THE RIPPLE EFFECT
More than the genes
A NEW WAY TO SEE THE WORLD
BLOCKCHAIN FOR BEGINNERS
IN THIS ISSUE

<table>
<thead>
<tr>
<th>University news</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEATURES</td>
<td></td>
</tr>
<tr>
<td>Inheritance: It’s about more than genes</td>
<td>7</td>
</tr>
<tr>
<td>Seeing the world in a new and vivid way</td>
<td>12</td>
</tr>
<tr>
<td>The times they are a-changin’</td>
<td>16</td>
</tr>
<tr>
<td>Blockchain for beginners</td>
<td>18</td>
</tr>
<tr>
<td>Tour to explore unconventional dreams</td>
<td>22</td>
</tr>
<tr>
<td>Back on campus with a camera crew</td>
<td>24</td>
</tr>
<tr>
<td>A hundred years on</td>
<td>27</td>
</tr>
<tr>
<td>Our Distinguished Alumni</td>
<td>28</td>
</tr>
<tr>
<td>Making history at the United Nations</td>
<td>30</td>
</tr>
<tr>
<td>The medical school: 50th anniversary</td>
<td>32</td>
</tr>
<tr>
<td>REGULAR SECTIONS</td>
<td></td>
</tr>
<tr>
<td>Opinion</td>
<td>11</td>
</tr>
<tr>
<td>Taking issue</td>
<td>14</td>
</tr>
<tr>
<td>Research in brief</td>
<td>20</td>
</tr>
<tr>
<td>Alumni networks</td>
<td>34</td>
</tr>
<tr>
<td>Books</td>
<td>36</td>
</tr>
<tr>
<td>Poem by an alumna</td>
<td>39</td>
</tr>
</tbody>
</table>

**Ingenio website**

Check out our website [www.ingenio-magazine.com](http://www.ingenio-magazine.com)

If you’re as happy to read Ingenio online as in print, we’ll stop sending you the magazine and instead you’ll receive an email each time the website is refreshed with the latest Ingenio content. You can search articles, browse by topic, view videos and leave comments on the Ingenio website.
One of the defining characteristics of successful contemporary universities is the strength and depth of our international connectedness. The value of strategic partnerships with peer universities world-wide can be observed through research collaborations, staff and student exchanges, joint teaching programmes and sharing of best practice. Transnational academic collegiality is what we are about.

Most importantly, in order to achieve and sustain this, we work at building, maintaining and enhancing networks of enduring relationships with our academic colleagues at overseas institutions. For example, the University of Auckland is an active member of three significant international university networks – Universitas 21 (U21), Association of Pacific Rim Universities (APRU), and Worldwide University Network (WUN). U21, the oldest of all global university networks, this year celebrates 21 years of activity.

Auckland also has bilateral relationships with universities and institutions across the globe. Of particular interest at the moment is the relationship we have with China. Over the past 20 years we have engaged intensively with leading Chinese institutions. In 2007 we strengthened our links with Peking University (PKU), one of China’s oldest higher education institutions, when we launched the New Zealand Centre at PKU’s campus in Beijing. All New Zealand universities are now participating members of this centre.

In May this year PKU marked its 120th anniversary. The University of Auckland was invited to join with more than 200 of the world’s top universities to celebrate the occasion, alongside Chinese universities, officials and PKU alumni. I represented our Vice-Chancellor at the celebrations.

The fact that university representatives from 44 countries travelled to Beijing to mark this occasion is testimony to PKU’s status within the world’s higher education sector. It is also recognition of where China’s higher education is destined to rank in the near future. What will be interesting to watch as China’s universities become even more globally successful is how they develop to be what President Xi Jinping calls “world-class universities with Chinese characteristics”.

Universities in China and New Zealand, as elsewhere, operate within the constraints and contexts of their local and national political frameworks. This may impose limitations; it may – and does – also offer opportunities. The internationalisation of tertiary education is an important element of the national economic and social policies of many countries. This is very much the case for us in New Zealand where, for instance, a consortium of four New Zealand universities has recently launched three Centres for Asia-Pacific Excellence (CAPEs). Auckland hosts the North Asia CAPE.

The underlying purpose of these centres is to strengthen the ability of New Zealanders to undertake business in these neighbouring regions through building knowledge and cultural understanding. This means taking a realistic approach to the context of contemporary geopolitics. There are some today who regard China with a degree of caution, even alarm. But whatever political concerns we may have with any given country, these need not predominate in our academic relationships. This is where the strength of long-standing partnerships and collaborations comes to the fore. International partnerships work with and through the realities of political contexts; this is the real world in which we must operate. The almost giddying rate of change and investment within and across the global higher education landscape only serves to sharpen the need for solid and enduring relationships with our overseas partners.

