



UniNews

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



Dr Kyle Eggleton

CULTURAL SAFETY TAKES MAHI

After a Whangārei patient blamed a misdiagnosis on racism, Associate Dean Rural Dr Kyle Eggleton (FMHS) spoke to Waatea News about cultural safety. A former GP in the Hokianga, Eggleton said that improving cultural safety requires ongoing mahi of critical reflection and understanding the history of our country.

Link: tinyurl.com/eggleton-waatea



Kane Meissel

WHAT MAKES A GOOD TEACHER?

Associate Professor Kane Meissel (Arts and Education) was on RNZ's *Nights*, 95bFM, Newstalk ZB and in Schoolnews.co.nz talking about what 1,000 young people (aged 13) thought made a good teacher: firm but fair was their verdict. Data for the 'Our Voices' project report was collected from the Growing Up in New Zealand study.

Link: tinyurl.com/meissel-schoolnews



Carolín Nieder

FIRST RECORDING OF SHARK NOISES

When PhD student Carolín Nieder heard clicking sounds while handling a rig shark for an experiment at the Leigh Marine Laboratory she was confused. Sharks "were thought to be silent, unable to actively create sounds", she told the *New York Times*. Subsequent recordings were a world first.

Link: tinyurl.com/nieder-new-york-times



Dr Lucy Hardie

VAPING A GATEWAY TO SMOKING

The advent of vaping slowed the decline in teenaged smoking, a study of data on year ten students over 25 years shows. Dr Lucy Hardie (FMHS) told RNZ the research contradicts an earlier study quoted by the tobacco industry suggesting vaping was displacing smoking by looking at the same data but over a longer period.

Link: tinyurl.com/hardie-rnz-vaping

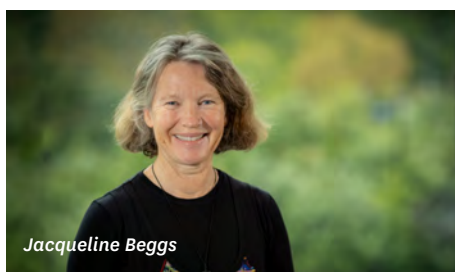


Jane Waterhouse

DEMENTIA-FRIENDLY HOUSING

PhD researcher Jane Waterhouse told RNZ's *Afternoons* that dementia-friendly house design can help people stay in their homes for longer. Waterhouse, who aims to empower people with dementia to participate in research, focuses on natural light levels in houses, which have significant impacts on people with dementia.

Link: tinyurl.com/waterhouse-rnz-homes



Jacqueline Beggs

A PLAGUE OF WASPS

If you've been battling a plague of wasps, you're not alone. Professor Jacqueline Beggs (Biological Sciences) told the *NZ Herald* and RNZ's *Morning Report* that the long, dry, hot summer had caused wasp numbers to swell. Wasps can harm native birds and insects, so it's important to control their numbers.

Link: tinyurl.com/beggs-nzherald-wasps

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Cover photo: Chris Loufte

Editor: Caitlin Sykes

caitlin.sykes@auckland.ac.nz

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ON A MISSION TO SAVE LIVES

Firsthand experience of addiction and recovery has inspired Emily Duncan's academic journey.

Emily Duncan believes trauma underlies most addiction, because she has seen it in her own life and those of recovering addicts.

Now Emily is graduating at the Faculty of Medical and Health Sciences' May ceremony with a masters looking at evidence for trauma-informed rehabilitation.

She has "worked her butt off", writing a thesis, raising a toddler as a solo mum and working as a clinical lead practitioner for Grace Foundation, a rehabilitation service comprising 70 percent Māori and 25 percent Pacific people.

It's been a long journey for Emily, who grew up in the slums of Manila, the eldest of three children of missionary parents. "Extreme poverty, sickness, death and grief were a way of life," she recalls.

It was a transitory life interspersed with furloughs to cities in Australia and New Zealand and England, before settling in Auckland aged 14.

"I was a teenager full of rage, a distorted identity and high anxiety. I had depressive episodes quite regularly and, looking back, I lived in constant survival mode and developed multiple coping mechanisms from a young age."

By age 21, Emily was using several substances to manage her moods and regulate emotions stemming from toxic environments, with no vision for a future beyond her drug use and partying. Abusive relationships and an eating disorder were the norm.

Through her twenties, she became distant with her family, was in and out of hospital as drugs wreaked havoc on her body and experienced several overdoses. At 27, Emily escaped New Zealand for Australia.

When she returned to New Zealand for her sister's wedding, she witnessed the lives of her younger siblings, with their careers and families, and her mother confronted her about her substance use. It prompted Emily, for the first time, to see what she'd considered 'normal', and as a way of coping with life, as addiction.

"I started looking at life patterns and seeing that all my family members are Christians, living by faith, and they didn't use substances. I saw that addiction was a pathway I had used to cope with life," she says.

She searched online for Christian rehabilitation organisations and found Transformations

Australia. After completing an 18-month residential programme, Emily was employed there for the next ten years, working her way up to general manager of six campuses. After a decade of working in both clinical and management roles, however, she experienced burnout and a breakdown. She returned to New Zealand to rest, study and get to know her family.

