October 2025 • auckland.ac.nz/UniNews



Unilews

JAMIE-LEE RAHIRI

Moving the dial for Māori and surgery

Page 6

STRONGER TOGETHER

Joining forces to shine a light on lymphoedema

Page 3

PRO-WRESTLER TO PROFESSOR

An academic's lessons from life in the ring

Page 8

CROSSING THE STAGE

Highlights from Spring Graduation

Page 10

IN THE **NEWS**

A selection of University staff and students who provided expert commentary in the media recently. Let us know! Email: uninews@auckland.ac.nz.



COURT ROLE IN PHILLIPS CASE

After the shocking end to the search for Tom Phillips and his three children, Associate Professor Carrie Leonetti (Law) told The Guardian, RNZ, 1News and Stuff there should be an inquiry into how Phillips was able to get access to his children before disappearing with them for four years.

Link: tinyurl.com/leonetti-stuff-phillips



THE GOOD SH*T

Obese teenagers who swallowed 'good' gut bugs were reaping health benefits four years on, Professor Wayne Cutfield (Liggins Institute) told a number of media, including The Listener and RNZ's Nine to Noon. The randomised control trial transferred fecal material in capsule form from lean, healthy donors.

Link: tinyurl.com/cutfield-rnz-gut-bugs



PACIFIC ELDERS MISSING OUT

Dr Etuini Ma'u (FMHS) told 531 PI misconceptions that Pacific elders prefer to be cared for by their family members are contributing to them receiving far less community support than others. He will use \$1.2 million of Health Research Council funding to find out who is missing out and why.

Link: tinyurl.com/mau-531pi-elder-care



3D-PRINTED BONE SUPPORTS

Dr Maedeh Amirpour (Engineering and Design) is developing 3D-printed bone supports and orthotics designed to outlast and outperform conventional options. She told RNZ's Nine to Noon these devices are stronger, longer lasting, better at absorbing everyday shocks, and tailored to each patient's body and recovery needs.

Link: tinyurl.com/amirpour-rnz-supports



FROM WASTE TO FUTURE FOOD

Professor Siew-Young Quek (Science) told the NZ Herald of her ambitions to create food products from horticultural waste. "My dream over many years has been to use food waste to create a future food that has health benefits for people and is better for the planet," she said, following her team's \$3 million funding boost.

Link: tinyurl.com/quek-nzherald-food



RUGBY AND BRAIN DISEASE

A study by Dr Stephanie D'Souza (COMPASS Research Centre) has shown high-level male rugby players in New Zealand have higher incidences (compared with their male peers in the general population) of neurodegenerative conditions later in life. D'Souza featured in media including Breakfast, RNZ and Stuff.

Link: tinyurl.com/dsouza-tvnz-rugby

THIS ISSUE

Lymphoedema research	၁
Good to Know - Digital twin collaboration - Pūtaiao Research Symposium - Triple E Awards win - Bugs and climate change data - Marine reserve turns 50	4-5
Cover story: Jamie-Lee Rahiri	6-7
Mike Lee	8-9
Spring Graduation stories	10
Arts and Books	11
My Space: Heidi Robinson	12

Cover photo: Chris Loufte

Editor: Caitlin Sykes caitlin.sykes@auckland.ac.nz Photography: Chris Loufte Design: Craig Berry Production: University of Auckland Volume 55 - Issue 8 - October 2025 Published by: Waipapa Taumata Rau, University of Auckland Communications Office, Alfred Nathan House, 24 Princes Street, Private Bag 92019, Auckland 1142 Web: auckland.ac.nz/UniNews

Something to share? The next UniNews is November 2025, copy due 14 October. Email: uninews@auckland.ac.nz

For the fortnightly Whaimōhio The Loop newsletter, email: staff-comms@auckland.ac.nz. Deadlines are on the intranet under News, Events and Notices, The Loop.

When posted, UniNews is delivered in certified degradable EPI packaging in keeping with our sustainability goals. In PDF, this document has clickable links to any URLs.

STRONGER TOGETHER

After developing lymphoedema following breast cancer treatment, a University fundraiser is banding together with a leading researcher to shine a light on the condition.

A chance conversation in April first connected Catherine Davies and Dr Hayley Reynolds.

But the pair are now firmly bonded in their mission to make a difference for sufferers of an incurable condition.

Lymphoedema causes swelling due to a buildup of lymphatic fluid when the body's lymphatic system is blocked, or damaged through the likes of cancer treatment. It requires lifelong management and can cause painful and permanently swollen limbs and increase the risk of serious and recurrent infections.