Professor Jenny Dixon
Deputy Vice-Chancellor (Strategic Engagement)

Above: Jenny Dixon, photographed at the University’s Distinguished Alumni Dinner on 9 March.
LETTER AND NEWS

HIGH HONOURS FOR YOUNG ALUMNUS

Luke Thompson, the University’s Young Distinguished Alumnus of the Year for 2018, has won the £30,000 Deutsche Börse Photography Foundation Prize at London’s Photographers’ Gallery for his installation “Autoportrait 2017”.

For the same installation he has also been nominated for the Turner Prize, one of the most important art awards in the world.

Established in the UK in 1984, this prize, judged by an independent panel, is worth £25,000 to the winning artist.

Each year four artists are nominated, who are British or predominantly working in the UK.

Luke is the first artist from the Pacific region to be nominated since Boyd Webb in 1988.

“Autoportrait 2017” is an installation featuring a 35mm silent black and white film. The work is the result of a long collaboration with Diamond Reynolds, who famously livestreamed the aftermath of her fiancé, Philando Castile, being shot dead by a Minnesotan police officer after the car they were travelling in was pulled over.

Her clip has been viewed by millions around the world and has given additional social and political attention to the ongoing crisis in police enforcement in the United States.

Associate Professor Peter Shand, head of Elam School of Fine Arts at the University of Auckland, describes the nominated work as “astonishing, beautiful, courageous and passionate”.

“Luke’s mode of working is anchored by a strong sense of ethical commitment and responsibility, which is a critical feature of this challenging, nuanced project. It is a work that affects its audiences deeply even though it is very simply composed. This, I believe, arises from Luke’s extraordinary talent and recognises that really great art always hovers slightly beyond our reach to understand it fully; it demands more of us than full and finite declaration.”

The four nominated artists are included in an exhibition, which this year will be at Tate Britain in London. The winner will be announced on 4 December.

LETTER TO THE EDITOR

Carrot to tempt reluctant voters

An alumnus offers a novel suggestion in response to “Taking issue” in the last issue of Ingenio: Should voting be compulsory in New Zealand?

Dear Editor,

Instead of the stick of compulsory voting (costly to administer), why not a carrot? Presuming a couple of million $ (say) is spent on urging people to vote, why not make an offer that 20 people who vote will each win $100,000, the odds being the same whether you live in Karori or Kaitaia?

Similarly, millions are spent urging people to enrol. Either offer everyone who enrols a (say) $20 lotto ticket or, as above, some big cash prizes drawn from those who enrol during a given time.

It would be interesting to see how effective these schemes would be. Can’t be more inefficient than current system.

Roger Hall

CREATIVITY UNLEASHED

At the official opening of the University’s unique new “Unleash Space”, Prime Minister Jacinda Ardern issued a friendly challenge to students to use the creative hub not only to unleash economic potential but to generate solutions to problems such as climate change, child poverty and inequality.

“My challenge to you is this,” said the Prime Minister, as she switched on a light sculpture of the Unleash logo formed of rods inserted by guests. “Just as an entrepreneurial mind can embody Kiwi values, so can what you do with that mind.”

The creative hub, including a state-of-the-art maker-space for turning ideas into real things, is student-led but supported by the Centre for Innovation and Entrepreneurship.

Ahead of the launch, nearly 600 students had already signed up as members and been trained on the maker-space equipment, which includes 3D printers, laser cutters, electronics, sewing machines and other tools. Open to all staff and students, the space can also host events, workshops and meetings.
In a career of exceptional achievement, Distinguished Professor Margaret Brimble (CNZM) has achieved yet another first. She has become the only New Zealand-based woman scientist elected as a Fellow of the Royal Society of London, and joins just 42 other New Zealanders elected to its ranks.

A true daughter of Auckland, Margaret was born and raised here, attended the University of Auckland and has done almost all her research in New Zealand. As a young woman, she was encouraged to consider a career in medicine but the horror of being asked to dissect a rat in biology class steered her towards science research.

Her work sits at the interface of chemistry and medicine and focuses on developing bioactive compounds from natural products such as marine algae or fungi. These compounds are synthesised in larger amounts for further research and development as potential drugs to treat a range of diseases including cancer and infectious disease.

