts (Theatre Studies). This month, her theatre production *Moon at the Bottom of the Garden*, written in partial fulfilment of the requirements for the degree, will première at the Dunedin Public Art Gallery during the Arts Festival Dunedin.

Sarah's research began with a photograph of "bodgies" and "widgies" and, as part of her research journey, she learnt how to ethically integrate facts from the 1955 "Jukebox Murder" and depict the consequences of that trauma on a fictional "widgie" at the heart of the killings.



Her work is driven by her interest in women's positioning, memory and whakapapa, and she believes her degree allowed her to "explore why I write, about whom I write, in the way I write. It has enabled me to fully research and write my best play yet."

For more information, visit moonproductions.co.nz

Organic success

Janelle and Jacinta Priest (BCom, BA; and BCom) have joined their mother Carol and their sister Fiona, in launching Plantae Certified Organic Skincare – a family business that is going from strength to strength around the world. Rose, pomegranate, lavender and lemon are among Plantae's nourishing botanicals.



Based on the principles of organics, ethnobotany, sustainability, research and education, the business and its products also use the Linnean classification system to ensure that all of its ingredients are fully identified and understood. With products that cleanse, tone and moisturise every skin type, ingredients are certified organic by BioGro New Zealand.

Read the full story about Plantae Certified Organic Skincare and the Otago alumni behind it, on the Otago alumni website: alumni.otago.ac.nz/plantae

Queens Birthday Honours

Alumni recognised in the 2014 Queens Birthday Honours include:

Companion of the New Zealand Order of Merit (CNZM): Professor Graham Le Gros, Dr Paul White.

Officer of the New Zealand Order of Merit (ONZM): Catherine Fitzgerald, Ian Kearney, Lynn McKenzie, Darren Shand.

Member of the New Zealand Order of Merit (MNZM): Jennifer Black, Dr Virginia Hope, Paul Hudson, Professor Donald Maurice, Rachel Noble, Dr Tony Ruakere, Dr Grant Williams.

Companion of the Queen's Service Order (QSO): Judge Shonagh Kenderdine.

Queen's Service Medal (QSM): Ronald Ballantyne, Jane Coughlan, James Mathewson, Ailsa Spicer, Patrick Sullivan.

Reunions + Events

The Development and Alumni Relations Office's busy schedule of events continued throughout April and May with alumni functions hosted in Brisbane (28 April at the Breakfast Creek Hotel), the Gold Coast (29 April at Surfers Paradise Beergarden), Sydney (30 April at The Australian Hotel), Melbourne (1 May at University House), Nelson (27 May at Seifried Estate), and Blenheim (29 May at Wither Hills). The Auckland Māori Alumni event was held on 26 June at the Rendezvous Hotel.

Te Roopu Whai Pūtake (Māori Law Students' Association) 21st birthday celebrations, 22-23 August



Above left: Celebration attendees in Moot Court.

Above: Adam Tapsell (tumuaki 2014) and Kristen Maynard (tumuaki 1993-4).

Left: Chief Judge Wilson Isaac, Warren Alcock, Dr Claire Charters.

Allen Hall centenary reunion, 12-14 September: Party of Light



Far left: Former drama lecturer Jane Oakshott and current Head of Theatre Studies Hilary Halba.

Left: Playwright Roger Hall.

Above: Te Radar remembers ...

Photos: Martyn Roberts

Upcoming reunions

MB ChB Class of 1966 reunion
Dunedin, 19-21 March, 2015

MB ChB Class of 1964 reunion
Dunedin and Central Otago,
8-11 April, 2015

BDS Class of 1964 reunion
Matakana, 4-5 December 2014

MB ChB Class of 1962 reunion
Tauranga, 17-20 March, 2015

MB ChB class of 1954
Dunedin, 29 October - 1 November 2015

MB ChB class of 1955
Dunedin, 6-8 November 2015

Māori Studies/Te Tumu
25th anniversary celebrations
Dunedin, 28-31 May, 2015

Carrington College
70th anniversary reunion
Dunedin, 20-22 November, 2015

**Caroline Plummer Fellowship in
Community Dance** 10th anniversary
and **Moving Communities** conference
Dunedin, 25-29 November 2015

Studholme College centenary
celebrations and reunion
Dunedin, 27-29 November, 2015

For more information

Visit the alumni website: alumni.otago.ac.nz/Events
For reunions, email: reunions.alumni@otago.ac.nz
For functions, email: functions.alumni@otago.ac.nz
Phone: +64 3 479 4516

BONEDOC GIVEAWAY

Bonedoc is a new iPhone app which allows players to perform virtual orthopaedic surgery. Developed by Otago Medical School lecturer Dr Phil Blythe, the game is designed to improve players' surgical technique, with the opportunity to "practise" orthopaedic procedures and take virtual x-rays – all with real-time feedback.