It particularly affects breast cancer survivors; after enduring often gruelling cancer treatment, up to 40 percent of these women will subsequently develop lymphoedema.

Among them is Catherine, a development manager whose work involves raising philanthropic funding for the University's Auckland Bioengineering Institute (ABI) and the Liggins Institute.

She has worked at the University for 12 years but had only been in her current role for three weeks when she was diagnosed with breast cancer in March 2024. She largely worked from home during extensive treatment that included surgery, chemotherapy, radiotherapy and immunotherapy. She had good results from her cancer treatment but developed symptoms of lymphoedema around the time she returned to the office in February this year.

"It's one of these conditions, unfortunately, where there is no cure," says Catherine. "I will be dealing with it for the rest of my life, and I've moved from active cancer treatment straight into active management of lymphoedema."

When Catherine was talking to a colleague about starting lymphoedema treatment, the workmate mentioned that ABI senior research fellow Hayley Reynolds was investigating the condition. Catherine and Hayley have since collaborated on media interviews about lymphoedema, sharing complementary patient and researcher perspectives.

"I am very open with my story," says



Catherine, who wants to increase philanthropic support for lymphoedema research, "and Hayley is a genius, so if there's anything I can do to help encourage other people to support her work, obviously that's my job, but it's now also a passion."

Hayley leads ABI's cancer imaging research group and says investigating lymphoedema was a natural progression. ABI specialises in modelling the body's systems, and in a Marsden-funded project Hayley and her team are developing computational models of the lymphatic system, specifically focused on people undergoing cancer treatment.

"We're trying to understand why and how lymphoedema develops in some people, but not others," says Hayley. "We're wanting to develop a multi-scale model that we can feed clinical data into and simulate the impacts on the lymphatic system of some of the key treatments that someone might receive for cancer."

The goal is to use this information to further personalise cancer treatments, she says, so that lymphoedema doesn't develop in the first place.

Hayley and her team are cooperating with researchers from Harvard Medical School and the Australian Lymphoedema Education, Research and Treatment Centre (ALERT) at Macquarie University. The New Zealand researchers recently gained Catalyst Fund seed funding to bring US and Australian researchers to New Zealand for a five-day workshop early next year; and the University of Auckland team and ALERT's Associate Professor Hiroo Suami will subsequently travel to the US to

learn more about the US team's clinical work and collaborate to develop more advanced lymphatic technologies.

Learning about Catherine's experience brings home the importance of the work, says Hayley, who has long been personally driven to create better outcomes for cancer sufferers. Twenty years ago, her brother died from leukaemia after complications arising from a severe infection that compromised his treatment regime.

"That's instilled in me this real desire to try to make things better for people with cancer," she says. "It's terrible what cancer patients go through, and I find it awful that you can get through that and then still end up with a debilitating condition. So, if we can eliminate or reduce those side effects, that's a good thing."

Catherine notes that health economics research related to the condition is also underway. Her lymphoedema is currently considered mild to moderate and isolated to her reconstructed breast. She's under the care of a lymphoedema specialist and foots the bill for weekly drainage massage and compression garments to hopefully limit its spread.

But she says many can't self-fund such options, yet the cost to the health system and a sufferer's productivity and quality of life if the condition goes untreated and becomes severe is far greater.

"So, it makes good economic sense to be trying to intervene early, and investing in not only finding better treatments, but ways to prevent it occurring in the first place."

■ Caitlin Sykes

GOOD TO KNOW



DIGITAL TWIN COLLABORATION **AWARDED \$4.5M FUNDING**

The Minister for Science, Innovation and Technology, the Hon Dr Shane Reti announced \$4.5 million from the Catalyst Fund to support the New Zealand United States Digital Twin Research Programme during a visit to campus in September.

The project brings together the Auckland Bioengineering Institute (ABI) and the University of Texas at Austin's Oden Institute. The latter specialises in AI, advanced simulations and digital twins across a range of scientific, engineering and medical applications. By combining expertise, tools and data from both countries, the collaboration will accelerate discoveries and give New Zealand access to cutting-edge science.

Minister Reti says our existing AI research

is expanding, with innovative work already under way in areas such as precision health and agriculture.

"This investment will accelerate that work by bringing our best researchers and businesses together to build capability, fast-track commercialisation, and create high-value jobs and new opportunities for Kiwi researchers,"

ABI director Professor Merryn Tawhai says the collaboration partners the ABI with the Oden Institute and its leading work in AI and advanced simulations. "It also enables the ABI to become strongly involved with two New Zealand public research organisations (PROs), PHF Science and the Bioeconomy Science Institute," she says.

