

Uni NEWS

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JULY 2020



LARA GREAVES

Māori politics, policy and protest:
taking on the challenge

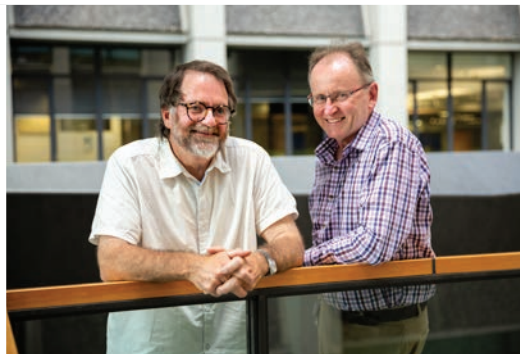
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INNOVATION IN HIS BLOOD

Professor Peter Hunter from the Auckland Bioengineering Institute: a lifetime of excellence in research and creating jobs

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LIFESAVING ENDEAVOURS

Why a doctor of philosophy and a doctor of medicine are teaming up to take on an insidious virus

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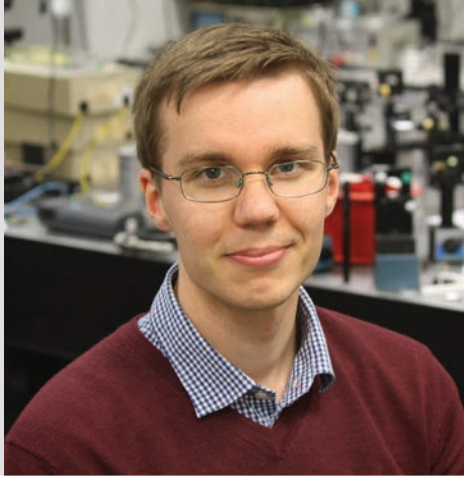
A PLEA TO DO BETTER

Dr Karamia Müller: 'There is not just a diversity issue, there is a diversity state of emergency.'

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EMERGING SCIENTIST PRIZE

Dr Miro Erkiñtalo (physics) has won the Prime Minister's MacDiarmid Emerging Scientist Prize. Miro's work is in non-linear photonics and laser physics. He is working with new laser technologies for the internet, where laser beams are encoded with information and sent through optical fibres, transmitting almost instantly. His research focuses on generating multiple laser beams from a single laser to improve system performance and energy efficiency. He wins \$200,000, \$150,000 of which goes to his ongoing research.



WHAKAAROARO REFLECT

The University is undertaking a survey of academic staff, seeking feedback from teachers and supervisors of research students about their experience running their courses during Covid-19 conditions in Semester One. The survey, Whakaaroaro Reflect, opened on 29 June and closes on 20 July. Feedback will be analysed and fed into the Business Recovery Programme and strategic planning. The survey link is at auckland.ac.nz/covid-teaching-survey. What worked, what didn't? Have your say.



Bill McKay, senior lecturer in the School of Architecture and Planning, taught from his basement in a house shared with seven others.

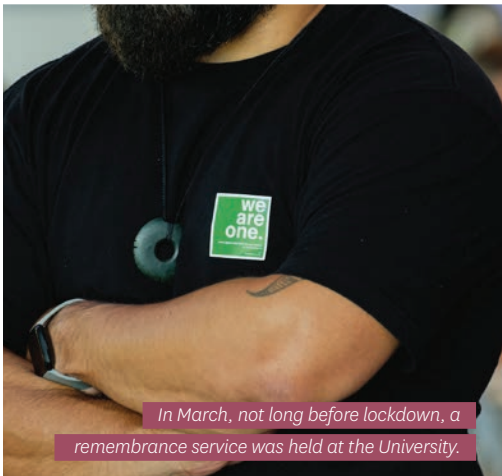
DAME'S PUBLIC LECTURE

Distinguished Professor Jane Harding, who was made a Dame Companion in the Queen's Birthday honours, will give a public lecture at the Liggins Institute on 9 July, 6pm-7.30pm. Dame Jane will talk about her neonatal research that improves outcomes for newborn babies and their families, and the steps along the way that have led to changes in clinical practice. The public lecture will start at 6pm with refreshments at 7pm. Tickets at tinyurl.com/Jane-Harding-lecture



SYMBOL OF PEACE

Anyone back on the City Campus this month will notice a new artwork appear mid-July at the back of Alfred Nathan House (near AskAuckland). Ngā Roimata o Ranginui is a sculptural collaboration between artists Ngahina Hohaia and Anton Forde and will comprise a roimata (teardrop) with carved pounamu raukura (feathers). It's been created as a symbol of peace and remembrance for those lost in the Christchurch massacre of 15 March, 2019. (See next month's UniNews for full story.)



In March, not long before lockdown, a remembrance service was held at the University.

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Dr Lara Greaves: 'Academia is moving towards having an impact.' Photo: Elise Manahan

LARA GREAVES

Dr Lara Greaves is taking on the challenge of Māori politics, policy and protest.

What's your role at the University?

I teach first-year New Zealand Politics and Politics 229, Māori Politics and Public Policy. I really like teaching first-year because there's so much energy in the class and it's a lot of fun, especially in an election year. I recently got the students to do a political meme assignment which doesn't sound that academic but, in fact, the meme is really the modern version of the political cartoon. Those little images and memes are so important to our political culture now. We pull them apart and explore the ideological assumptions behind them.

You've taught in various disciplines. Why?

I started in psychology and then moved into politics at Waikato and then to social sciences and public policy at AUT. But back at Auckland I have the best of several worlds. I'm part of the Public Policy Institute (PPI) so I have numerous threads of research aiming to inform public policy.

What kind of research?

I do a lot on sexuality. That began when I started working on the New Zealand Attitudes and Values Study (NZAVS) in 2011, helping out Professor Chris Sibley. Part of the survey looks at the way people label their sexual orientation over time. It's important research to me, being pansexual takatāpui. I feel like I can have a good impact there.

My PhD at Auckland (psychology) was on Māori political attitudes and behaviour, and that theme is ongoing. I'm interested in voter apathy and why Māori choose to go on either the Māori roll or the general roll. Also important is my research on Māori identity. I'm Ngāpuhi, Ngāti

Kuri, Tararā and Pākehā and I've been looking at issues that affect those of Māori descent or Māori ethnicity and the negative social outcomes even among those who don't list their ethnicity as Māori. That has drawn me to look at Māori health inequities.

I'm also doing a paper about referenda and contributing to a chapter about the cannabis and euthanasia referenda. They're both so important but with Covid-19 they're not getting air time.

That's a lot of threads.

Ha! I'm like Jill or Jack of all trades, but trying to master all of them. To me, it's like having different hobbies. When I really get into something I like being able to switch topics when I need to. So, say it's Māori issues there's a point at which I go 'damn this is heavy'. So I head into Rainbow topics but then I might say 'Oh this is heavy too'. The swing voters stuff is never too heavy, but it might get a bit depressing. Anyway it's all fascinating and at age 30 I'm really just finding my place in all this. One of my mentors, Jade Le Grice in psychology, she's really a tuakana to me, like a big sister in academia. She's encouraging me to find where I fit, especially within Māori research. As someone who didn't grow up in te ao Māori, but is Māori nonetheless, I am just figuring that out. Jennifer Curtin in the PPI has been great. Chris Sibley of course, Associate Professor Terryann Clark from nursing and Professor Janine Hayward, from politics at Otago.

It does seem like academia is moving towards having an impact, rather than just publishing in traditional journals. That was one reason I was happy to change disciplines from psychology to politics, because I really like working with public policy. A lot of the PPI's work is directly applicable to New Zealanders' lives.