This game is suitable for:

- Medical students
- Theatre staff
- Anaesthetists
- Junior trainees/residents
- Senior trainees/consultants
- Orthopaedic programmes.

To learn more about Bonedoc and to see a demonstration of how the app works, visit bonedoc.co.nz

We are giving away the BoneDoc app to 10 lucky alumni. To enter the draw, email otagoalumni@otago.ac.nz with the subject line "Bonedoc".

Thank you to Phil Blythe and the Otago Innovation Limited team.

Stay current for Otago communications

Email database.alumni@otago.ac.nz to:

- Update or change your postal address
- Receive email notifications (instead of post)
- Sign up to the *eConnect* newsletter
- Receive one "household" copy of the *Otago Magazine*.

Alumni benefits and services

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.

Alumni & Friends Facebook page

Connect with us on Facebook at facebook.com/otagoalumni and engage daily with other Otago alumni and campus life.

Library membership

Use the University libraries for reading, writing, research and relaxation with an alumni library card.

Career development and advice

Whether you are currently searching for a position, considering a career change, or are seeking fresh talent for your business, Otago's Career Development Centre can help: otago.ac.nz/careers

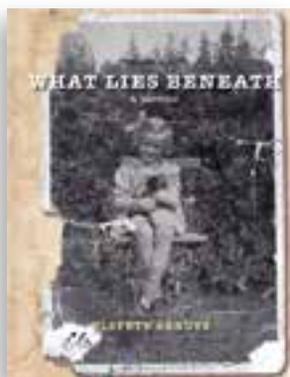
Contact alumni

Get back in touch with lost friends, flatmates and colleagues by emailing friend.alumni@otago.ac.nz

IT training courses

The short courses on campus are now available to alumni. Some are free of charge, and all others receive a special alumni discount of 15 per cent. See the list of courses at otago.ac.nz/ittraining/courses/subject.php

BOOKS



What Lies Beneath

A Memoir

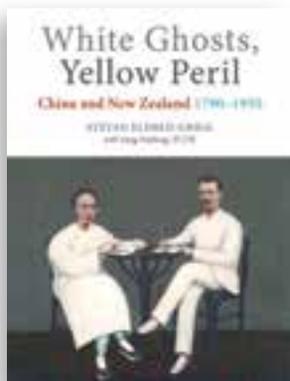
By Elspeth Sandys

Writer Elspeth Sandys was born during World War II, the result of a brief encounter between two people who would never meet again. The first nine months of her life were spent in the Truby King Karitane Hospital in Dunedin, where she was known by her birth name, Frances Hilton James. This would change with her adoption into the Somerville family. A new birth certificate was issued and Frances James became Elspeth Sandilands Somerville.

Tom and Alice Somerville, Elspeth's new parents, lived with their son John in Dunedin's

Andersons Bay. While Elspeth was happy among the ebullient and welcoming Somerville clan, she had a difficult relationship with her adoptive mother, who was frequently hospitalised with mental health problems.

Elspeth's search for her birth parents did not begin until much later in her adult life. What she discovered after an exhaustive search provided answers that were both disturbing and, ultimately, rewarding. *What Lies Beneath* is a searing, amusing, and never less than gripping tale of a difficult life, beautifully told.



White Ghosts, Yellow Peril

China and New Zealand 1790-1950

By Stevan Eldred-Grigg with Zeng Dazheng

White Ghosts, Yellow Peril is the first book to explore all sides of the relationship between China and New Zealand, and the peoples of China and New Zealand, during the whole of the seven or so generations after they initially came into contact.