Her pioneering research in drug discovery in New Zealand includes development of a new treatment for Rett Syndrome, Fragile X Syndrome and autism disorders. The drug, called Trofinetide, is in phase III human clinical trials with Neuren Pharmaceuticals. It will be the first drug to be developed successfully by a New Zealand company and one of only a few to be discovered in an academic laboratory.

Margaret’s research group is also developing innovative chemical technology to generate cancer vaccines. This work is being translated for clinical use by the spin-out company SapVax, which is developing a pipeline of products for the treatment of different cancers.

She is a Fellow of the Royal Society of London, the NZ Royal Society Te Apārangi, the Royal Australian Chemical Institute and the New Zealand Institute of Chemistry, and has received numerous national and international awards.

The Royal Society of London
What’s it all about?

Founded in the early 1600s, the Royal Society of London is the oldest national scientific institution in the world, receiving its royal charter under the patronage of Charles II in 1662.

Among its exemplars were Isaac Newton, Samuel Pepys, Benjamin Franklin, Albert Einstein, Charles Darwin, Ernest Rutherford, Paul Callaghan and Stephen Hawking.

While there was no explicit prohibition of women in its original charters and statutes, for much of the society’s history fellowship was closed to women.

In 1900, Marian Farquharson, the first New Zealand-born woman to become a Fellow of the Royal Microscopical Society, petitioned the Royal Society for “duly qualified women (to) have the advantage of full fellowship”. In its reply, the Council stated that the question of women Fellows “must depend on the interpretation to be placed upon the royal charters under which the Society has been governed for more than 300 years”.

But it wasn’t until March 1945 that the first female Fellows – British biochemist Marjory Stephenson and Irish crystallographer Kathleen Lonsdale – were elected. This followed a statutory amendment in 1944 that declared: “Nothing herein contained shall render women ineligible as candidates.”

The first New Zealand-born woman to be elected as a Fellow of the Royal Society of London was Jan M Anderson (1932–2015), who was born and educated in New Zealand but spent the majority of her research and working life in Canberra, Australia, and was distinguished by her investigation of photosynthesis.

Today, the society’s core members are its Fellows – men and women: scientists and engineers from the United Kingdom and the Commonwealth selected because of the “substantial contribution [they have made] to the improvement of natural knowledge, including mathematics, engineering science and medical science”.

Under ongoing royal patronage, the society fulfils a number of roles: promoting science and its benefits, recognising excellence in science, supporting outstanding science, providing scientific advice for policy, fostering international and global co-operation, education and public engagement.

The society’s motto Nullis in verba – Take nobody’s word for it, signals the ongoing determination of its Fellows to establish facts via experiments.
A collection to be proud of

The University has a remarkable art collection. Outgoing curator Linda Tyler looks back on its life so far.

The collection was inaugurated in 1965 with an annual acquisition budget of just £300. Since then it has grown into a major asset with a total value of more than $20 million.

All of its 1,150 artworks (including major works by Frances Hodgkins, Colin McCahon, Ralph Hotere, Pat Hanly, Robin White and John Pule) are on constant display around the campuses.

It has recently been shortlisted, along with Boston University, for an international award for institutional art collections.

The budget increased to $1000 in 1968, and poet Wystan Curnow and art historian Michael Dunn (both now emeritus professors) joined the purchasing committee in the 1970s and bought major koru paintings by Gordon Walters. Warwick Nicholl, who was Registrar at that time, determined that one-half percent of the budget for capital works be spent on commissioning artists to create works for the new buildings for Arts, Medicine and Architecture.

In 1983, the first photograph, a Whanganui River image by Anne Noble, was added to the collection. Professor of Fine Arts Michael Dunn was appointed the sole curator. When the University expanded onto its Tamaki Campus in 1992, a budget to commission sculpture was included, and Associate Professor Peter Simpson from the English Department built a discrete collection of art works for Tamaki from 1996 until 1999.

All seven collections – the Library art works (acquired through revenue from Library fines), the Elam archive (mostly gifted), the Epsom art, the Staff Common Room collection (bought from profit on liquor sales), the Tamaki collection, the Mā ori collection and the Fale Pasifika collection – were amalgamated in 2004 under an Art Collection Committee when Professor John Hood was Vice-Chancellor, and the budget trebled.

When Michael Dunn retired in 2005, Associate Professor Linda Tyler took over responsibility for the collection. This has now passed to the University Library, which will continue to build and maintain it as a collection that reflects significant developments in New Zealand art.

Back in the sixties, the University campus had various building projects underway, and the Vice-Chancellor, Sir Kenneth Maidment, had been successfully lobbied by Professors Keith Sinclair and Bob Chapman – a historian and political scientist respectively – to include art in the new structures. Joined by Dr Michael Joseph from the English Department, they became the “purchasing committee”, buying 10 art works in that first year.