After completing a theology degree at Laidlaw College, Emily found she needed a qualification in addiction to work clinically in New Zealand. It took perseverance, due to minor criminal charges, but eventually she completed a Postgraduate Diploma in Health Sciences at the University, specialising in addiction studies. This coincided with joining Grace Foundation and developing a trauma-informed programme.

"A lot of programmes are behaviour-modification based – it's all about clean time; they are not trauma-informed, and most of these organisations have high relapse rates.

"The solution is to deep dive into the emotional pain that was caused by your childhood adversity. Then to go on this healing journey of reconnecting with yourself, understanding your identity and figuring out what your life purpose is – then building a life that you don't need to escape from."

Her masters supervisor, Dr Rodrigo Ramalho (Rama), a senior lecturer in the Department of

Social and Community Health, describes her as an ideal student. Rama says Emily came up with the research question of 'what role, if any, does trauma, particularly intergenerational trauma, play in developing an addiction?'

"She had a look at everything that has been published around that topic, which is not a great deal, reviewed it and found links," says Rama.

Adds Emily: "There is a link between childhood trauma impacting attachment and parenting styles, subsequently creating childhood trauma for the next generation. That increases the risk of developing unhealthy coping mechanisms that can lead to the development of addiction.

"The science of epigenetics, alongside a surge of data over the last 25 years delving into the theory of trauma, academically verified something I had already found in my own practice."

Emily has seen people in therapeutic community rehabilitation centres across Australia and New Zealand breaking the cycle of addiction through healing from trauma, providing hope that it is possible.

She is now considering a doctorate, to continue seeking more tools for evidence-based healing for her trauma-informed programmes.

"That is where I would like to have a voice and to come up with more solutions for Aotearoa's most vulnerable communities."

■ Jodi Yeats



Emily Duncan graduates this month with a masters from the Faculty of Medical and Health Sciences.

Photo: Chris Loufte



Professor
Rochelle
Constantine

'SHARKTOPUS' GOES VIRAL

Footage of an octopus hitching a ride on the back of a shark, filmed in the Hauraki Gulf by University of Auckland marine scientists, recently went viral on social media, attracting millions of views.

The phenomenon, nicknamed 'sharktopus', also prompted stories in the *New York Times*, *USA Today*, the *Guardian* and many more outlets.

Comparisons were drawn in some coverage between the shark and an Uber, while perhaps the most fanciful description, on the site IFLScience, had the octopus 'riding a shark like a cowboy'.

The unexpected footage was shot by Esther Stuck (GoPro) and the late Wednesday Davis (drone) near Kawau Island in December 2023 during research into marine species feeding aggregations in the ocean.

Professor Rochelle Constantine (Biological Sciences) told journalists that it was a mystery why the Māori octopus, a bottom dweller, was riding a three-metre short-finned mako shark, which isn't found near the seabed.

"The shark seemed quite happy, and the octopus seemed quite happy," she told the *New York Times*. "It was a very calm scene."

Rochelle has experience with the media through her research into whales and dolphins, and knew the footage would go big. For her, it was an opportunity to spread a simple message: let's do what we can to save our extraordinary underwater world.



Professor Stuart McNaughton

ROYAL SOCIETY FELLOWS NAMED

Seven leading researchers from Waipapa Taumata Rau have been named as Ngā Ahurei a Te Apārangi Fellows by the Royal Society Te Apārangi.

The Fellowship recognises researchers, scholars and innovators throughout New Zealand who have achieved excellence both nationally and globally in their various disciplines across science, technology and the humanities.

Among the University's recipients in 2025 are Arts and Education Professors Stuart McNaughton, for being an international leader in learning and development, and Nicholas Rowe, who has the honour of being among the

first Fellows from dance studies elected by any Royal Society.

Other recipients are Professor Helen Danesh-Meyer (FMHS) for being an international leader in the field of neuro-ophthalmic disorders; Professor Geoffrey Waterhouse, for being an internationally renowned expert in single-atom catalysts; and Professor Stephane Coen, for his fundamental discoveries in photonics (both from Science).

Professor Snezhina Michailova (Business School) is recognised as a Fellow for her groundbreaking research in international business and management; and Professor Charles Clifton (Engineering and Design), for significantly advancing the engineering practices for designing complex steel and composite steel structures.

Full stories: auckland.ac.nz/rsnz-2025-arts and auckland.ac.nz/rsnz-fellows-2025



MODERNISED LOGO UNVEILED

It's now one brand for all, as the University has released a refreshed logo to be used across all faculties, departments and in its international marketing.

The refreshed logo features a simplified design in the University's official colours, with an updated version of the traditional shield. It's clearer, more accessible and meets standard accessibility guidelines.

Mark Howard, director of marketing and recruitment, explains the University didn't want to change too much, but there was a real need to start representing the University as one institution and brand.

"The logo is the visual representation of the sum of all our parts so it's exciting to unite all aspects of the University under a single logo."

He said there have been minimal costs associated with the refreshed logo, and these will be offset by cutting out the need for custom logos for different parts of the University. The other cost saving comes from the new font, which is a free Google font.