The Qing Empire and its successor states from 1790 to 1950 were vast, complex and torn by conflict. New Zealand, meanwhile, grew into a small, prosperous, orderly province of Europe. Not until now has anyone told the

story of the links and tensions between the two countries during those years so broadly and so thoroughly.

This book is a highly readable portrait of the lives, thoughts and feelings of Chinese who came to New Zealand and New Zealanders who went to China, along with a scholarly, but stimulating, discussion of race relations, government, diplomacy, war, literature and the arts.

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

Books by Otago alumni

Transforming Pentecostalism: The Changing Face of New Zealand Pentecostalism 1920-2010, by Brett Knowles, Emeth Press, Lexington, Kentucky.

The Soil Underfoot: Infinite Possibilities for a Finite Resource, edited by G. Jock Churchman and Edward R. Landa, CRC Press, April 2014.

Albatross, by Carolyn McCurdie, Rosa Mira Books, 2014.

Unfair Fight: Give Your Small Business the Winning Advantage, by Sam Hazledine, Random House, 2014.

The Laws of Spaceflight: A Guidebook for New Space Lawyers, by Jenifer Lamie, American Bar Association, 2012.

The Stars Like Sand: Australian Speculative Poetry, edited by Tim Jones and P.S. Cottier, Brisbane: IP, 2014.

We Rest on Thee: A History of Middleton Grange School, 1989-2014, by Michael Reid, Middleton Grange School, June 2014.

Why Marketing to Women Doesn't Work: Using Market Segmentation to Understand Consumer Needs, by Jenny Darroch, Palgrave Macmillan, 2014.

Rough on Women: Abortion in 19th-Century New Zealand, by Margaret Sparrow, Victoria University Press, July 2014.

Different Stars For Different Times: Memoirs of a Woman Doctor, by Margaret Guthrie, August 2014.

Picaflor: Finding a Home in South America, by Jessica Talbot, June 2014.

Alumni:

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

... Helensburgh House?

Today all 15 of Otago's residential colleges are clustered around campus, but this has not always been the case.

In the face of an accommodation crisis in 1984, the University established an "instant" hall of residence (as they were then known) some five kilometres away, high up in Dunedin's hill suburbs.

In response to a drop in student numbers in the early 1980s, several colleges had reduced their capacity and Aquinas was closed. But, in 1984, the Accommodation Office unexpectedly found itself with 300 extra prospective students – and nowhere for them to live.

The former nurses' home at Wakari Hospital provided a solution, enabling the University to avoid having to turn potential students away.

The home was leased from the Otago Hospital Board and, within weeks, it was a fully functioning hall of residence, named Helensburgh House (after its surrounding suburb). While the rooms were large and the grounds attractive, in her "University of Otago 1869-2019 – writing a history" blog, historian Dr Ali Clarke explains that there were several drawbacks that meant it was never one of the most preferred residential colleges.

There was no kitchen so meals had to be transported from the University Union, but the main problem was the distance from campus. The hilly terrain made it a difficult walk so fees were kept lower to compensate for residents' transport costs.

However, the "Burgers" – as they were known – became a tight-knit group, as evidenced in a comment by one former resident on Clarke's blog:

"... the initial disappointment at not getting into your preferred hall, quickly gave way to 'what a bloody good bunch of people'. The distance from campus, meant we made our own fun – usually in the huge basement area and raging into the early hours of the morning."

Against all predictions, the number of students at Otago increased dramatically over the next decade – the number of full time equivalent students (EFTS) doubling from 7,000 to 14,000 between 1983–93. The University continued to lease Helensburgh House until 1991 when the Hospital Board wanted its facility back to accommodate mental health services that were being shifted from Cherry Farm Hospital to Wakari.

Helensburgh House ceased to exist but, fortunately for the University, the board was able to offer an alternative. Its maternity services had recently been assimilated into Dunedin Hospital, so the former Queen Mary Hospital was converted into a new student residence, Hayward Hall (now Hayward College), opened in 1992.

For more information on Helensburgh House, to view comments or post one of your own, please go to: otago150years.wordpress.com/2013/08/04/the-vanishing-hall-of-residence

With thanks to Dr Ali Clarke: otago150years.wordpress.com



The "Burgers" made their own fun ...

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