Full story: auckland.ac.nz/digital-twin-colab

Leigh Marine Laboratory boat and divers pictured in 1975. Photo: University of . Auckland photographs

LANDMARK MARINE **RESERVE TURNS 50**

This month, 50 years since the establishment of the Goat Island Marine Reserve is being marked.



AUCKLAND NAMED TOP UNIVERSITY FOR INNOVATION AND ENTREPRENEURSHIP

The University has been named Innovative and Entrepreneurial University of the Year, recognising its leading approach to start-up creation and innovation.

The Triple E Awards, which were held 10-12 September in Prague, recognise entrepreneurship and engagement in higher education. In this year's awards, 77 finalists from 30 countries competed across a variety of categories.

Vice-Chancellor Professor Dawn Freshwater says fostering innovation is central to the University's vision for the future.

"This award recognises our ambition to be a global leader in innovation and entrepreneurship. It celebrates the creativity and drive of our staff and students, and the way they are helping shape solutions that will benefit Aotearoa New Zealand and the world."

Darsel Keane, director of the University's Centre for Innovation and Entrepreneurship (CIE), says the award recognises how innovation and entrepreneurship are woven through teaching, research and community engagement.

This includes everything from the \$40 million UniServices Inventors' Fund to CIE's programmes, which reach more than 7,000 participants annually. Solve It, CIE's innovation programme in which students team up with industry to tackle real-world problems, attracted more than 100 students

"At the heart of this achievement is our belief that universities should both prepare graduates to be innovators, creators and solution seekers, and foster the full spectrum of research, from bold blue-sky exploration to applied solutions that address pressing challenges at home and abroad," says Darsel.

Full stories:

auckland.ac.nz/triple-e-award-2025 and auckland.ac.nz/solve-it-2025

RANGATAHI URGED TO RISE **UP IN SCIENCE**

The call for more young Māori to explore pathways in science rang out at the Pūtaiao Research Symposium 2025, held in Whangārei in September.

The symposium celebrates Māori innovation and resilience in research, education and community-led science. It was led by the University's Faculty of Science and held at Te Puna o Te Mātauranga Marae at NorthTec, in collaboration with the Tai Tokerau Campus.

During his mana whenua keynote address, Matua Taipari Munro (Te Tai Tokerau), an educator and te amorangi (leader) at NorthTec, said rangatahi play an important role in the future of science. "The important thing is to bring science to our people and encourage our young people to move into the sciences," he said.

Dr Jade Le Grice (Te Rarawa, Ngāpuhi), the Faculty of Science's associate dean Māori, was an organiser of the symposium and chaired two panel discussions.



"It's been fantastic bringing such incredible minds to korero, to share, reflect and grow," she said. "We've had esteemed rangatira share their korero with us, and Maori scientists [share] how they incorporate matauranga Māori in their work," said Jade.

Dan Hikuroa (Ngāti Maniapoto, Waikato-Tainui, Ngaati Whanaunga, Pākehā), an associate professor of Māori Studies and assistant dean of research Māori in Te Pūtahi Mātauranga, gave a keynote speech focused on weaving Indigenous knowledge with other world views. Other

speakers included Professor Jacqueline Beggs, Matua Te Warihi Hetaraka, and Matua Bernard Henare from the University's James Henare Research Centre.

The symposium's kai-tohu-korero (MC) Geremy Hema (Ngāti Paoa, Te Rarawa) said it was invaluable having experts and community leaders share the value of mātauranga.

"Scholars have shared insights echoing how Māori have long practised the field that has come to be known as science," he said.

Full story: auckland.ac.nz/putaiao-2025

Richard O'Rorke collecting insect DNA from a vintage car number plate. Photo: Aimee van der Reis

TURNING SQUASHED BUGS

INTO CLIMATE CHANGE DATA

What if the insects you hit with your car could contribute to climate change research?

Full story: auckland.ac.nz/climate-data-bugs



JAMIE-LEE RAHIRI: JUST GETTING STARTED

Dr Jamie-Lee Rahiri's work improving surgical care for Māori has been recognised with a prestigious prize for women in science.

Jamie-Lee Rahiri was still in high school when she was selected for the New Zealand women's squad to compete at the waka ama world championships in 2006.

"She was known as the best steerer in New Zealand," recalls Professor Matire Harwood. Matire was then in her early thirties when she first met the teenaged Jamie-Lee at a training camp, as a fellow member of the squad.

"As long as I've known her," says the Faculty of Medical and Health Sciences deputy dean, "I've been amazed by her excellence, but it's always integrated and aligned with who she authentically is, and with the values of her whanau."