The design also includes Waipapa Taumata Rau at the top and University of Auckland bolder below. This is in keeping with the convention outlined in the University's te reo Māori policy and language revitalisation plan. In international markets, the logo will always be seen in the context of other information that clearly identifies the University's New Zealand location.

The refreshed logo will be rolled out over 18 months; materials featuring the University logo will only be updated when they need replacing.

Full story: auckland.ac.nz/refreshed-logo

MINISTER VISITS NEWMARKET PRECINCT

Race cars and 3D-printed guitars were among the innovations on show when the University hosted the Minister of Finance and Economic Growth, the Hon Nicola Willis, for a tour of Newmarket Innovation Precinct.

The Minister was at the precinct on 20 March to learn more about the entrepreneurs, researchers and start-ups that collaborate in the space. The precinct aims to foster innovation and drive economic growth.

Among those who spent time with the Minister was Olaf Diegel, Professor of Additive Manufacturing, who showed her a range of commercial and other initiatives produced by the Additive Manufacturing Lab. These include high-end mountain bike components, specialist tools for aircraft maintenance and bespoke electric guitars.



Minister Nicola Willis checked out the University's Formula SAE initiative during a visit to the Newmarket Innovation Precinct.
Photo: Chris Loufte

The Minister was particularly interested in the University's Formula SAE Team, an initiative where students build e-racing cars for competition, and the Centre for Advanced Materials Manufacturing and Design, home of high-tech materials for specialised industrial uses.

She also took part in an innovation round table, where representatives of companies founded on innovative technology developed at the University spoke about their journeys. Among them was Kitea Health, which has developed

the world's first implantable brain pressure sensor; Alimetry, which has commercialised a non-invasive device for gastric mapping and diagnosis; and Kara Technology – the first in the world to develop avatars that can translate sign language in real time.

"It's wonderful to see, and good to have an understanding of how the innovation ecosystem here works," said the Minister.

Full story: auckland.ac.nz/minister-newmarket-visit

RESEARCHERS WITH GLOBAL IMPACT

Our role in the fight against tobacco, the essentials for a good old age, and the power of teachers' high expectations were among the areas of world-leading research showcased at the University.

Six leading researchers presented their work at the annual Hikina kia Tutuki, Rise to the Challenge: Researchers with Global Impact event at the Fale Pasifika in early April.

Speaking at the event, Deputy Vice-Chancellor Research and Innovation Professor Frank Bloomfield said research was the University's lifeblood.

"It is what we do, is our passion and is where we choose to put our energies, our expertise, our skills, our time and our commitment. We do this because we believe in the power of research to improve lives and solve problems, whether that's through transmission of knowledge to our students or through impact on our community."

He congratulated researchers whose work has been recognised globally. The University has seven researchers in the 2024 Clarivate Highly Cited Researcher rankings, which identify the

top 1 percent of researchers worldwide. There are 289 University researchers who feature in the Stanford Elsevier list of the top 2 percent of researchers, an improvement of 64 on the previous year.

Now, with the purpose of universities under the microscope, it is crucial the University steadfastly pursues excellence and delivers impact: "We must remain even more active in communicating what we do," said Professor Bloomfield.

He cited evidence of that impact. Waipapa Taumata Rau, University of Auckland sits in the upper quartile globally for all measures of research quality. For Australia and New Zealand, the University ranked in the top five for all measures related to commercial outcomes from publicly funded research and was the leading institution in both countries for the number of spin-out companies supported from its research.


University academics published nearly 400 papers in journals regarded as in the top 1 percent of their fields last year. These include *Science*, *Nature* and *The Lancet* in 2024.

The researchers who presented their work at the event were: Professor Chris Bullen (FMHS), Dame Professor Juliet Gerrard (Science), Professor Ngaire Kerse (FMHS), Professor Julian Paton (FMHS), Professor Christine Rubie-Davies (Arts and Education), Dr Ziyun Wang (Science).

Their work is profiled at: stories.auckland.ac.nz/h-kina-kia-tutuki/



The European Union ambassador to New Zealand, His Excellency Lawrence Meredith, was keynote speaker at the Researchers with Global Impact event. Photo: Chris Loufte



Professor Mike Dragunow has been recognised for his lifetime contribution to researching brain disorders.

Photo: Chris Loufte

MIKE DRAGUNOW: BREAKTHROUGHS WITH THE BRAIN

Integrating AI with computer-based models is one of the latest means the neuropharmacologist is working on to stay at the leading edge of developing drugs for brain disorders.

When Professor Mike Dragunow jokes about using his latest academic medals as fishing weights, you get a glimpse of the irreverent boy from working-class South Dunedin.

In November, the neuropharmacologist won a Royal Society Te Apārangi Hercus Medal and a New Zealand Association of Scientists Marsden Medal, recognising his lifetime contribution to researching brain disorders.

But he's quick to share that recognition with colleagues: "It's not just about an individual – there's always a team," he says.

Mike is a proud son of South Dunedin, which he describes as "not Remuera", but a wonderful place to grow up.