Two Titirangi drawings by Colin McCahon, bought from the newly opened Barry Lett Galleries for £25, were the first works acquired. Colin McCahon taught at the Elam School of Fine Arts from 1964 until 1970, and his paintings during this period were almost exclusively black and white, deploying white writing like chalk on a blackboard.

A n ambitious and wide-ranging TV series called Artefacts is showing every Monday on Māori Television, hosted by the University’s Distinguished Professor Dame Anne Salmond from the Faculty of Arts.

If you’re lucky you’ll still have time to catch one or two of the six episodes, showing at 8.30pm on Mondays until 11 June.

Each episode features different artefacts or taonga, both famous and obscure, with Dame Anne using the objects to explore stories of New Zealand’s culture and how those stories have shaped our country.

One episode centres on a hoe (paddle) given by East Coast Mā ori to the crew of Cook’s Endeavour in 1769, marking the first peaceful encounter between Mā ori and European.

Another explores the political potency of clothing. Titled “Threads that bind”, the episode features a black and white dress, printed with traditional motifs, that was worn by New Zealand’s first Mā ori woman cabinet minister, Whetu Tirikatene-Sullivan.

Dame Anne and the crew from Auckland production company Greenstone TV travelled to New York, London and Europe during filming for the series, with local support also provided by a number of University staff in research or onscreen capacities.

Scenes were filmed at Grafton Campus, Waipapa Marae and Tu Tahi Tonu Marae at Epsom Campus.

Photo: © 2017 Greenstone TV Ltd
IT'S ABOUT MORE THAN GENES

Epigenetics has been hailed as the missing link between genes and environment.

The growing knowledge of how experiences get written onto our DNA, influencing development and disease, opens new avenues for personalised medicine.

More broadly, evidence from animals that epigenetic marks can be inherited is challenging the standard view of evolution and fomenting a radical rethink of social disadvantage that crosses generations.

BEYOND DNA
THE POST-GENOMIC AGE

Last year, researchers from the University’s Liggins Institute and the Faculty of Medical and Health Sciences made headlines with the discovery of a potential blood marker for premature birth.

“This is exciting, as it could enable the targeting of therapies to delay or even prevent preterm birth,” said Professor Mark Vickers from the Liggins Institute, who co-led the research.

A pilot study had identified a unique molecular fingerprint in blood taken from women at 20 weeks of pregnancy who all went on to have their babies early (the fingerprint was not found in the blood of women who went to term). The team is now testing a bigger pool of samples.

The fingerprint found in the women who gave birth early was derived from micro-RNA (miRNA) analysis. MiRNAs are small, non-coding RNA molecules that influence the action of genes. They are part of the machinery of epigenetics – the way experience switches genes on and off.

Different miRNAs have been implicated in the development of – and protection from – a slew of diseases, including osteoporosis, Parkinson’s disease and certain cancers.

Scientists believe miRNAs are affected by environmental influences. Details are still unclear but knowledge is advancing, as you will discover in the following pages.
Epigeneatics’ roots go back at least to the 1930s, but it has re-emerged recently as one of the hottest fields in the life sciences, sending waves through the social sciences. Its boldest proponents say it demolishes the line between nature and nurture, revolutionising genetic identity and inheritance. Others are more cautious, arguing the hype has outpaced the evidence.

Dr Tatjana Buklijas, a trained physician and historian of science at the University’s Liggins Institute, has a Marsden grant to write a history of epigenetics.

“For all the excitement and publicity, there is no consensus on the scope, significance or even the definition of epigenetics,” she says. “But it is at least clear that genes are only part of the puzzle.

“The Human Genome was published in 2003. Through the eighties and nineties, people believed that once the genetic sequence was known we’d have all the answers to development and disease. But we don’t. We are not our genotypes, we are our phenotypes – what we come to be via our development in the world.”

In this “post-genomic age”, scientists are coming to understand how extra physical information layered on top of DNA in response to certain experiences can change how that code is read by cells – how your genes function in real time to create and recreate you. Dubbed the “epigenetic code”, it is composed of epigenetic markers – traces left by experience, molecular memories overwritten onto our DNA (see Molecular Memory box, page 10).

There are also other layers of information at play – one involves the way the DNA strand is folded tightly into the cell nucleus, bringing far-flung regions into contact and altering the functioning of genes; yet another involves the mysterious interactions between your genome and microbiome – the trillions of bacteria that live on and in you. Both are areas of intense study at the Institute.