They're qualities that others have recognised too - most recently through a 2025 L'Oréal-UNESCO For Women in Science Fellowship, with Jamie-Lee one of four (and the only from New Zealand) to receive the honour for advancing research in their field.

Jamie-Lee (Ngāti Porou, Ngāti Whātua o Kaipara, Te Ātihaunui-a-Pāpārangi) has had a stellar rise as an early-career clinical researcher, focused on understanding and addressing health inequities among Māori. Currently a third-year general surgery trainee based at North Shore Hospital, the University of Auckland senior research fellow has been recognised for improving surgical care for Māori patients and inspiring the next generation of wāhine Māori in medicine

The fellowship comes hot on the heels of Jamie-Lee receiving the John Corboy Medal the Royal Australasian College of Surgeons' top honour for a surgical trainee - in May.

Jamie-Lee says she's been surprised by the wins, which also prompted a couple of thoughts.

"I've often felt I was just quietly working in my own corner, focused on the task at hand. Reading the nominations made me realise that others see real impact in my work - that was humbling and affirming," she says.

"I also felt a bit whakamā [embarrassed] as though I don't deserve this recognition yet,

because I know I'm only just beginning to scratch the surface of what I hope to contribute to our people and my profession."

A passion for surgery

Jamie-Lee spent her first decade in smalltown Tokoroa, before moving to Auckland. She had early exposure to tertiary education through her mum, who enrolled in a Bachelor of Science as a mature student at the University's Tāmaki campus.

"My mum was a single parent, so I often found myself sitting in lecture theatres alongside her. At the time, it felt like tagging along but, in retrospect, it was formative. It opened my eyes to the fact that education didn't stop at school."

High school uncovered a passion for chemistry and by year 12 at Northcote College she'd decided on becoming a doctor.

"I initially aspired to be a GP," she says, "simply because that was all I had ever seen. Growing up in Tokoroa, there were no specialist doctors

in the hospital or even in the wider community, so my initial understanding of the world of medicine was defined by general practice."

Jamie-Lee graduated with a Bachelor of Medicine and Bachelor of Surgery (MBChB) in 2014, then undertook her residency at Middlemore Hospital. It was there, she says, that her focus shifted from general practice to surgery by chance.

"I was on a team with all female surgeons who were so supportive and doing amazing work. They were ambitious, intelligent and amazing technicians," she recalls. "At first I was reluctant to voice to them that I really loved surgery, knowing the commitment required; but, when it got back to them, they sat me down and said 'if you want to do surgery, we'll back you'."

Award-winning research

She moved from being a house officer to a surgical registrar, then applying for surgical training. However, aware of the punishing hours required for the latter and with one young daughter and a desire for more children, Jamie-Lee decided to take another turn.

She took up an offer from Professor Andrew Hill to join his research team and embarked on a PhD in surgery.

While working at Middlemore Hospital she'd seen an increase in funding for bariatric surgery to combat growing obesity among Counties Manukau's population. However, she noticed that the processes for selecting candidates for the surgery appeared to favour those who had the resources that made it easier for them to attend appointments, for example, and lose weight prior to surgery.

"It struck me that access to surgery had, in many ways, become a lottery of privilege, and that challenged me deeply. Equity in healthcare shouldn't depend on who you are or the resources you have - or don't have - but unfortunately, when we look at the data, it does."

Her PhD, co-supervised by Matire, dug into this by exploring Māori experiences of bariatric surgery, focused on Counties Manukau. It surveyed perspectives of patients who battled negative societal views and stigmatisation related to obesity and found that the quality of their surgical outcomes related to the support they had access to. It also provided a potential model for more equitable, patient-centred care.

Her PhD won a 2020 Vice-Chancellor's Best Thesis award, but not everyone, she says, was happy with what it unearthed. Surgery is an inherently stressful profession, she says, and being told you're providing inequitable care creates added pressure. But highlighting inequity isn't about apportioning blame, she says; it's about being open to accepting that "when inequities are revealed in our data, it's

an opportunity to pause and ask ourselves as clinicians how we can do better".

"Then we need to consider how to reshape our systems and look inward at our own practice in a culturally safe manner to ensure we're delivering equitable care."

Addressing inequity remains a focus for Jamie-Lee's research, which has evolved to look at the outcomes for Māori from other operations. During her surgical training she has worked at hospitals in Tairāwhiti, Taranaki and Auckland. How surgical outcomes compare across regions and within a large city has become another subject of her research.