What's been your path to academia?

I didn't go to high school. I did Correspondence School because I had chronic fatigue syndrome. I didn't get enough NCEA credits for University

Entrance and finally qualified aged 19. I had a year off to work and then did extramural study – psychology and politics – at Massey for a BA. I wanted to try law so came to Auckland but it wasn't for me, although I do find law really interesting. There are overlaps between public and electoral law and some of what we do in political science. What led me to what I'm doing now was working with the NZAVS – that was the spark.

You won an emerging researcher (Rangahau Hauora Māori stream) grant from the Health Research Council (HRC). What's the project?

It's called 'The Māori in-between: Identity, health and social service access needs'. Tracing whakapapa can be difficult for Māori and many don't know their iwi. We have policies targeted at reconnection to culture for Māori but many are like 'yes I identify as Māori but I can't connect deeply as I don't know my iwi'. So if we are addressing health and social service needs and creating a kaupapa Māori health system run by iwi providers, a segment of the population will fall between mainstream social service providers and iwi-based providers because of this disconnect.

Are you still doing research with the NZAVS?

Yes, for example it's such a good way to study Rainbow groups because it's a big longitudinal survey. So with sexuality, there are plenty of asexuals, for example, in the study and we can do interviews to broaden it further. We also know there are changes in sexuality over time, and I'm working on a paper around that.

Do you feel there's a lot of research and not much action in some areas?

Yeah, Rainbow communities have been saying for a while, 'how many times can we do this research?' But it's still important to monitor things over time.

What do you prefer, psychology or politics?

When I was teaching psychology and told people at social gatherings what I did, they shared their stories of mental health with me. Which was fine. When I tell them I lecture in politics, I get trapped by people telling me everything that's wrong with Jacinda Ardern. I'm like, can't I just eat my barbecue and talk about the weather?

What do you do in your spare time?

I was learning te reo but – and I sympathise with my students here – I found doing classes via Zoom just too hard. Despite being a classic overachiever, I just couldn't do it. So I dropped out but I will get back into that self-guided journey. I have a two-year-old son so in my spare time I pick up tiny teddies from the rug and run around after him in the playground. For relaxation, my go-to is Pilates and I admit to liking really bad reality TV shows.

THE CHALLENGE OF COPYRIGHT

Melanie Johnson is the Copyright Officer for the University but also on the copyright negotiation team for Universities New Zealand. She explains some of the complexities behind ensuring all students had access to the textbooks they needed during lockdown and campus closedowns.

One of the major challenges of transforming the physical university to a virtual one was copyright. The Copyright Act has not kept pace with the way we teach, particularly in the virtual classroom.

The education exceptions are prescriptive and envisage teaching in a physical classroom as it was in 1994 when films were available on VHS and could be cued to the right place to show a short segment in class, and lecture recordings, if they existed at all, were the plaything of computer science. While some tinkering has occurred since then, the underlying premise is the same.

Some publishers' distrust of digital publishing, and the many ways books are made available electronically, is challenging. This is normally managed by buying sufficient print copies to hold in the library for students who may not have the resources to purchase textbooks.

Luckily we had a trial run in February with the students on a Study Plan in China. Universities in the southern hemisphere were about to start the academic year with a cohort of international students unable to get into the country so what we faced was unique.

Those students were unable to buy textbooks or access the library collections of physical books, so all teaching and access to content had to be online. I was part of a group charged with finding a way around this for all universities, to ensure students overseas weren't disadvantaged.

We approached Copyright Licensing Ltd (CLL) who granted us the right to copy up to 50 percent of a book, to be made available only to those overseas students on a Study Plan in Semester One. This was a big leap from the 10 percent normally allowed under the licence and not an easy decision for CLL to take. At the University we use Talis which means all use of licensed works is reported to CLL, who then pay the publishers. Keeping a record of our use of published works, and the regular payments to rights' owners, means publishers' distrust of universities is slowly softening.

When the decision was made to move to online teaching for domestic students as well, we again approached CLL hoping to extend the licence to copy 50 percent for the duration of the emergency and online teaching. It was a few weeks into the term and students who were going to buy the textbook would in all likelihood have done so. CLL agreed to allow us to digitise 50 percent of

textbooks and at the same time approached publishers for the right to copy up to 100 percent. While most publishers agreed, those who had books available in an electronic format expected students to buy these. This meant permission to copy 100 percent needed to be obtained from the publishers on an individual basis.

Then there were the OneMusic and Screenrights licences, broadly worded to allow whole works to be copied and shared in a virtual classroom. This is largely because using this content for teaching doesn't compete with the market for these works in the way that copying textbooks does.

What was difficult was commercial DVDs. This is where the prescriptive nature of the Copyright Act and the lack of exceptions meant there was no legal way we could copy DVDs and share them with students, either through lecture recording or by allowing them to be borrowed virtually. Unlike US universities, we cannot rely on 'fair use' to make these available. Generally speaking, so long as the use is educational, transformative and doesn't impinge on the rights owner's ability to sell or license the work, fair use is a defence to any copyright claim. Critical analysis of films for teaching purposes doesn't compete with the original use of the work to entertain.

Many staff use YouTube or documentaries that have been broadcast and so are covered by the Screenrights licence. If a film has been broadcast and the library or eTV uoa.etv.org.nz/tv/ have recorded and added the work to our TV and radio database, it will be available to share with our students for educational purposes.

Not so textbooks, for which there is an established market and making 50 or 100 percent of a textbook available to students could make a serious dent in the market for those books. Already bookshops are in a difficult position with piles of Semester One textbooks now unsold.

The reason Copyright Licensing was open to extending the licence is because our universities have made e-reporting mandatory for all staff through Talis. There's a concerted push to ensure staff copying content do so under the licence request digitisation through Talis, meaning publishers receive payment in recompense for the use of their works.

Negotiations for Semester Two are ongoing. If our universities continue to teach their overseas students online, there's an added push for teaching resources to be available electronically. At this point, academic staff are again limited to 10 percent, or one chapter, and may be asked to look for alternative texts available electronically. Copying under the extended licence of 50 percent of textbooks is not sustainable in the long term. It's an evolving situation but one that has shown the need for revamping the system for the modern age.

Enquiries about copyright can be made to: copyright@auckland.ac.nz

PETER HUNTER'S MEDTECH MIND

The Auckland Bioengineering Institute (ABI) is known globally for its excellence. Its director has a plan to grow it further.

When Distinguished Professor Peter Hunter was a boy, he and one of his brothers, Ian, had electronic labs in their bedrooms. Peter ran a repair service from there, fixing valve radios for people in the neighbourhood.

In an interview with *Ingenio* in 2017, the brothers said their father, Les, was an electrical engineer and an inventor who, in 1950, constructed New Zealand's first experimental closed-circuit television station in his backyard, ten years before TV was introduced here. Ian is now a distinguished alumnus of the University and Professor of Mechanical Engineering at the Massachusetts Institute of Technology (MIT). Peter is the Auckland Bioengineering Institute's founder and director, helping nurture the ideas of ABI students in much the same way his father did with his sons.

The ABI figured prominently in the recent University Research Awards and among those recognised was Peter. He was awarded one of the Vice-Chancellor's Commercialisation Medals, which recognise the work of researchers who have made a significant impact on the economy and society. He was quick to share the honour.

"It's really an acknowledgement of ABI's role in creating an environment where fundamental research and graduate training in the MedTech area is linked to innovative companies and high-tech employment opportunities. Research-led universities are at the heart of innovation. We are trying to show one way in which this can be done."