“We are a walking talking ecosystem,” says associate professor, Dr Justin O’Sullivan. But that’s another story.

Nature and nurture: the interface
In the 1980s, English epidemiologist David Barker noticed something curious in disease and mortality maps of England.

Areas with high infant mortality and very low birth weight in the 1910s and 1920s were the same areas showing high death rates from heart disease 60 to 70 years later.

“Back then,” says Tatjana Buklijas, “heart disease was believed to be linked with an overly-rich Western lifestyle. Barker showed it was also linked with babies being born small.”

He realised that chronic, so-called “lifestyle” illnesses, such as heart disease, cancers and diabetes, arise not always from “bad” genes and unhealthy adult lifestyle, but from our earliest environments – in the womb and during infancy. Once controversial but now mainstream, this insight lies at the heart of a field called the developmental origins of health and disease.

Epigenetic processes are thought to underlie the many links that have since been identified between experiences during development, and health and disease in adult life. The Liggins Institute has a strong record of research in this area.

Very prominent in this field is its founding director Sir Peter Gluckman, who retains research links with the institute. The multifaceted view of obesity he advances is informed by epigenetics. Sir Peter was part of a collaboration with researchers at the University of Southampton (where Barker had his map Eureka moment) that showed the methylation (an epigenetic process) of a certain gene (RXRA) at birth is linked to the child’s later obesity.

Here’s another example of the environment re-tuning genes in obesity: a high-fat diet early in life is now known to increase the activity of genes that cause chronic, low-grade inflammation. This can be harmful to cells and tissues, increasing the risk of later chronic illnesses.

Sir Peter co-authored the 2012 book Fat, Fate and Disease: Why exercise and diet are not enough with long-time collaborator Professor Mark Hanson from the University of Southampton. Current scientific efforts, they argue, ignore the reality of the social, cultural, and biological factors that...
make different populations and people respond differently – through epigenetic and other mechanisms – to living in the modern nutritionally-rich world.

They say that ultimately the food industry must be co-opted to turn the obesity tide.

Can epigenetic markers be passed down across generations?

This question is profound. If “yes”, then it would overturn the standard gene-centric view of evolution.

“In this view,” says Tatjana Buklijas, “the idea is that you start from a blank slate. You have a sperm cell and an egg cell, and to form this embryo that contains the possibilities for all kinds of tissues, you have to delete all the epigenetic marks that the parents’ genes had. The argument has long been that epigenetic marks can’t survive – in less complex organisms like plants they can, but not in humans.”

A recent German study provided evidence for epigenetic inheritance in mice passed down in a father’s sperm. Mice that are raised in an environment “enriched” with exercise and cognitive training have their learning ability enhanced. The researchers found the same cognitive improvements in the offspring of these enriched mice.

Analysis of the fathers’ sperm identified several miRNA molecules that could explain the inherited characteristics, two of them known to influence activity in genes related to the formation of synapses. Other research with mice points to inheritance of epigenetic markers involved in a disease called cardiac hypertrophy.

For a trait to be considered transgenerational, though, it has to pass down to the great grandchild of the original parent. Professor Mark Vickers says most epigenetic effects wash out by the third generation in animal models.

But looking at this through a social science lens, it doesn’t matter so much whether epigenetic effects are passed on directly through egg and sperm or indirectly through similar environmental influences acting on each generation.

Medical student Helen Ker wrote an honours thesis, supervised by Tatjana Buklijas, looking at how whakapapa could provide a framework for this understanding of epigenetic inheritance.

“What’s been known for a long time in a Māori worldview is that we can’t simply separate people and their ira (gene or life principle) from their environments, and this is expressed within the Māori concept of inheritance or whakapapa,” explains Helen Ker.

“Whakapapa may be a natural and
useful framework for understanding how multiple, interacting environmental influences such as land, water and food are connected to influence health outcomes.”

For example a whakapapa framework may help us work out how to tackle health disparities, as well as intergenerational poverty, that persist despite policy interventions and economic growth.

“The great thing about epigenetics is that most of these processes are reversible and temporary, so there are things we can do to address them, which come with a call for action.”

Australian medical anthropologist Emma Kowal has sounded a thoughtful warning to the many indigenous scholars who have embraced the socially progressive potential of epigenetics.

“Although breaking down the barrier between genes and environment sounds progressive, epigenetics may not necessarily translate to egalitarian social policy,” she wrote. Epigenetics could even be used for racist agendas, as its forerunner was in the eugenics movement. “In the nineteenth and early twentieth century, many scholars believed that environmental effects on the body were inherited, and some groups experienced racial degeneration due to the ‘racially poisonous’ environment they lived in.”