Supporting others

As well as recognising Jamie-Lee's research and clinical excellence, the For Women in Science Fellowship and John Corboy Medal both recognise her work supporting the next generation of wāhine Māori surgeons and researchers.

Jamie-Lee has been a pioneer of Te Poka Pū, an initiative that supports and advances Māori into surgery, and is part the Surgical Sisterhood, which supports and advances wahine Maori and Pacific women to enter and advance surgical careers. At the University, she also supervises honours, masters and doctoral researchers.

Tikanga Māori, she says, has taught her the importance of reciprocity and collective strength. At its best, the surgical profession is built on those same principles, she adds.

"What I love most about supporting our teina [younger generation] coming through is knowing that the culture we cultivate in the early years of training will shape the profession for generations. We're not going to pass on great culture to the next generation if we're not embodying it."

She says receiving the For Women in Science Fellowship will allow her to take on a parttime research assistant to support her in the competitive and demanding fields of surgical training and research, all while being mum, with her husband Dr Jason Tuhoe, to three daughters, aged 14, nine and seven.

Matire, who received the same fellowship in 2017, says she's over the moon that Jamie-Lee has received the award, which will help her continue to create improved medical outcomes for Māori

"She's an amazing researcher and clinician who always gives to her community," says Matire, "as well as being an amazing mum and partner."

And it's those latter roles, Jamie-Lee notes, which have kept her grounded and balanced throughout her career so far - and will continue to be her priority.

"My whānau will always come first," she says. "I am genuinely passionate about surgery and the privilege of serving my patients as an aspiring surgeon, but the true legacy I leave will be through my whānau."

■ Caitlin Sykes

"I'm only just beginning to scratch the surface of what I hope to contribute to our people and my profession."

- Dr Jamie-Lee Rahiri, Faculty of Medical and Health Sciences





FROM PRO-WRESTLER TO PROFESSOR

In an expert marketing move in the lead up to his inaugural professorial lecture, Mike Lee told invitees he would reveal some rare footage regarding his pre-academia foray into a 'professional sport'. He didn't disappoint.

It was the 1980s, and larger-than-life figures like Hulk Hogan enjoyed a cult following.

The dramatic theatre of body slams aired on low-definition TVs and, in Mt Roskill, Mike Lee and his brother took to the ring. Their setup was basic, but the danger was real: a steel-framed trampoline with exposed springs and no netting.

A few minor injuries and many years later, after completing a BSc in psychology and a masters in industrial and organisational psychology, Mike craved a break from the academic grind.

"You get kind of sick of thinking intellectually, right? And so, the most logical thing you can do when you need a break is, of course, to become a professional wrestler," Mike told the crowd at his inaugural professorial lecture in July.

The Killer Kowalski School of Professional Wrestling in Boston, Massachusetts, was where Mike took his well-deserved break. There, he

spent nine months training, meeting some of his childhood heroes, and learning life-long lessons.

One of the lessons he's learnt from professional wrestling is "the value of making the other guy look good".

"You're pretending to kill each other, but you're actually doing everything you can to protect the other person," he says. "Making the people you work with look good, and keeping each other safe by letting them know you won't drop them - literally - helps to lift everyone's game."

To this day, when Mike needs a break from his packed schedule as the director of the Master of Business Administration and assistant dean of professional programmes, keeping active is a priority. He's a member of a gym, goes to boxing class, does yoga and occasionally surfs.

"The 'healthy mind, healthy body' connection is important to me. We need to be healthy and fit so we've got the energy to think better, to be better for our students and families."



"I've learned to dip my toe into new challenges and to keep growing and learning with my colleagues."

- Professor Mike Lee, Auckland Business School

An academic legacy

Mike was born to Singaporean parents in New Zealand in the 1970s. His dad, Dr Ho Huat Lee, studied organic chemistry as a doctoral candidate at the University of Auckland and was the first of his 15 brothers and sisters to graduate from university. Ho went on to have a long and impressive career at the University Cancer Society Research Centre.

"He was involved with 15 patents that collectively have probably saved hundreds of thousands of lives around the world in the battle against cancer," says Mike.

Mike's mum, Sim Ah Soon, who speaks four Chinese dialects, also had an impressive career in New Zealand's real estate industry; she was named the top salesperson in 1992 and 1994 by the Real Estate Institute of New Zealand. Meanwhile, Mike's younger brother and sisterin-law also graduated from the University of Auckland, both with degrees in engineering.

Before his interest in marketing, Mike says he actually wanted to be a big-game zoologist.

"I used to love nature documentaries. I watched all the big game ones - cheetahs chasing prey, prides of lions, elephants, all those iconic African mammals. Then we moved to New Zealand, and I realised I needed to pivot," he says.