Colleague Professor Thor Besier also won one of the three Commercialisation Medals, and Associate Professor Suranga Nanayakkara one of three Research Excellence Medals for individual researchers.

Peter set up the ABI in 1980 while collaborating with physiologist Professor Bruce Smail on cardiac research, work that continues to this day. The University of Auckland is the only university in New Zealand that has both a medical school and an engineering school, which is what led to the creation of the ABI. Many PhD students who came through the ABI in the 1980s and 90s have since become its principal investigators or have established companies employing ABI graduates. These include Associate Professor Ian LeGrice, Professors Iain Anderson, Poul Nielsen and Martyn Nash, Dr Greg Sands and Dr Chris Bradley. Professor Nic Smith, recent Dean of Engineering, is another ABI graduate.

The first woman to gain a doctorate through the ABI (Engineering Science) was Professor Merryn Tawhai, in 2001. She's now the director of the Medical Technologies Centre of Research Excellence aka the MedTech CoRE.

Peter notes there has been a lack of women in the ABI, but that's improving. "It's largely changed because of Merryn Tawhai. We now have the likes of Dr Alys Clark and Dr Kelly Burrowes. Worldwide, engineering courses traditionally attract about 20 percent women undergraduates but bioengineering courses attract a 50/50 split. We're still trying to redress the balance but we're a lot better now than 15 years ago."

Peter says the advantage of being a large-scale research institute is being able to bring together people from multiple faculties – Medical and Health Sciences, Engineering, Business and Science among them. "So you can make appointments from many different areas. It's also good to have a critical mass for doing research. We're big enough to make some strategic decisions on direction that you couldn't if you're a smaller group within a faculty."

The ABI has around 250 people including 100 grad students. With the help of UniServices, the commercialisation arm of the University, it has established an innovation environment that's spun out about 25 companies in the past ten years, providing jobs for graduates.

"You can't justify having large numbers of grad students if you're not also creating jobs," says Peter. "They want fulfilling, well-paid high-tech jobs so a lot of the companies we're creating are employing them. Innovation and creating jobs are part of our whole graduate training programme."

In the past five years, the ABI has produced companies with a market capitalisation of almost \$200m and created more than 150 new jobs. Companies including Soul Machines (Associate Professor Mark Sagar), the Insides Company (Associate Professor Greg O'Grady), Formus Labs (including Dr Ju Zhang, Professor Thor Besier, Associate Professor Justin Fernandez), StretchSense (Professor Iain Anderson) and PowerOn (including Professor Iain Anderson, Dr Samuel Rosset).

The ABI also set up Cloud 9 on the ninth floor of ABI House, an incubator space run by Dr Di Siew where early-stage companies are encouraged to develop a "how many jobs can I create" mindset.

Peter says there's no perfect number for the overall size of the ABI, although the premises they're in play some part. "When we were ten people, we thought that was the ideal size. When we were 50, that was the ideal. Now we're 250 and it's hard to know. We're in a leased building that's not ideal but we make it work. Clearly, a longer-term solution would be to have a building more suited to what we do."

Peter's vision is to establish a MedTech precinct



Professor Peter Hunter says research-led universities are at the heart of innovation. Photo: Elise Manahan

"You can't justify having large numbers of grad students if you're not also creating jobs."

– Professor Peter Hunter, director, Auckland Bioengineering Institute

in the Grafton area. "It would be an environment that maintains links to the research at the University, along with the commercial expertise from UniServices, the Business School and Law School, and the clinical environment of the ADHB."

The ABI is one of the best-known computational physiology groups in the world, creating computational models of the body that incorporate principles of maths, physics and engineering. Peter's main field of interest has been the Physiome Project, an international consortium involving dozens of research institutions around the world. The collective aim of the project is to build computational models that integrate mathematical and physiological information about organs, tissues, cells, proteins and genes, ultimately to guide interventions and treatments in human health. "There's this idea of being able to use engineering to create a quantitative framework for understanding human biology, from the molecular, cellular and tissue level right up to anatomy and whole organs, such as the heart.

"All the other areas of science base their theoretical frameworks on well-known laws of physics and use mathematics to help create those frameworks. Within the context of physics and biology, medicine hasn't done that. So a lot of what we're trying to do in the Physiome Project is to bring in physics to create the right theoretical framework for assembling biological information."

About 35 students are accepted into first-year bioengineering each year, which is run through Engineering Science and it's tough to get in to.

"It's a very sought-after course, so they're very, very good students."

In 2020, 70 percent of about 100 graduate students at the ABI were internationals, from 36 countries. The highest number of those came from

Iran (23), China (13), Sri Lanka (10) and India (9).

"About seven years ago, I went to a number of universities in Iran with Associate Professor Caroline Daley, Dean of Graduate Studies. Iran has a cultural tradition of strong higher education, so I think that's how that's come about."

There aren't many students from South America and Peter was about to address that. "We were due to fly out the day before the Government announced border closures. In retrospect, it was just as well. We were going to Brazil, Argentina, Chile, Colombia and Mexico."

While international students are an important part of the programme, bringing in not just fees but diverse skills and thinking, philanthropy is now helping too. "Philanthropy has been a recent significant source of income, just in the past few years. People can see the impact our researchers are having on society."

Peter is excited about a project the ABI is working on after receiving a major grant from the National Institutes of Health (NIH) in the US. It involves creating a mathematical framework for the body's autonomic nervous system.

"That has reached a point now where it's beginning to take off and we could be on quite a big growth path. The autonomic system is one you don't have voluntary control over and it's vitally important. If it goes wrong, there's an imbalance between the two major parts of that system – the sympathetic and parasympathetic. Many chronic diseases are associated with that imbalance, so understanding it is critical and could have a big impact. There's an opportunity to develop new types of implantable instrumentation associated with neuromodulation of the autonomic system.

"There's always something new and exciting."

■ Denise Montgomery

GOOD TO KNOW

MOVING UP THE **TOP 100**

The University of Auckland has climbed to its highest spot in five years in the QS World University Rankings.

In June the Quacquarelli Symonds (QS) rankings cemented Auckland's place as the highest-ranked university in New Zealand.

The University rose to 81st in the world for the 2021 ranking, up two places on last year and up 13 places since 2013.

The improvement contrasts with five out of seven other universities in New Zealand. The two that improved their ranking were Massey, which rose to 272nd and AUT which rose to 437th. Otago is the second-ranked university in the country, coming in at 184th.

New Vice-Chancellor Professor Dawn Freshwater said she was delighted to see the world-class work of academics and staff recognised.

“These rankings recognise outstanding performance and judge us against our international peers, and ensure we are highly relevant to our global communities and stakeholders.”

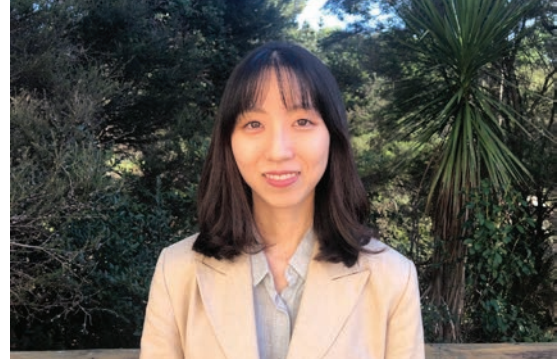
The University's highest-ranked component of the QS rating was 56th for Employer Reputation. It also received five stars-plus in the QS Stars University Rating for excellence in the categories of Research, Employability, Teaching, Facilities, Internationalisation, Innovation and Inclusiveness.