He's also proud of the medals for the sake of his parents, who missed out on schooling during World War Two. A "devout socialist", Mike's mother Lena left Greece during a period of right-wing rule after the war, and his father, Genady, was a displaced person from Russia. After moving to New Zealand, they worked hard

in factories – Genady was a pattern maker and moulder, and Lena a seamstress.

Says Mike: "I'm very honoured by these medals, but mainly for my amazing and loving parents who committed so much for their kids."

He has gathered a long list of achievements since he joined the University of Auckland almost 35 years ago. He was awarded the New Zealand Association of Scientists' Research Medal in 1996, the American Academy of Periodontology's Clinical Research Award in 2020 and the Gluckman Medal in 2022. In 2000, he was elected as a Fellow of the Royal Society Te Apārangi.

During his career he has also received more than \$55 million in research grants, published more than 340 research articles and book chapters, and supervised 100-plus graduate students.

It has been a long academic journey for Mike, who spoke mainly Greek and Russian when he started primary school. He needed reading recovery support in intermediate school and

(proudly) scored 64 percent in School Certificate Russian compared with 62 percent in English. Also challenging, he recalls, was growing up in a socialist family during the Cold War.

He began university in 1978, studying psychology at the University of Otago. "I was actually interested in parapsychology. I used to read books about Tibetan occultism and things like Uri Geller, who could bend spoons with his mind. Most of it was completely bonkers," he laughs.

"I'm very honoured by these medals, but mainly for my amazing and loving parents who committed so much for their kids."

– Professor Mike Dragunow
Faculty of Medical and Health Sciences

He ultimately went in another direction, however, and completed his PhD at Otago on epilepsy neurochemistry in 1986. His first breakthrough was in epilepsy research, showing for the first time the critical role of a neuromodulator called adenosine in stopping seizures.

During postdoctoral research in Canada, he helped discover the importance of c-Fos, the first brain chemical found to be involved in modifying genes. The brain protein is also implicated in drug addiction and builds up following seizures. He went on to discover molecular pathways of neurodegeneration and repair in the brains of people with epilepsy, Alzheimer's and Parkinson's.

"I've been lucky because I've stumbled across things that turned out to be important," he says.

Today he's based at the University's Centre for Brain Research (CBR) and a short walk from three facilities he helped establish that play vital roles in advancing brain research.

He cites his greatest achievement so far as setting up the Hugh Green Biobank in 2011, supported by a "wonderful" \$13.8 million donation from the Hugh Green Foundation. At the biobank, Mike and his team pioneered methods of growing human brain cells derived from generously gifted tissue from autopsy and neurosurgical brain tissue donors. The laboratory-grown patient-derived brain cells are used to test new treatments for conditions such as Alzheimer's, Parkinson's, motor neuron, and Huntington's diseases, as well as epilepsy and brain cancers.

He's proud to champion and use only lab-grown human brain cells, which he says overcome many issues related to accuracy with animal trials and also reduce the use of animals in research.

While sharing images from brain-cell experiments, Mike lights up as he observes the beauty of pericytes – cells that line all the blood vessels in the brain and help form the blood-brain barrier.

"We were growing pericytes without knowing what they were. No one had studied them much, but we started studying them because we were growing them," he explains.

"More than half of our work now is on pericytes, in the hope drugs might work on them to improve the health of blood vessels and improve blood flow in the brain."

People with Alzheimer's experience a significant reduction in the effectiveness of their blood-brain barrier and blood vessels. The blood-brain barrier is also less robust in people with motor neuron disease and concussion.

Mike also established CBR's tissue screening facility and played a key role, in 2019, in launching the Freemasons Neurosurgery Research Unit

at CBR, which brings together clinicians from Auckland City Hospital and scientists from the University to promote neurosurgery research.

Mike worked part-time with NeuronZ and Neuren Pharmaceuticals for nine years, and he co-founded NeuroValida, a platform run through UniServices that validates drug targets for biopharmaceutical companies. From 2000 to 2008, he was involved, as part of a team, in the early stages of discovering trofinetide, which was later approved by the US Food and Drug Administration as the first effective treatment for Rett syndrome, a terrible brain disorder affecting young women.

In recent years, AI has emerged as an exciting new tool to speed up the process of developing drugs for brain disorders, says Mike.

"The whole picture is more complicated than we will ever know, but we've got to start somewhere."

– Professor Mike Dragunow

He is currently collaborating with molecular pharmacologists and AI experts in the hunt for a drug that will reduce inflammation in the brain that can be caused by substances secreted from pericytes.

"What we're trying to do is to integrate AI with established in silico [computer-based] methods in pharmacology to speed up the discovery and development of effective and safer drugs for brain disorders and cancers.

"This work is currently aimed at brain inflammation, but ultimately the AI-driven pipeline we develop could be applied to the

discovery of drugs acting on any target that we identify in a diseased human brain.

"The goal is to make them into totally new medicines, by bringing new chemistry into the area of brain inflammation and other areas."

Mike is also trying to find drugs to regulate microglia. These brain cells usually 'eat' bacteria or foreign substances, but they might start to break down connections in the brains of people with Alzheimer's disease.

For the past decade, he has also spent a considerable time researching brain cancers.