Epigenetics also “has the potential to intensify the blame on parents, and mothers in particular, for children’s wellbeing, shifting responsibility away from societal factors that are far beyond maternal control [and this] could increase the already unrealistic pressure on indigenous parents to overcome the structural barriers their children face”.

Mother-blaming rings out in headlines like “Mother’s diet during pregnancy alters baby’s DNA.”

Mother-blaming rings out in headlines like “Mother’s diet during pregnancy alters baby’s DNA”, “Pregnant 9/11 survivors transmitted trauma to their children”, and “Just one cup of coffee can harm unborn children, say researchers”.

In a Nature article called “Don’t blame the mothers”, Harvard historian Sarah Richardson writes that an understanding of how both parents’ experiences impact their child’s health and wellbeing would, ideally, guide policies that support parents and children. “But exaggerations and over-simplifications are making scapegoats of mothers, and could even increase surveillance and regulation of pregnant women.”

Take alcohol. After early research into fetal alcohol syndrome (a collection of physical and mental problems in children of women who drink heavily during pregnancy) drinking during pregnancy became stigmatised and, in some parts of the United States, criminalised. A large recent study has shown no adverse effects in children whose mothers drank moderately during pregnancy, but still women suffer social disapproval and agonise over a single sip.

Expect to hear much more about epigenetic inheritance in coming years. “What is very likely,” says Tatjana, “is there are multiple layers of heredity happening – genetics, epigenetics or genetic networks that come together spatially, and cultural heredity. I like the underlying idea that we’re not separate from our environment – it aligns with my politics. It’s about seeing the world in a much more interactive way.”

---

**BAUBLES AND HIGHLIGHTERS: MOLECULAR MEMORY**

You may remember learning about the double helix of a DNA molecule at school – the twisted ladder with rungs made of pairs of bases. A gene is a section of those rungs that codes for molecules with a function – varying in size from a few hundred to more than two million DNA bases in humans.

Every organism has a unique order, or sequence, of genes, and each cell (except red blood cells) contains a more or less identical copy of that DNA, tightly bundled in its nucleus.

If you think of a human DNA sequence as the text of an instruction manual for making a human body, as science writer Cath Ennis put it, epigenetic markers can be thought of as two colours of highlighter: one for marking text that needs to be read carefully, one for bits that are less important. The highlighting pattern varies across cell types – the same genes with different instructions make different cells.

One type of epigenetic mark is methylation – where tiny molecules called methyl groups stick to certain sections of the DNA. They tend to dampen the activity of affected genes. Imagnine them as baubles dangling from the DNA Christmas tree, added and removed by special protein elves.

Another is histone modification, where methyl groups and other small molecular tags attach to histone proteins, which are the scaffolding core of proteins that DNA coils around. They can either turn up or turn down genes. These two kinds of markers work together as a system.

The new kid on the epigenetic marker block is micro-RNA (miRNA), molecules which normally help switch genes off once they’ve done their job.
WHY SHOULD WE LEARN TE REO MĀORI?

In December, a controversy blew up about the use of te reo Māori on Radio New Zealand’s National’s Morning Report. A group of old white men – and, yes, they were predominantly old white men – were apparently incensed that they had to listen to so much te reo Māori on the radio before their parakūhi (breakfast).

The tirade was led by Don Brash, in his role as spokesperson for Hobson’s Pledge, a racist and militantly anti-Māori lobby group. Of course, there was the usual tiresome canard of ‘political correctness gone mad’ levelled at this development – as if meaningful acknowledgement and recognition of one of New Zealand’s official languages was somehow unconscionable.

But the key point for Brash and his cronies had to do with their views of te reo Māori itself. As Brash commented at the time: “I’m utterly sick of people talking in Māori on RNZ in what are primarily English-language broadcasts”. For them, hearing, let alone learning, te reo Māori was simply a waste of time.

As it happens, most RNZ listeners disagreed with this view. But the deeply entrenched negativity towards te reo Māori represented by Brash and his ilk clearly still holds some sway, even after – or, perhaps, because of – over 30 years of Māori language revitalisation.

Why is this? First, because of a negative, and spectacularly ill-informed view of bilingualism that is most apparent among first language English speakers. Second, where bilingualism is countenanced, there is a view that this is only useful with ‘international’ or ‘trading’ languages. Let me look at each of these misplaced premises in turn.