The ranking comes at a challenging time for all universities in New Zealand with international students unable to enter the country, although programmes were delivered online in Semester One.

Despite uncertainty surrounding international student numbers, work on the new Strategic Plan is under way now.

“Educational excellence, employability and equity are critical components of our strategic landscape,” says the Vice-Chancellor.

She has prepared an initial paper as part of her preparations for the draft Strategic Plan, due to be launched in April 2021. Staff can read more about it on the intranet on the page ‘How the University Works’.



ANTI-VAX **GROWTH**

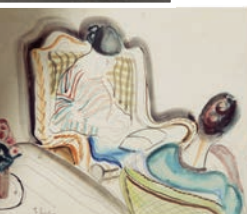
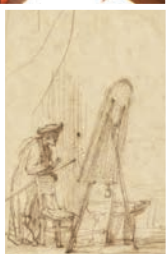
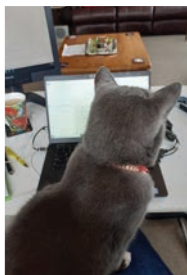
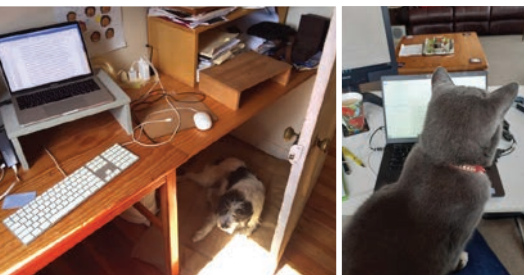
Anti-vaccination attitudes in New Zealand are becoming more entrenched.

In the first longitudinal survey to track New Zealanders' attitudes to vaccinations over time, 60 percent did express high confidence in their safety. But the research, from the New Zealand Attitudes and Values Study (NZAVS), found around one-third of people becoming more sceptical, says researcher and PhD candidate Carol Lee.

“The data did show a quite high number – 30 percent – of people who are less supportive of vaccination now than they were five years ago and the danger is that trend will continue, which poses a challenge in terms of public health messaging,” she says.

The research is published in *EClinicalMedicine*.

■ Read the full story: auckland.ac.nz/NZAVS-vaccination-survey



CALL FOR CONTRIBUTIONS TO CAPTURE A MOMENT IN TIME

Song lyrics, posters, poems and video of online fitness classes are among the items submitted so far to the University of Auckland Covid-19 archive collection.

Special Collections Team Leader Dr Nigel Bond says there has been a good response since the call for contributions to the collection went out in early June, but they are still keen for more material.

“Capturing a snapshot of the experiences of the University whānau during Covid-19 lockdown will help researchers understand how we adapted during this extraordinary time, what we did and how we felt about it,” says Nigel. “It will also be a really important addition to the extensive archives dating back to the 1880s in Special Collections that reflect the social history of the University, staff, students, organisations and clubs.”

The University's rapid move to virtual delivery meant that staff and students needed to respond quickly and innovatively to working and socialising in the new environment. As the University's official response will be captured through existing channels, the Covid-19 collection aims to capture more personal and ephemeral responses from staff, students and student groups, either in digital or physical form, including memes, letters, diaries, blogs and photos.

“Researchers will want insights into such things as what it was like for students being locked-down in shared houses, taking classes online, and how they kept up with friends and family; how lecturers taught from their dining tables and how some staff provided essential services from a mostly closed campus. So, it would be great if people contacted us before things are put into drawers, deleted from media accounts, or thrown in the rubbish. We may not be able to accept everything and in some cases sending photos of physical items like artworks might be preferable.”

The Special Collections archivists are also managing the challenges posed by this contemporary collecting – gathering material during or soon after an event. “There are ethical and privacy issues that such collecting presents and we are developing ways to protect the confidentiality of donors, as required.”

Despite this, Nigel says it is the responsibility of a collecting institution to engage in the activity and discourse of contemporary collecting. He hopes staff and students will consider adding to this growing collection for the benefit of future researchers and teachers.

To contribute or find out more, email: specialcollections@auckland.ac.nz

STRESS LINK TO EATING DISORDERS

Anorexia and other eating disorders may be linked to a nervous system experiencing inflammation caused by stress, according to an international review co-authored by Dr Severi Luoto.

Published in *Frontiers in Psychology*, the collaborative review with universities Turku (Finland), Daugavpils (Latvia) and Tartu (Estonia) concludes that the variation in eating disorders between people may arise from individual differences in gut microbiota, as well as their degree of response to stress, which in turn affects inflammation in the nervous system and the regulation of the mood chemical serotonin.

Serotonin regulation originates in two mid-brain areas (the dorsal raphe and the median raphe) that control neurotransmitters associated with a range of cognitive disorders such as depression, bipolar disorder and schizophrenia.

The review of research by Severi (Faculty of Arts) and colleagues across a range of disciplines has resulted in the team suggesting a new evolutionary neurobiological model to

understand eating disorders. "The new model predicts that when there are changes in gut microbiota, stress levels and responsiveness to stress, a patient's symptoms and eating disorder diagnosis will change," says Severi.

"Similarly, the evidence we've reviewed suggests that the difference between whether people are more likely to suffer bulimia nervosa or anorexia nervosa arises from the degree of neuroinflammation caused by chronic stress, with anorexia patients suffering stronger neuroinflammation than bulimia patients.

"Weight loss obsession is mediated by pervasive thoughts about food, body weight, diet, physical exercise and appearance, as well as obsessive-compulsive disorder-like behaviour which tries to solve these issues," he says.

The authors reviewed findings from hundreds of scientific articles and several books spanning multiple decades, with the earliest piece dating from 1950. Based on the review, they suggest the stronger the neuroinflammation in anorexia patients, the stronger is their obsession to lose weight and their fear of gaining weight, and the more persistent and extreme are their obsessive behaviours.

■ Full story: auckland.ac.nz/anorexia-bulimia-stress-link



FITNESS TESTS

Many fitness programmes and other well-being initiatives came to a full stop during lockdown but as things get back to normal, researchers are keen to find out whether people are doing more or less exercise during the pandemic.

Researchers at the University of Auckland, Australia's La Trobe University and the University of Notre Dame Australia have launched an online survey that will also explore sleeping habits and general well-being during the height of Covid-19, as well as during the period in which it's hoped it will have abated.

Physical inactivity is the fourth leading risk factor for chronic disease.

"Only about half of all New Zealand adults meet the minimum physical activity recommendations for good health but Covid-19 interrupted many areas of our lifestyles and none more so than our working lives," says Dr Rebecca Meiring from the Department of Exercise Sciences, who is leading the New Zealand part of the study.

"Work-related well-being programmes can be a key part of people's efforts to exercise more so we want to study the link between physical activity and productivity in the workplace both before and after Covid-19."

The survey will chart exercise patterns in Australia and New Zealand now and in six months, to hopefully coincide with eased Covid-19 restrictions in both countries and a return to normal working patterns.

Chronic disease linked to lack of physical fitness increases the risk of occupational absenteeism, or poor health resulting in sick leave. It also increases presenteeism, where a person is unable to work at full capacity because of illness or stress but continues to go to work. Physical inactivity has been shown to be directly related to absenteeism and presenteeism.

It's hoped the research will help organisations design, deliver and measure the effectiveness of well-being programmes for their employees.

■ Full story and link to the survey can be found at: auckland.ac.nz/covid-fitness-survey

MUTCH INTEREST

Schools play a significant role in disaster response and recovery, according to a six-year research project by Professor Carol Mutch from the Faculty of Education and Social Work.