"Surrounded by oceans, I thought, if I couldn't study big game, I could still be a marine biologist or even an aquaculturalist. But stage two genetics put a stop to that."

Mike then moved into psychology and was particularly interested in social psychology. The discipline also had another attraction - the ratio of women to men was favourable, says Mike, who met his wife, Christina, during their studies. Together, they have a daughter, Amelia, who began studying at the University of Auckland this year - the same year Mike was made a professor and his dad retired after 38 years of service.

The impact of anti-consumption

When Mike returned to New Zealand from his wrestling stint in Boston in the early 2000s, Naomi Klein's book No Logo was making waves. Until then, brands and capitalism were widely seen as positive forces, but Klein challenged that view, showing how corporations could grow too powerful.

Keen to explore the subject further, he looked into whether the University's psychology department had space for a PhD in the area. It didn't, but the marketing department did. At the time, the head was Professor Rod Brodie and the department was delivering a new course, Understanding Consumers, at the former Tāmaki campus. Dr Brett Martin, Mike's first supervisor, suggested to Rod that Mike teach that course.

"It was a great honour for him to ask me. I was



like, 'wow, I could teach this course and really take ownership'. It felt like a huge responsibility, and an incredible opportunity," recalls Mike. His teaching evaluations came back strong, "and the University hasn't been able to get rid of me since", he says.

While he was doing his PhD, Mike launched the International Centre for Anti-Consumption Research - a global network of academics and practitioners focused on understanding anticonsumption and consumer resistance.

About 15 years after his first lecture and a slew of research and teaching later, outgoing MBA director Dr Rick Starr asked Mike to take over. He reluctantly agreed.

"It wasn't the students that worried me - I loved the students; it was the critically minded academic staff I'd have to manage that freaked me out." Despite his hesitation, he has loved the role.

Research also remains central to Mike's career. He's currently supervising nine PhD students, each exploring unique facets of anti-consumption.

"One of the big questions that really interests me is how we can measure the true impact of anti-consumption on a brand," he says.

"It's easy to point to a media storm after a crisis - say, a Tesla autopilot accident - and assume people will avoid the brand or its value will drop. But there are so many other elements that can play into it, so proving long-term cause and effect is difficult."

Looking ahead, Mike says he wouldn't mind taking on leadership at a higher level at some point in his career. "I've learned to dip my toe into new challenges, and to keep growing and learning with my colleagues."

It's a similar approach to the one he took in the ring. Wrestling, he says, demanded trust, support, timing and discipline.

Academia, it turns out, isn't so different.

■ Sophie Boladeras



"The most logical thing you can do when you need a break is, of course, to become a professional wrestler."

- Professor Mike Lee

GRADUATION

A selection of stories highlighting those who crossed the stage at the University's Spring Graduation.



Nona Taute: PhD in Civil and **Environmental Engineering, Faculty of Engineering and Design**

A seven-year PhD journey has put mātauranga Māori at the centre of geothermal decision making in Aotearoa, giving iwi and hapū a meaningful seat at the table.

Nona Taute (Te Ārawa, Tainui) grew up in

Rotorua where for generations his whānau have lived alongside geothermal features, long used by Māori for bathing, cooking and other cultural practices. In the 1960s, part of his koro's land, which stretches towards Lake Rotorua, was taken under a Public Works Act to build Rotorua Airport. The geothermal pools that once lined the lakeside were buried.

More than 60 years later, that whanau experience sowed the seed for Nona's doctoral thesis, which aims to empower Māori to contribute knowledge when decisions are made about geothermal developments.

Nona describes his work as a decision support tool – a bridge between technical and non-technical worlds so iwi and hapū can effectively contribute to decision making, he says.

"What this [research] does is make non-technical people feel like experts, because they're getting this information in a way that they can meaningfully interpret for themselves, come up with their own opinions and concerns, and then those things are translated back to the engineers or clients to hopefully implement them into design and management systems."



Abtin Maghsoodi, PhD in Operations and Supply Chain **Management, Business School**

The inspiration for Abtin Maghsoodi's thesis, which explores using artificial intelligence to solve complex healthcare problems, was very personal.

When he started his PhD in 2021, Abtin's late grandmother was living with Alzheimer's, and he saw how challenging it was for her to navigate the health system.

"That experience stayed with me and made me want to work on something that could improve care for older patients."

Older people often face complex health issues, such as multiple chronic conditions, which make their time in hospital particularly challenging, says Abtin. In response, he created an intelligent tool called REACH (Recognising Episodes of Acute Complexity in Health), which uses machine learning to help hospitals identify complex patients in real time and prioritise their care.