"They're devastating things. A person is diagnosed with brain cancer and, often within a year or two, they've died.

"We're looking at what's different about microglia and pericytes in the brain of someone with a tumour and working with the Auckland Cancer Society Research Centre to directly target brain cancers. They are also starting to apply *in silico* methods to discovering new drugs to treat brain cancers.

"The whole picture is more complicated than we will ever know, but we've got to start somewhere."

When he's not absorbed with the inner workings of the brain, Mike loves spending time with his wife, clinical psychologist and meditation teacher Sue Dykes, and their grown-up twins, software engineer Nick and teacher Lydia. A whippet called Roo and three cats complete the family circle.

Last year Mike hit the 65-year milestone, but he has no plans to retire.

"The goal is to come up with drugs to help people suffering with brain disorders and cancers and show that this patient-centred approach works," he says.

"I'm the most excited I've ever been about what we're trying to do. I'm hoping to be part of something useful to people."

■ Rose Davis



Mike, pictured with his twin children, Nick and Lydia, and wife Sue.



Jay Kuethe with the rediscovered *Passiflora clypeophylla* in Guatemala.

JAY KUETHE: EXPLORATION ECOLOGIST

A passion to document every known passionfruit species has taken the University of Auckland scientist to some of the world's most remote – and dangerous – places.

In 1889, John Donnell Smith, a botanist and former US Confederate soldier, located a rare passionfruit species, *Passiflora clypeophylla*, in a remote, densely forested canyon in the Verapaz region of Guatemala.

No one ever reported another sighting and the species was eventually deemed extinct.

But 135 years after Smith's expedition, University of Auckland scientist Jay Kuethe and his team negotiated the treacherous, slippery, narrow trail leading down into the canyon.

Suddenly, joy – they spied a butterfly known to lay eggs on this type of passionfruit.

"That's when we knew we were going to make an amazing rediscovery," says Jay.

A passion project

Jay is working on a monumental project, chronicling every species of passionfruit (*Passiflora*) in the world for a monograph – the term for a publication covering a discrete topic in

great detail. So far, he's at 704.

The plants most difficult to discover – or rediscover – hide in remote locations infrequently visited by botanists because of hazardous terrain, warfare, banditry, civil unrest or Indigenous tribes wary of interlopers.

During an expedition by boat in remote Venezuela in 2011, his local collaborator saw an object hanging from a tree in the distance and said it was time to leave; the dangling human head signalled a blunder into tribal territory. Alongside his botanical knowledge, diplomacy and survival skills come in handy for his expeditions – and a keen sense for when it's time to skedaddle.

Unrest in Bolivia, attracting gunshots in Papua New Guinea, venturing into drug cartel territory in Mexico, an expedition member detained in Guatemala – he can certainly recount some adventures. If it all sounds like scientific colonialism or 'parachute science', where foreign

researchers zip in and out pursuing only their own ends, Jay insists this isn't the case.

"None of these expeditions, none of these successes, would have been remotely possible if it wasn't for extensive collaboration with the Indigenous people."

Local engagement

Jay describes himself as an 'exploration ecologist', and field work is his joy.

Besides his devotion to botany, another of his key scientific interests is geomorphology, the evolution of landscapes. Studying at the University, he pursued both interests simultaneously.

On the one hand, he investigated the volcanology and eruption risks of Tūhua (Mayor Island) off the Bay of Plenty coast for a PhD in earth sciences in the School of Environment. The volcano has erupted many times – most recently only a few thousand years ago.

On the other, he was skipping off to far-flung passionfruit-growing destinations and publishing a stream of papers on previously unreported *Passiflora* species. Living in New Zealand facilitated expeditions to places like Papua New Guinea, Australia, Sāmoa, Fiji and Niue.

“New Zealand provided a unique base to study Pacific biodiversity that was far out of reach when I was based in the UK or Europe,” says Jay, who grew up on a farm in the UK.

To succeed where four previous expeditions had failed, the Guatemala expedition required two years of planning, an awareness of land disputes, and the endorsement of the local Mayan people, the Q’eqchi’ Maya, he says.

A Guatemalan biodiversity ranger with roots in the Q’eqchi’ culture negotiated access normally forbidden to extranjeros (foreigners). Once rediscovered, samples of *Passiflora clypeophylla* were delivered to the National Botanical Garden hosted by San Carlos University of Guatemala to be cultivated and preserved.

(The decayed specimen collected by John Donnell Smith and stored at the Herbarium at the Royal Botanic Gardens Kew in London, pictured below right, had a sole surviving leaf and was of limited botanical use.)

While mountaineering, navigation and four-wheel-drive skills have all been essential for Jay, the soft skills he’s developed over time related to Indigenous engagement, raising awareness with local communities, and stakeholder management are crucial, he says.

“An example of that would be the importance of publications in journals being co-authored with local people,” he says. “Highlighting their role in the research helps them in their funding campaigns, as well as building trust and

long-lasting friendships that continue long after the expedition is finished.”

Working with local universities to give their students practical field experience can help in generating ‘in-kind funding’, such as the use of four-wheel-drives, boats or even helicopter rides. “It’s like a circular economy, giving one benefit that leads to another.”