Carol, who recently received a 2020 University Research Excellence Medal, carried out her study in five Canterbury schools throughout the Christchurch earthquakes between 2012 and 2018. Her research shows that rather than being peripheral players, schools functioned as community hubs, with principals as crisis managers, teachers as first responders and children as active citizens.

"I saw that schools had huge expectations placed on their shoulders in terms of supporting not only their students but their students' families and the wider community," she says. "In spite of what was going on in their own lives, they fronted up day after day with quiet determination.

"No one had ever thought to document their efforts or bring them to wider attention."

Her research has since been widened to include disaster-affected schools across Asia-Pacific, including post-tsunami Japan, post-earthquake Nepal and post-cyclone Vanuatu. More recently it focused on offering useful tools



to teachers in Australia in the aftermath of the catastrophic bushfires.

The Canterbury project has attracted international interest and resulted in peer-reviewed publications in top journals, speaking invitations and fellowships. It sits in a cross-disciplinary position between disaster studies and education and is informed by fields as diverse as leadership and trauma studies and community development. Carol's research has also informed policy and practice in the area of education and disaster recovery, with her ideas being taken up by teacher organisations, principal training providers and departments of education, both in New Zealand and overseas.

A SLEEPING VIRUS PEOPLE MAY NOT KNOW THEY HAVE

Ahead of World Hepatitis Day this month, Professor Tim Dare talks about the gratitude he feels to Professor Ed Gane, and why they're teaming up.

In the past few months we've seen how effective a campaign can be to almost eliminate a virus from a country.

But there's another virus that's been silently affecting the health of around 50,000 New Zealanders and 50 percent of them don't even know it. Not only that, but there's a simple and effective cure.

Professor Tim Dare is keen to talk about that virus – Hepatitis C. He's not a medical doctor, but a former lawyer and ethicist who teaches philosophy at the University. He had Hepatitis C (Hep C) but is now cured thanks to Adjunct Professor in Medicine Ed Gane.

For many years, Ed supervised drug trials on Kiwi volunteers with chronic Hepatitis C. He trialled various combinations of different antivirals from North American biotech companies until he finally got the results he was looking for – a tablet that could cure more than 95 percent of patients without side effects after only 12 weeks. The successful combination was picked up and developed by global drug companies and is now mainstream. Last year almost 5 million people were cured with this treatment, most of whom were in low-income countries and treated with WHO-approved generic versions.

Hepatitis C is a blood-borne disease that causes inflammation of the liver. Left untreated,

up to 25 percent of infected people will develop cirrhosis which can then progress to liver cancer or liver failure.

"Everyone with Hepatitis C will eventually develop scarring of the liver and a good proportion will develop cirrhosis, which is severe scarring," says Ed, chief hepatologist and deputy director of the NZ Liver Transplant Unit, which he set up in 1998 at Auckland City Hospital.

"The biggest incidence of Hep C infection was in the 70s and 80s when recreational drug use was popular so there's a large group of people now entering their 50s and 60s," he says. "That means we're starting to see people requiring liver transplants or who have been diagnosed with liver cancer from Hep C. But that is an issue we can prevent."

Tim is one of the people who has benefited from Ed's expertise.

"I suspect, like lots of people, I probably had Hep C for 20 years before I knew," says Tim. "It's an insidious sort of disease. It's nagging away at your liver all the time you've got it."

A blood test confirmed it before the damage could have led to a liver transplant.

Doctor Ed and patient Tim, in his capacity as ethics adviser, are among those now working with the Government on a National Hep C Action Plan. The treatment, a direct-acting antiviral drug called Maviret, is already funded by Pharmac and is a tablet taken every day for eight weeks. It is well tolerated, unlike toxic treatments of days gone by such as Interferon that may have put people off being treated. The action plan is to make people aware of Hepatitis C, get tested and then have their GPs treat them with Maviret.

Soon after Maviret became available, more than 500 people a month were starting treatment, most through their GP. But numbers have declined dramatically because of the low uptake of testing.

Hepatitis C was only identified in 1989 and can be transmitted through blood transfusions, tattoos or recreational drug use. Both Tim and Ed want the action plan to take a 'no-questions-asked' approach with patients, because of the stigma involved with past recreational drug use.

In 2016, the New Zealand Government was one of the 194 countries who signed a commitment to the WHO to eliminate viral Hepatitis C as a public health threat by 2030.

Ed thinks New Zealand can do it sooner if we set up a testing programme to diagnose those infected and a registry that ensures that once people are diagnosed, they are linked to treatment, which can be through their GP or other community providers.

"I think we could do it by 2025," he says. "The benefit of this is it is a one-treatment drug and the registry wouldn't need to be a lifetime registry, just five or ten years and then the problem would be solved."

A major problem is the lack of awareness and a degree of discrimination against people with Hepatitis C. "We need to remove the barriers to testing ... which is both that lack of awareness and stigmatisation," says Tim. "Many people feel uncomfortable telling colleagues they have Hepatitis C, or having it become known. What we need to convey is 'this happens to people. To good people. It's not something people should feel ashamed about'."

Ed says there are big cost benefits from an eight-week course of tablets compared to a liver transplant, shown in data from overseas.

"Countries like Germany and France have seen a 50 percent reduction in the need for liver transplants caused by Hepatitis C, within five years. Here in New Zealand, this could have an enormous impact, not only in reducing the demand for treatment for Hepatitis C, but because it will increase the number of livers available for everyone else needing a transplant for other reasons."

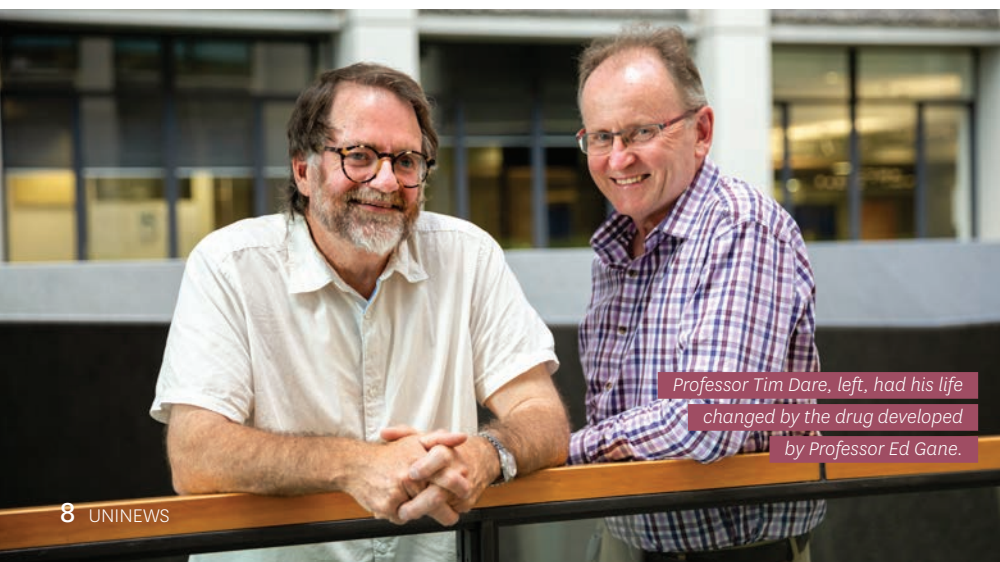
He says people who have Hepatitis C and don't know it may have a host of symptoms they haven't connected to the virus.