It's now being considered for rollout across the Midland, Te Manawa Taki region of Health New Zealand and Abtin's second programme, REACH 2.0, is also being considered for wider implementation.

"[My models] classify patients into complex and non-complex groups and predict who might be at risk of coming back to the hospital soon after discharge. This means hospitals can prioritise care, reduce delays, and prevent unnecessary readmissions," he says.



Talei Tu'inukuafe, PhD in Art History, Faculty of Arts and Education

Her thesis highlights their significance as expressions of power, lineage



Cam Hoffbeck, PhD in Biological Sciences, Faculty of Science

US student Cam Hoffbeck, 28, snuck up on tuatara for her PhD in Biological Sciences.

Venturing to sanctuaries around the country, she took swabs from the ancient creatures for the first study of the tuatara microbiome.

Soon she was a seasoned science communicator – everyone wanted to hear about it. "The outreach has been so incredibly rewarding," says Cam, who's from Portland, Oregon. "It's what scientists need to do." In particular, winning the University's 2023 3MT contest - where students condense their theses to three-minute talks - led to a string of media appearances.

The New Zealand chapter of the microbiologist's story got off to a false start in 2020, when Fulbright scholars were told to return home because of Covid-19. She got back to New Zealand in September 2022.

Microbiologist Professor Mike Taylor and pre-eminent tuatara expert Professor Nicky Nelson, of Victoria University, guided Cam's work.

What did it show? That the tuatara gut appears to be remarkably stable in the face of disturbances caused by shifts in diet or living conditions. The study offers clues as to how the reptile has survived for millions of years.

Full stories: auckland.ac.nz/grad-stories

LIFE AND MEMORY

University art collection adviser Madeleine Gifford introduces a recent acquisition.

Elusive, slippery, ambiguous and ethereal - they're all words used to describe the distinctive portraiture of Hannah Ireland (Ngāti Hine, Ngāpuhi).

A contemporary artist based in Tāmaki Makaurau Auckland, Hannah is perhaps best known for her portraits that are reverse painted onto the glass of recycled window frames. Often the figures in these paintings are abstracted and unnamed, seeming to bridge the gap between ephemerality and form.

In her more recent bodies of work, however, the Elam School of Fine Arts alumna has employed canvases that have been cut and stitched back together. Their subjects incorporate figures and fragments of personal memories that take a more definable shape than her earlier works.

The striking double portrait, 'Tethered to You' (2024), captures this turn in the artist's practice and has recently been acquired as part of the University of Auckland Art Collection.

'Tethered to You' was first exhibited as part of a commissioned body of work created for the first Aotearoa Contemporary (2024) at Auckland Art Gallery Toi o Tāmaki. Sponsored by Ngāti Whātua Ōrākei, Aotearoa Contemporary will occur every three years, aiming to showcase current creative practices and emerging artistic voices. The 2024 iteration featured 27 artists.

including Hannah, who presented a total of 22 projects across a range of mediums.

Hannah's series of five paintings for the exhibition was born following a return to her childhood home in East Auckland. The works evoke quiet and imagined scenes from her family's everyday life.

The exhibition text describes the series as 'a metaphorical marae, a kāinga, a home', through which the audience gains a glimpse of Hannah's personal life and memory. The two seem embedded in their compositions, with the subjects painted from photographs taken over different times. Much like their canvases, which have been separated and re-stitched together, the paintings' subjects have been composed from disparate yet recognisable fragments.

'Tethered to You' depicts a loose rendition of Hannah's sister, whose head is turned to gaze out from the canvas through eyes that are not quite defined. She, alongside the unnamed figure at her side, are enfolded in forms evocative of korowai. A whimsical koru is in place of the head and facial features of the second figure, representing the continued presence of tūpuna.

In an interview with The Art Paper, Hannah described how this koru form made its way into the body of work as she reconsidered her place as a Māori artist. "Up until this point, I think I somewhat shied away from using symbols, imagery or visual language that is recognisably Māori. I allowed myself the safe space to integrate and use the koru as an apt symbol to ground whakapapa. For myself, the koru speaks to those who have come before and stands for those who will come after; past, present, future."

'Tethered to You' is one of several artworks



Hannah Ireland. 'Tethered to You' (2024). Image courtesy Laree Payne Gallery.

from the collection on loan for an external exhibition this year. The painting is included in Fell into Me: Hannah Ireland, a survey exhibition curated by Janine Parkinson at the New Zealand Portrait Gallery. The exhibition runs until December 2025, after which 'Tethered to You' will find a permanent home on campus.