Tools like WhatsApp and iNaturalist are critical for maintaining these networks.

“I expect my expeditions to get more and more extreme from here.”

– Jay Kuethe,
Faculty of Science

An obsession is born

Most passionfruit species are found in Central or South America. The name references the Passion of Christ, after Brazilian missionaries cast the distinctive structure of its flower as symbolic of the story of the crucifixion of Jesus Christ, with particular parts representing elements such the crown of thorns and the apostles.

Passionfruits are usually borne on creeping vines but sometimes on shrubs or trees. The fruits’ leathery skins enclose a fragrant, seed-filled pulp that is, unfortunately, usually inedible. New Zealand’s sole native passionfruit, *Passiflora tetrandra* or kōhia, is a forest vine beloved by native birds for its small orange fruit. Māori used oil from the seeds as a medicinal salve and trunk stems as binding materials.

Jay grew plants from an early age and, raised in a family interested in botany and science, he also collected samples of seeds, crystals and minerals. When, as a teenager, he became especially interested in passionfruit, no one could tell him how many species existed.

“There’s always one big question: how many species are there?” he told *New Zealand Geographic*. “When can you consider your collection complete? And what really fascinated me was that there was no answer to that. No one had a clue.”

An obsession was born and, aged only about 19, he travelled to Miami to the annual meeting of the *Passiflora* Society International. His first expeditions were entirely self-funded, although 16 years later they are now partially funded by institutions or universities.

Jay remains connected to the University of Auckland as he completes the last stages of his PhD process and writes related research papers in the School of Environment. He also works as a senior environmental science officer for the Gisborne District Council.

So where will his passion for passionfruit send him next? Guyana, Cuba and New Caledonia are on his list.

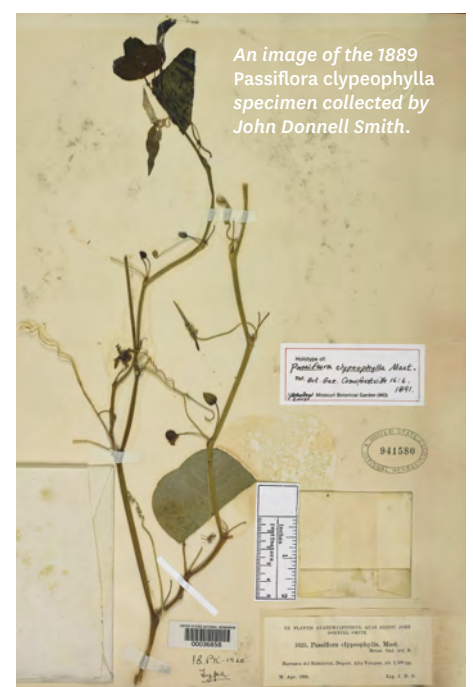
“Ironically, it’s the rediscoveries that are often much harder than the discoveries; there are so many new and undescribed species out there,” he says.

“Often there’s a reason why a species needs to be rediscovered, a barrier that needs to be overcome. So, I expect my expeditions to get more and more extreme from here. The easy ones have been done; now it’s time for the challenging species.”

■ Paul Panckhurst



The Guatemala expedition required extensive engagement with local communities.



An image of the 1889 *Passiflora clypeophylla* specimen collected by John Donnell Smith.



Tamar Torrance will be monitoring the brain and body responses of people as they view artworks as part of her PhD research.

Photo: William Chea

Participants also answer questions on their responses to works such as Henry Fuseli's 'Study for the Three Witches in Macbeth' (circa 1783), etchings by Francisco Goya, and Tony Fomison's painting 'Skull Face' (1970).

'Neuroaesthetics' is an emerging field, with the term coined as recently as 1999. Pioneers like Semir Zeki, Anjan Chatterjee and Edward Vessel are leading the way, and books like *Your Brain on Art* by Susan Magsamen and Ivy Ross are spreading the word.

Tamar's research aims to map the neural networks that contribute to aesthetic experience, detailing how various brain regions and systems interact. She's also focused on the interplay between brain and body.

"Although occurring beneath the level of awareness, our bodily reactions shape how we emotionally and cognitively process art – and inversely, how art physically affects us," she says. "Whether participants are calm, relaxed, excited or tense will show up in the timing of their heartbeats, while changes in skin conductance caused by sweat will reflect their emotional arousal."

The arts and aesthetic experiences support mental and physical healing, enhance learning, and inspire personal and collective growth, she says. By understanding how the brain and body

"When we engage with art we are, in a very real sense, altered in body and mind."

– Tamar Torrance, Faculty of Science

PERCEPTION AND EXPERIENCE

A new study in the emerging field of 'neuroaesthetics' is exploring how we respond when viewing art.

Ever wondered what happens inside your brain and body when you look at art? Scientists at the University are on a mission to find out.

They're studying how people react to artworks in Auckland Art Gallery Toi o Tāmaki's collection and in its exhibition *Gothic Returns: Fuseli to Fomison*.

Participants are viewing the artworks in three different ways: on a computer screen, in person at the gallery, and through a virtual reality headset. The goal? To uncover how art affects our minds and bodies in different settings.