"When you have Hepatitis C in your blood, you're making lots of inflammatory proteins we call cytokines, which are fighting the Hepatitis C. It's a bit like having an active cold or influenza. As soon as that infection stops, those cytokines disappear, and people instantly feel better.


"They can feel better in a whole variety of ways – more energy, better mood, reduction in myalgias and sore joints and, most importantly, it prevents them getting a life-threatening complication in the future."

Ed is advocating a national testing programme for every adult. Past programmes, in the US for example, only tested the 'Woodstock era' but this

"Hepatitis C happens to people. To good people. It's not something to feel ashamed about." – Professor Tim Dare, School of Philosophy



Professor Tim Dare, left, had his life changed by the drug developed by Professor Ed Gane.



“This is the first infectious disease, where you’ve gone from discovery to cure within a quarter of a century.”

– Professor Ed Gane, adjunct professor, School of Medicine

Professor Tim Dare, left, and Professor Ed Gane:
on a mission to make people aware of
the need to test for Hepatitis C.

failed to identify most patients. “In May, the US Centre for Disease Control decided to introduce universal testing for all adults in the US,” says Ed. “This approach has already been enormously successful in France.”

He says a pin-prick test can just happen in a pharmacy. There was a recent pilot trial run by Dr Natalie Gauld, who has honorary appointments in the Department of Paediatrics and the School of Pharmacy, for the Waitemata DHB. The pilot saw ten west and north Auckland pharmacies raising awareness of Hepatitis C and screening people for it, then providing follow-ups and GP referrals for anyone testing positive.

Natalie says the pilot scheme went well, and the results should be published shortly.

“Studies show that testing in a pharmacy identifies people with Hepatitis C who have not yet been diagnosed and they’re subsequently treated, which is an excellent outcome.

“What’s good about doing it this way, is that people don’t need an appointment, it’s relatively anonymous and also free which reduces barriers. I’d like to see it rolled out further with even more involvement from pharmacists.”

Ed says the development of molecular virology as a discipline has led to huge advances in our approach to the diagnosis and management of infectious diseases. “Once you understand the virus and its lifecycle, then you can identify targets with small molecules to block that target ... it’s extraordinarily accelerated today compared to what it was even ten years ago.”

It’s that kind of virology work that will be going on right now behind the scenes around the world to target Covid-19.

Other viruses in the Hepatitis family, A and E for example, are still fairly prevalent but do not result in chronic infection. Hepatitis B is a persistent virus that causes chronic infection but there’s a

vaccine for it. “There’s Hepatitis A to E actually, but A and E are very similar,” explains Ed.

“You get them from contaminated water and foodstuffs. There are certain countries where they’re endemic, especially the Indian subcontinent and parts of Asia, occasionally southern China. It stems from a lack of clean water and poor hygiene. So, you get outbreaks and people get sick and then they get better. They don’t get cirrhosis because the virus has come and gone within a few weeks.”

It’s the C version Ed is focusing on, with the cure so effective he calls it ‘the end of the line for Hepatitis C treatment’. “This is the first infectious disease, where you’ve gone from discovery to cure within a quarter of a century.”

There are about 1,000 new cases in Aotearoa each year and it’s spread through blood-to-blood contact.

Ed says it doesn’t matter how much damage has already been done to the liver, everyone should be treated. “Many countries, because of the cost, say you’re only allowed to treat people with cirrhosis. But by treating people with early disease, you prevent them from developing cirrhosis which then completely removes the risk of getting complications and the need for a transplant,” he says. “Now we would treat everyone, even the sickest people who are referred for a liver transplant. If you eradicate the virus, the liver can get better.”

A Green Paper presented to the Minister of Health in October 2018 emphasised the importance of developing a national plan for viral hepatitis with national targets. Australia is now up to its fifth plan, including a goal to eliminate the negative impact of stigma and discrimination on people’s health.

In New Zealand, some populations are affected more than others by disability and ill health,

particularly Māori, and those living in areas of high socioeconomic deprivation. The paper said resources are needed to ensure those groups are assisted to achieve the WHO 2030 goal, with dedicated campaigns. World Hepatitis Day is on 28 July and the theme is Find the Missing Millions. That’s a reference to the millions of people around the world who are living with some form of Hepatitis but don’t know it.

Tim says despite the Ministry of Health’s focus on Covid-19 in recent months, a screening programme for Hepatitis C is both life-saving and cost-saving and shouldn’t be forgotten.

“The screening programme and the registry are likely to be expensive, and the registry is potentially intrusive so we need to work out the ethics around that,” says Tim. “Yes, there are other pressures on the Minister but we’re making the case that this is a worthwhile place to put in effort and resources.

“People like me, whose liver showed scarring and were on the road to a serious situation, now have scans to show the scarring has completely melted away.”

“In the first year since Pharmac started funding this drug, we’ve treated 3,500 people,” says Ed. “GPs have treated all the people they know about and the hospital treated all the people they know about. But we need to find the rest of them – we know they’re out there.”

■ Denise Montgomery

TAKE THE TEST

If you think you could have Hepatitis C, or any type, call the Hepatitis Foundation 0800 33 20 10 or email hepteam@hfnz.nz Or ask your doctor for a blood test.

UNLOCKING POETRY

We all know that lockdown improved creativity for many people – being away from the madding crowd, in a much quieter world, seems to have been the spark.

But even Dr Nina Nola, co-ordinator of English for the Tertiary Foundation Certificate (TFC), was blown away by the submissions for a poetry competition she devised, called ‘Lockdown Breakout’.

The year-long TFC programme aims to allow students to gain university entrance or upskill in sciences. “As part of a unit on poetic text, students in the TFC course participated in a competition, drawing on their Covid-19 lockdown experiences,” says Nina. “The results were

astounding. We received 27 poems which really moved not just the tutors but also the judges.

“This competition was a chance for students to engage with course material in a personally meaningful – and sometimes cathartic – way,” says Nina. “The quality of entries was so high that the judges awarded three first prizes and two equal runners-up. The poems are dynamite.”

The judges were Dr Tru Paraha, Māori post-doctoral fellow in English and drama and poet Professor Michele Leggott. Michele says the top three are all very different. “*Cravings* by Indiarose Thomas, for example, dug deeply into the intimate territory of mammals shut up together in confined spaces, getting closer and closer to an earth mother, whose presence might be a comfort.”

Indiarose says: “I love referring to the animalistic

side of humans and how tightly intertwined we are with nature. I think the closer we are to nature and the planet, the more we fulfil our purpose and destiny as human beings on Earth. I also think we create the most beautiful things when we are at our most damaged or emotionally vulnerable.”

Another winner, Sia Siafa, says she wasn’t even sure she was capable of poetry before she started.

“Poetry is so abstract and subjective, you wonder, what is good and bad poetry? Is there even a pass/fail metric in poetry?”

She says she wanted her poem to be read three ways. “First, like a newspaper; second like a Twitter feed on your phone, with the random shift in tone as you read through; and lastly like a script, the stage direction being the last line of a narration.”

THE TOP THREE

CRAVINGS

Take me into your arms.

Squeeze me, my bark curls and scratches, muscles growl.

Arch in my back.

A smooth valley, concave.

Water trickles, glistening nectar.

It feeds the streams, the lust, warmth.

Hand on my chest, fragile ribs, a warm beating mess.

It thumps, moans, groans, it longs.

Grab my hair, roots of grass, rip it.

They run deep. They always grow back.

The closest thing to our mother,

is dirt between our fingernails and a hole closer to the core.

Open me up,

I want to be buried inside.

Let the Earth swallow my soul,

in the gentle embrace only a mother knows.