■ Madeleine Gifford, art collection adviser

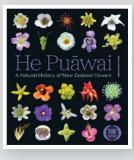


Edges of Empire

University of Auckland Professor of Sociology Francis Collins co-authors this book exploring the politics of immigration in Aotearoa New Zealand between 1980 and 2020.

New Zealand is now home to people from more than 200 birthplaces who speak around 150 languages between them. That megadiversity, the authors say, reflects an immigration system that has transformed over the past four decades. The book outlines how the system has shifted from a racially exclusive one, underpinned by ideas of Empire and colonisation, into one that is economically exclusive.

Francis Collins, Alan Gamlen and Neil Vallelly, Auckland University Press, \$50



He Puāwai

This natural history of New Zealand flowers focuses on 100 native species, which are illustrated through more than 500

photographs that can be viewed in 3D. The featured species represent the full range of flower phenomena of Aotearoa. They include the familiar, iconic flowers of kōwhai, mānuka and pōhutukawa alongside lesser-known oddities like the waterpollinated flowers of eelgrass, bat-pollinated blossoms of kiekie, and the world's smallest flowers, Wolffia. The author, Philip Garnock-Jones, is an emeritus professor and former chair of botany at Victoria University of Wellington.

Philip Garnock-Jones, Auckland University Press, \$80, released on 9 October



Te Āhua o ngā Kupu Whakaari a Te Kooti

Tā Pou Temara - a member of the Māori Queen's Council of Twelve, a professor, and a tohunga of Māori language and thought - offers an exploration in te reo

Māori of the prophetic messages of Te Kooti Te Turuki Rikirangi. The Ringatū Church founder's visions, teachings and songs are examined by Tā Pou, who asks: have the words of Te Kooti - a towering figure of his time - been fulfilled, and do they still live today? The book is described as a rich source of knowledge for those seeking understanding of the Ringatū faith, Māori prophecy, the Māori language and the history of the land.

Tā Pou Temara, Auckland University Press,



GETTING CRAFTY

Never get into a Secret Santa battle with biological sciences PhD candidate Heidi Robinson.

A couple of years ago she picked up her lab's challenge to create a Christmas gift for their boss, Professor Rod Dunbar, where the tradition is to give him a fun gift bearing his image.

But rather than giving him a coffee cup or a key ring, the keen crafter created a portrait of the professor that she'd meticulously rendered in cross-stitch. The result, which took more than 500 hours to complete, was so superlative that the 'Rod Dunbar' Christmas challenge has since ceased: it was an effort no one else could ever top.

Heidi, who began a PhD in immuno-oncology this year, specifically looking at ovarian cancer and endometriosis, brings her love of craft and colour into her workspace. She shares some of the stories behind her science-inspired crafty creations.

Where does your love of crafting come from?

My family is very crafty. I learned how to knit and hand sew before I was ten from my grandmas on both sides, as well as my aunties and my mum.

I also taught myself how to crochet a couple of years ago, and I've since delved into that. It was the same with cross-stitch – I just picked it up. There are craft kits you can buy, and a lot is self-taught. You can learn a lot from the internet.

I pretty much always have a craft in my

hand. I find it very meditative and it's good for stress relief. I also find that if I'm struggling with a science problem, I'll sit with something I'm making, and it gives me a break and an opportunity to think about the problem in a different way.

How have you fused your love of science with your crafting?

Some of it started with our lab Christmas party. A few years ago, I was trying to figure out what to bring for Secret Santa and I decided to cross stitch an immune cell tree, with a little citation underneath (pictured below right), because we're an immunology lab. I made up the pattern myself and just thought it would be a fun little gift. Everybody loved it.

We have this funny Christmas tradition in the lab where people give our lab head, Professor Rod Dunbar, a gift with his face on it. So after I made that first cross-stitch people joked and asked 'are you going to do a cross-stitch of Rod next?' And I was like, 'you know what? I could. And why not?' It ended up being at least 500 hours of work; it was quite a big project.

This past year, I toned it down a little, but it was still fun and science themed. Everyone looks forward to my Secret Santas now!

What are you currently crafting?

I'm in my crochet phase, where I've created things like a plushy microscope (below left). I do a lot of microscopy, so the lenses are true to size.

I'm currently making a crochet tank top, which is not quite finished, but I love the green color. And then I've got a jumper I'm knitting. It's a nice soft, blue, metallic yarn, which I thought was so delicious I just had to make something with it.

And, of course, I've got my next Secret Santa project on the go. I'm working on a crochet creation this year.