"When we engage with art we are, in a very real sense, altered in body and mind," says

PhD student Tamar Torrance. "Understanding exactly what happens can help us to harness the benefits of art in education and therapy."

Tamar is measuring research participants' brain activity, via electrodes on the scalp, during 60-second viewings of each artwork. She is working under the guidance of psychology Professor Paul Corballis, art historian Professor Gregory Minissale, and Centre for Arts and Social Transformation research fellow Dr Ying Wang.

Heart rate variability (HRV) and galvanic skin response (or GSR, the change in skin conductivity caused by sweat), are recorded as indicators of emotional response.

respond, arts-based interventions can be more effectively tailored, and the arts could take a more central role in clinical settings.

For Tamar, a childhood love of creating art grew into a passion for understanding how art works on us. Seeing Salvador Dali's 'Exploding Raphaelesque Head' at the Auckland Art Gallery during her school years helped spark her interest.

The study takes place over 18 months, with sessions held about six months apart. Each session will last around two hours, and will use electroencephalography (EEG) and electrocardiogram (ECG) equipment.

"The real world changes how we experience art," says Tamar. "It's not just about the image; it's about the size, texture, and presence of the artwork, the space, the light and the museum context. All of these elements shape our perception and experience."

■ Paul Panckhurst



Clockwise from top left: Brian Gartside. *Untitled (patterned ceramic plate)*. 1972–1976. Ceramic; Peter Smith. *Sandspit*. 1980. Watercolour on paper. (Both from the Faculty of Education Collection, University of Auckland Art Collection); Art Education, n.d. Number 368, Auckland College of Education Photographs. University of Auckland Archives.

ART EDUCATION CELEBRATED

Connections between some of our most-celebrated artists and the education community are the focus of an exhibition now on at the General Library.

The post-World War Two decades from the 1940s to the 1980s were a time when arts education particularly flourished in New Zealand classrooms, with children's natural creativity embraced as an important vehicle of learning. It's perhaps unsurprising then that some of our best-known artists were educated during this period.

Adding to the interwoven story of art and education in Aotearoa is that many of our artists were also teachers and tutors at some time in their artistic careers.

These connections are the focus of *Hands-on*, the current exhibition by He Māra Mahara, Cultural Collections. Curated by University art collection adviser Madeleine Gifford and archivist Katherine Pawley, the exhibition delves into the history of the Faculty of Education Collection as a distinct branch of the University of Auckland Art Collection.

The origins of the faculty's collection lie in the studios and lecture halls of the former Auckland College of Education's Epsom Campus. Many of the 200 artworks that make up the collection were made by artists who studied or worked there. The collection also has a strong physical connection to the campus, as it includes several works that were specifically commissioned for the site.

A small but important part of the collection is its group of 26 ceramic pieces, acquired during the 1960s and 70s and including objects made

by some of New Zealand's most-influential potters and ceramic artists – including Barry Brickell, Len Castle and Brian Gartside. These show how the wheels and kilns at the Epsom Campus studios played a fundamental role in the experimental local ceramic movement during the mid-twentieth century.

Several of these ceramic pieces are displayed in *Hands-on* and further demonstrate the influence of the teaching and environment at Epsom on a significant number of artists.

Artist Barry Brickell, for example, was taught by influential ceramicist Len Castle at Takapuna Grammar School. Castle had trained as a science teacher at Epsom and would later return as a lecturer; Brickell, who built his first kiln in the backyard of his parents' home while he was still at school, also trained as a teacher at Epsom.

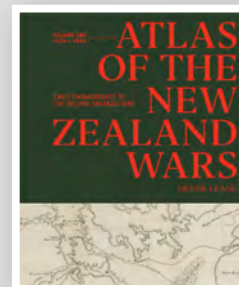
Showcasing material from across the collections held by He Māra Mahara, *Hands-on* interweaves these artistic and educational histories.

It features notable artworks by influential artist-educators like Peter Smith, Max McLellan and Charlotte Graham. These are shown alongside archival and published material, including letters, exhibition catalogues, photographs, student magazines, and teaching resources developed by the Education Department's influential Art and Crafts Specialist Service.

You can view *Hands-on* until 16 July in He Māra Mahara, Level M, Te Herenga Mātauranga Whānui, General Library, 11am–4.30pm, Monday to Friday.

■ Madeleine Gifford and Katherine Pawley

ARTS AND BOOKS



Atlas of the New Zealand Wars: Volume One 1834–1864

Based on 30 years of research, *Atlas of the New Zealand Wars* provides insights into the deep

conflicts in 19th century New Zealand through the exploration of maps and plans. This volume covers early engagement through the second Taranaki War, with readers meeting key characters along the way – from Hōne Heke and FitzRoy to Te Rangitāke and Pratt.

Derek Leask, Auckland University Press, \$90



Cities and Digital Platforms

Senior lecturer in urban planning Elham Bahmanteymouri looks at the impact of digital platforms, such as Airbnb and Zoom, on our cities. The book explores the dual roles of

digital platforms as disruptors and catalysts for urban transformation, and includes case studies from cities including Amsterdam, Auckland, Sydney and Singapore.