■ **Indiarose Thomas**

LIVING WITH – OUT

I am a lizard stretching out

Sighing with relief upon my third rock from the sun

My blood has been cold

S t a g n a n t

B e g i n n i n g

C u r d l e

For so, so, so, so, so, so, so –

Too long

Did I mention that I’m stretched out?

R e a c h i n g

For the things that I want to hold close

Letting Bones –

B o d y –

B e i n g –

Breathe back to life

After the aches and pains of staying inside

Being set free

There’s only my satisfaction left to find

Sighing with relief upon my third rock from the sun

I can finally reach the people that I have been trying to live

With – Out

■ **Xara Pickering**

SERIOUSLY, WHERE IS SHE THO?

All this time,

You lost some weight, You glowed up, You baked some bread – WITH WHAT FLOUR?

Is there a cure yet? All that money,

You get help, You get help, You get 5 bucks, you’re welcome

Zoom, Zoom, Zoom

You get restructured – it’s what the PR team told me to say

I pay taxes and am struggling, Aw that’s cute

Is there a cure yet? All that science,

You still need your roots done, You don’t know how to apply nail polish

Buy a ring light

“Tik tok when I dance, on that demon time she might start an OnlyFans” AYYYY!

I am a free, I am not man, A number

Yes, that is racist... YOU

KNOW WHY

Bleach is for cleaning up murder scenes, but sis, did you really need 40 volume?

Seriously, you went to science school, where is that cure?

Drive thru, but for parking

Level 2, was at level 3 Stay home, but down the road

You have ears, for decoration

People died, but it wasn’t that, MSM will have you thinking

Transparency documents requested, were not transparent enou... “Shut up, Tova”

Sorry, how many people died?

Is there a cure? Is there, one?

What’s her address? I

just wanna talk...

Ok, well I think I’ll charge my phone now

■ **Sia Siafa**



Indiarose Thomas

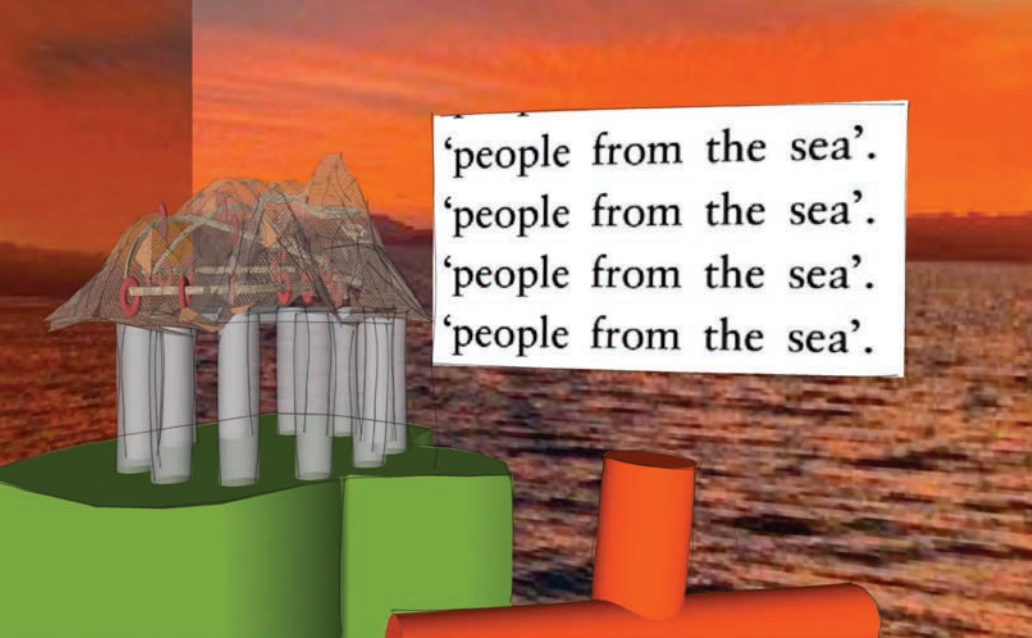


Xara Pickering



Sia Siafa

■ An extended article including the two runner-up poems, by Michelle Lim and Angus Cameron, will appear on the University of Auckland website.



'people from the sea'.
'people from the sea'.
'people from the sea'.
'people from the sea'.

Screenshot from Kato'one Koloamatangi's video 'design an ancestry playground'. Below: Oriana Plunkett's 'design a dystopian nightmare'.

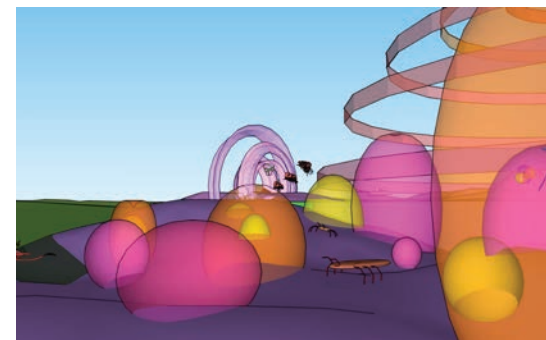
Crowley, who co-wrote the brief, Ngahuia Harrison, a doctoral candidate at Elam who provided support in terms of mātauranga Māori and Te Tiriti in Studio One, and Elam technicians Robyn Walton and Franca Bertani from the metal and casting workshops who learnt SketchUp during lockdown so they could provide tutorials and extra support for the students.

Unsurprisingly, teaching online involved much Zooming, which also opened up opportunities for appearances by visitors from out of town. That included Yona Lee, an Elam graduate who is establishing an impressive national and international reputation as a leading contemporary artist, and who uses SketchUp as a tool to develop her ideas and to present proposals to curators and directors.

"So she was perfect for the *Making Worlds* SketchUp project," says Peter.

He says he was also happy to have Grant Major on a Zoom. Grant's achievements include an Oscar for *Lord of the Rings: Return of the King*. "Grant was an inspirational and generous speaker who gave the students the sense that what they were doing was real, valid and worthwhile."

■ Margo White



CREATING A NEW WORLD ONLINE

As one of the country's most renowned artists, Peter Robinson has often headed off into unexpected directions, which perhaps helped equip the associate professor at Elam School of Fine Arts for teaching art students in lockdown.

Art would normally be taught in a studio, and teaching it online presented particular challenges: art shops and hardware stores were closed, art is often a messy business so not possible in many students' home environment, and painting, printing and sculpting is not easily taught online.

Peter turned to SketchUp, 3D-modelling software used for drawing applications in architecture, interior design, landscape architecture, civil and mechanical engineering and the likes, and used it as a platform for a Studio One project called *Making Worlds*.

The software allowed him to teach in a way that hadn't been tried in the Elam studio before. He'd

long thought of SketchUp as something that would be ideal for students. "I love how intuitive it is as a programme and how it serves as a pathway to learning much more sophisticated, powerful and sometimes intimidating 3D drawing programmes.

"It's a fantastic tool for students to learn to draw complex forms very quickly which they couldn't achieve with pencil and paper, so their thinking is accelerated," he says.

The project brief, *Making Worlds*, invited students to create a world with, for example, a machine for living; an ancestral heritage playground; a sculpture garden or theme park, expressing and promoting identity and diversity.

"It was quite astounding to see how quickly the students picked up the software," says Peter. "I've been using it for at least eight years and many of them exceeded my understanding of and ability with the programme. The sophistication of their ideas was also impressive. It's satisfying to know the students have a transferable, practical skill they can use in a myriad professional settings."