The majority of the world’s speakers are bilingual and many of them are multilingual – between 70-80 percent on current estimates. Bi- or multilingualism is the norm internationally. And yet, the majority of first language English speakers are monolingual – again, about 70 to 80 percent. This perhaps explains why so many English speakers see bilingualism as a problem – primarily, because they have no knowledge or experience of it.

This negative view is most often demonstrated in ideas that learning another language is ‘confusing’, amounting to the related notion of ‘cognitive overload’. But this is simply wrong. Sixty years of research supports the fact that bilingualism is a cognitive, educational, and social advantage. It is monolinguals who are consistently disadvantaged.

To take just one example: bilinguals consistently demonstrate greater ‘metalinguistic awareness’ than monolinguals. Metalinguistic awareness is knowledge of how language works. Bilinguals are much more aware of this because, in constantly moving between the languages they use, they necessarily have to pay close attention to both their similarities and differences. Recent research has also shown that bilingualism mitigates both the onset and rate of dementia. In short, bilingualism is good for you and your brain. Meanwhile, the idea that one can get by in only English in this increasingly globalised world has also been found wanting. English monolinguals are consistently disadvantaged in cross-cultural trading contexts in relation to their bilingual peers.

This leads us to the second issue, which is the idea that if bilingualism is to be countenanced, only international/trading languages are ‘useful’ and thus worth learning. However, the research mentioned above shows that bilinguals are consistently advantaged irrespective of the particular languages in their repertoires. Bilingualism is an advantage in any combination of languages. And then there is the notion of usefulness itself. One could argue, for example, that the most useful language to know other than English in Aotearoa New Zealand is not an international language, which we would only use occasionally, but actually te reo Māori, the language outside of English that we are most likely to encounter on a daily basis.

Like the person who complains that they don’t understand what is being said at a pōwhiri, there is thus a deep irony in Brash et. al.’s dismissal of te reo Māori as worthless, while simultaneously complaining that they don’t understand it. Just learn it then! Add to this the fact that te reo Māori is our indigenous language and there is even more reason, surely, to embrace learning te reo Māori. This accords with the widely attested advantages of bilingualism, as well as honouring the language spoken (only) here, unique to us and this land of the long white cloud.

Bilinguals consistently demonstrate greater ‘metalinguistic awareness’ than monolinguals.

Dr Stephen May, FRSNZ, is an international authority on language rights, bilingualism, and language learning.

Stephen May (centre) at Tūtahi Tonu Marae at Epsom Campus with Warahi Paki (former marae manager) and Linda Paki.
Step into the shoes of Fraser Alexander and you get the chance to explore fresh horizons not through the usual visual channels but through touch and smell and taste and sound.

By Janet McAllister

“I’m not an adventurous traveller,” says University development manager (and alumnus) Fraser Alexander.

This is a surprising statement from a man who loves the intensity of India and who found Norway was, frankly, not smelly enough to be interesting.

But it’s just his daily journey into work that Fraser is talking about. Though later in the year he’s looking forward to flying to Vietnam, Laos and Cambodia, in his day to day life he prefers to avoid travelling on Auckland buses.

The underlying reason? Fraser is blind – which makes his intrepid overseas exploits all the more remarkable. He’s been to over 60 countries, 45 of them with his wife Christina – who is visually impaired – including Morocco, Spain, Portugal, Sweden, Finland, Egypt and Israel. The couple are not sight-seeing so much as they are texture-touching, smell-sniffing and noise-noticing.

Fraser has written vividly for several publications about his voyaging. Here’s his New Zealand Herald description of feeding peanuts to monkeys in India:

“The monkeys’ hands feel like warm little leather gloves as they gently prise open our closed fists.”

He graciously admits when he’s bested by a market guide in Mysore who playfully asks him to identify what he’s smelling: “The bananas and roses, no problem - but dismal failure with the carrots, betel nuts and marigolds.”

Less pleasant perfumes are also part of the travel experience. In the medina of Fez, in the words of Fraser’s Herald article on Morocco, “acidic smells waft from tannery vats filled with limestone and pigeon excrement, from butchers’ stalls displaying the heads and testicles of sheep, from the steaming snails and from the fish souks.”

Fraser also writes light-heartedly about the more mundane parts of travel, such as negotiating airport processing when blind.

“In a hesitant tone, immigration staff stumble on the questions that are usually delivered with military precision,” he wrote for Singapore Airlines. “Um, err… do you know… exactly what is contained in your baggage, sir?” There is the occasional assumption that loss of sight somehow has other implications – like paralysis. “Would you need a wheelchair, Mr Alexander?”