Elham Bahmanteymouri, Routledge, paperback \$94



Tikanga Māori and State Law

Structured in three parts, this book explores the tikanga Māori legal system, its relationship with the state legal system, and collisions between the two systems.

Written by Jayden

Houghton (Rereahu Maniapoto), a senior lecturer and assistant dean (teaching and learning) at Auckland Law School, the book aims to help the teaching and learning of tikanga Māori in law schools, as well as in-house in courts and firms.

Jayden Houghton, Thomson Reuters, \$210

INSIDE THE ART STORE

In the quiet depths of a building on the City Campus, at the end of a corridor bookended by secure double doors, is a space dedicated to rest.

And what rests here is art.

Last year, for the first time, a dedicated storage space was created for works from the University of Auckland Art Collection. The art store is a place where works can be 'rested', whether for digitising, condition recording, storage while being moved, or simply a break from display.

The collection is incredibly hard working, explains the University's art collection adviser, Madeleine Gifford. At any time, around 90 percent of its more than 2,000 items are on display. It's a situation that's the reverse of most traditional institutions, like public art galleries, where the majority of works are in storage at any time. Additionally, the University's works hang in 'everyday' spaces – from faculty reception areas to offices and lunchrooms – exposed to passersby and varying light and temperature conditions, rather than the rarified conditions of a conventional gallery.

An important feature of the art store, says Madeleine, is it has ample space, particularly to move works in and out. Some of the works, particularly sculptures, are huge, and tables on wheels allow working areas to flex and contract as required.



Art adviser Madeleine Gifford and Cultural Collections team leader Jacob Powell, with Louise Henderson's work *Cubist Portrait of a Woman (1964)*.
Photos: Chris Loufte

Another dominant feature is a series of more than 20 large racks that line the store's back wall, which allow the works to be elevated and stored in a way that aligns with best practice. Fitted on runners, the racks can be moved by wheels, allowing ready access to the works and making it easier to curate them for various purposes and spaces around campus.

Racks also line much of the perimeter walls, offering more space to hang and view works – especially useful, says Madeleine, when hosting visiting artists, curators and student groups.

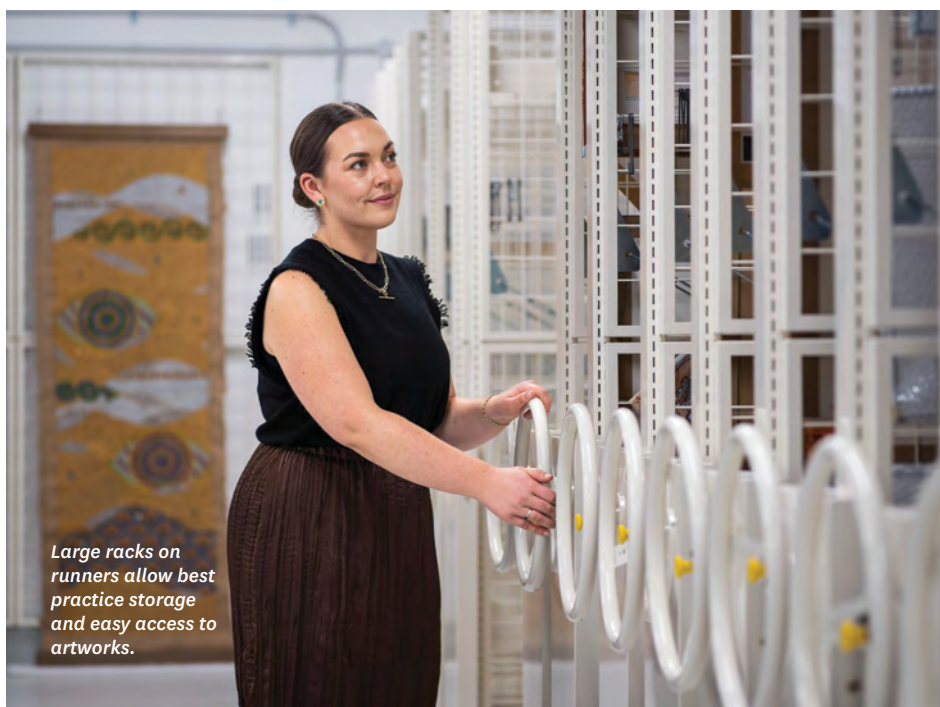
Previously, artworks were kept in a much smaller, non-purpose-built room at the General Library and across various other vacant spaces,

explains Cultural Collections team leader Jacob Powell. Having them all in one space is much more efficient, he says, and allows conditions to be more controlled. Works are away from damaging sunlight, and lights on sensors allow them to dwell in darkness for much of the time.

"With this space, the works are able to be better cared for in a more art-friendly environment," says Jacob. "When works have been out in the 'wild' for a while, we can bring them in here, and they can literally rest in a stable, dark environment away from the hustle and bustle of campus."

■ Caitlin Sykes

artcollection.auckland.ac.nz/



Large racks on runners allow best practice storage and easy access to artworks.



About ten percent of the University's art collection is in storage at any time.