Peter says many colleagues supported the project including Elam senior lecturer Lisa

BOOKS



Gearing Up: Leading Your Kiwi Business Into the Future

Business School staff and retired colleague Professor David Irving (co-founder of The Icehouse) have written *Gearing Up* (out 9 July) a practical book to

help owner-operator New Zealand businesses facing an uncertain future. Christine Woods and Deborah Shepherd founded the owner-manager programme at The Icehouse 20 years ago.

Darl Kolb, David Irving, Deborah Shepherd and Christine Woods, AUP, RRP \$29.99



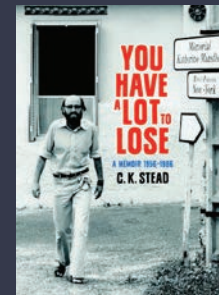
Colin Maiden: An Energetic Life Revisited

Sir Colin Maiden was Vice-Chancellor of the University, from 1971 to 1994. He first published his autobiography *An Energetic Life* in 2008. But plainly the

87-year-old is so energetic there's more to add. The book was originally written for Sir Colin's family and friends but acts as a broader historical record of the author's lifetime.

Sir Colin Maiden, Opuzen Press, RRP \$35 plus postage. Email: colinmaiden@xtra.co.nz

ONE TO WIN



You Have a Lot to Lose: A Memoir, 1958-1986

Emeritus Professor C. K. Stead's second memoir has received much acclaim from critics. (If you haven't read it, alumna Diana Wichtel writes about Stead and the book at tinyurl.com/CKStead-Wichtel-profile.)

You Have a Lot to Lose is the follow-up to *South-West of Eden*, which told the story of the poet, novelist, critic and activist's first 23 years.

We have one copy of C. K. Stead's book to give away. Email UniNews: uninews@auckland.ac.nz with your name and contact details by 20 July.

“If we care about flattening curves to save lives, there are other curves for us to look at.” – Dr Karamia Müller

Photo: Elise Manahan

THERE IS NO OTHER WAY TO SAY IT

By Dr Karamia Müller

2020 is asking everyone: What is a life worth?

The answers given have had real consequences, and those consequences have not been experienced evenly. The Covid-19 pandemic and the new energy of a global Black Lives Matter movement is proving that there are answers, and there is action, and Black, Indigenous and People of Colour (BIPOC) peoples and communities must have both.

Covid-19 came first. The political leadership in the UK, US and elsewhere answered: public health must be weighted against economic health. The costs of “the cure could not do more harm than the disease”. A strawman answer made by people removed through race, disability, gender, class and sexuality from the sharp points of the question. As we have seen, that answer has let thousands die.

There is no other way to say it.

New Zealand, in contrast, went into a state of emergency early. We were asked to stay home. We were told it would be enforced if necessary. Like everyone, I was confined to a smaller world. As I hung washing in a city quiet except for the sound of birds, I reflected on how our country’s leadership answered the question. You can’t put a price on a life, and even if you did, you, me, we, “the team” couldn’t afford it.

Once you decide that lives are not negotiable, questions that appear difficult – like whether to herd immunity or not to herd immunity – have simple and clear answers. Rapidly adopting different professional and social arrangements presented some challenges to all of us, again experienced unevenly by our most vulnerable. I appreciated, and still do, the values that led to those actions. We, “the team”, collectively made sacrifices to save the lives of people we didn’t know, knowing others were doing the same to save our lives, and the lives of those we love.

Beyond New Zealand’s shores, Covid-19 continues to spread, keeping much of the world in a state of anxiety, uncertainty and collective grief. The curves charting the course of the pandemic are heart-breaking, overwhelming, paralysing. For those governments who chose to balance human costs with economic costs: how many people must die, and how much money is saved in their deaths for those who live?

As Black Lives Matter protests broke out in the US and across the world, we are being asked: how much are minority and racialised lives worth? The answer has been: not enough to justify policing reforms, or even state considerations of how to meaningfully acknowledge and address systemic racism. The list of Black deaths is heart-breaking, overwhelming, paralysing. George Floyd and Breonna Taylor have been recently added to the too-long list of avoidable, preventable Black deaths. Rayshard Brooks, lost too, in the same space of time it took to draft this opinion. No one should lose their life at the hands of another so quickly. Even more vulnerable are Black trans people, as seen in the deaths of Tony McDade, Riah Milton and Dominique Rem’mie Fells. The US state response has been consistent with their handling of Covid-19: the lives of minorities are not worth the cost to save them.

There is no other way to say it.

The Black Lives Matter protests resonate with Māori, Pacific and BIPOC communities, also systemically discriminated against, resulting in hundreds of years of avoidable, preventable death. We can acknowledge this while also honouring the lethal risks posed to police, seen in the needless death of Constable Matthew Hunt. In mapping the Government’s strategy for Covid-19, our Prime Minister told us that a life is worth any price, and we saw what the state can do when the burden of avoidable mortality is shared by Pākehā. You, me, we, “the team”, would shut down the whole country if that was what we had to do to save lives. So, what are we doing about the avoidable death of minorities?

If we care about flattening curves to save lives, there are other curves for us to look at. In healthcare, 53 percent of Māori and 47 percent of all Pacific deaths are attributed to potentially avoidable causes of death,

compared with 23 percent in non-Māori/non-Pacific. The New Zealand Department of Corrections’ most recent statistics reveal that Māori men represent 53 percent of incarcerated men, while Māori women represent 60 percent of incarcerated women. One in every 142 Māori is incarcerated, compared to 1 in 808 non-Māori. The pathway to imprisonment is paved with systemic bias. As of 2017, for low-level crime, 7 percent of Māori convicted went to prison, compared with 2 percent of Pākehā. A study published by Dr Jemaima Tiatia-Seath in the *New Zealand Medical Journal* indicates that from 1996 to 2013, 22 Pacific lives on average are lost to suicide each year. Suicide rates for Māori men are double that of non-Māori. Māori are also over-represented in homelessness, a legacy of mass land confiscations.

Black Lives Matter protests are occurring here because we have seen how far the state will go to save lives, just not for Māori, Pacific and BIPOC groups.

The current Government understands that lives are priceless but without systemic change, minority peoples keep paying for the lives of others with their own – this is racism and white supremacy – even if not everyone involved is consciously aware they are participating and therefore upholding it.

There is no other way to say it.

We must have sustained transformational reforms across education, healthcare, housing and the justice system. Merely increasing funding in these sectors will not accomplish the systemic shifts required to address long-enduring racialised bias. State agencies and public institutions must commit to Māori and Pacific-centred engagement and meaningful partnerships at every level, and BIPOC representation in every strata of decision making. We must also do better across axes of disability, gender, class and sexuality.

What does this look like? The answer is simple, but likely uncomfortable for many, especially Pākehā. If the boardroom, committee or meeting is majority Pākehā, then there is not just a diversity issue, there is a diversity state of emergency. We are all responsible for bringing urgent attention to these imbalances. New Zealand established itself as a leader in its response to Covid-19, answering clearly with life-saving values. I am hopeful we can do so again with systemic racism to save more lives. If we can shut down the country to save lives from Covid-19, what can we, me, you, “the team” do to save lives from systemic racism?

There are answers, and there is action, and we must have both.

There is no other way to say it.

■ Dr Karamia Müller is a lecturer at the School of Architecture and Planning. Her research focuses on the meaningful ‘indigenisation’ of design methodologies invested in building futures resistant to inequality. See violentlegalities.space online, a project showing now at Adam Art Gallery, Wellington.

This article reflects personal opinion and is not necessarily that of the University of Auckland.