For Fraser, encounters with ordinary people while travelling are as important as the sensory overload. “I like the unpredictable,” he told me. “I like to understand what people are about and I don’t get enough of that in my daily life here in Auckland.” The ying and yang of...
home comfort and holiday excitement suit Fraser: taxis to University House where he works as legacy specialist, and handling snakes in Marrakesh.

Fraser hasn’t always been blind. He could see as a child, and although he developed night blindness as a teenager, doctors misdiagnosed its cause and advised that Fraser’s vision issues would probably only become acute in his 50s or 60s. He decided to become a pharmacist but then, surprisingly, even before he completed his pharmacy diploma, it became clear his deteriorating perception of colour contrast would make it impossible for him to compound medications safely. At 28, he could still read and drive, but by his early thirties if he wanted to go for a training run, the keen marathoner had to go to Tāmaki Drive so he could follow the white line separating walkers from cyclists – and even then he would still occasionally trip and graze himself. He finally lost all functioning vision 15 years ago, at age 37.

Giving up pharmacy at age 23 was the first huge hurdle of this deterioration, and understandably disappointing. But Fraser says he comes from a West Auckland family where the attitude is: “it’s not what happens to you, it’s what you do about it… you get on with it.” The advisers who had encouraged him to go into pharmacy now encouraged him to put his learning to good use in a career as a pharmaceutical representative. He took this advice, and went to work at Glaxo New Zealand after finishing a Bachelor of Science at the University of Auckland.

The same “don’t give up” attitude saw Fraser run more of his 28 marathons blind than he ran sighted. He ran the New York marathon twice with a guide from Achilles New Zealand (an organisation that enables people with disabilities to participate in running events) holding a short rope around Fraser’s wrist.

In contrast to his marathons, walking by himself with a white cane isn’t something Fraser has prioritised. He’s learned how to navigate his local Mt Eden block of shops – the supermarket, the coffee shop and the hairdresser – “but that’s really the extent of my journeys”. Hence, his statement that he’s not an “adventurous traveller”.

He’s very happy to converse with people who see him out and about (particularly children asking “why’s that man whacking that stick on the ground?”), but one issue that most of us wouldn’t even think about is the risk that people will stand on his cane. It happens more often now, says Fraser, as pedestrians watch their phones.

Although his deterioration was unusually early, Fraser is most likely to have a rare genetic disorder called choroideremia which affects blood vessels and pigment cells in the retina. Confirmation of his specific gene mutation is a work in process. Hoping to benefit from rapid advances in gene discovery and gene-sequencing, his eye doctor Andrea Vincent, a University of Auckland associate professor in ophthalmology, “sends my blood around the world every few years,” says Fraser. But so far, several questions remain unanswered.

As those answers, even when they come, are unlikely to lead to any sight-restoring treatment for Fraser personally, he is sanguine rather than frustrated about what he doesn’t know. Instead, he’s just pleased to contribute to science through his research support. “I really think it’s opened up a new world for me that I really find stimulating,” he says.

The most recent research satisfaction for Fraser was organising a highly successful Retina International conference at the University of Auckland in February. Speakers included Andrea Vincent, discussing the NZ Inherited Retinal Disease database which has more than 500 participants, and the Dean of Arts Professor Robert Greenberg, who has been legally blind since age 18, talking about “leadership in a sighted world”.

The conference brought together groups that have – as Fraser puts it, no pun intended – a shared vision. “We had some amazing scientists there, we have some really compassionate clinicians, we have patients who really want to know what they can do to help the doctors and scientists develop treatments. It was a good chance to bring so many communities together with a purpose and a philosophy of life that was really me.”

For once, the world visited Fraser – but Fraser will be off visiting the world again in the very near future.

"Acrid smells waft from tannery vats filled with limestone and pigeon excrement, from butchers' stalls displaying the heads and testicles of sheep, from the steaming snails and from the fish souks."
IS NZ STILL A GREAT PLACE TO BRING UP CHILDREN?

We asked this question of three professional people, all deeply concerned in different ways about the welfare of our children.

NZ LAGGING BEHIND

Andrew Becroft, Children's Commissioner

Prime Minister Jacinda Ardern has said that she wants Aotearoa New Zealand to be the best place in the world to be a child. At one time this may have been the case. But New Zealand is lagging behind countries it used to rival, such as Denmark and Sweden.

The 1.1 million children and young people under 18 years old are nearly 23 percent of our population. Seventy percent of children are doing well, and some world-leadingly well. But 20 percent experience significant disadvantage and adversity, and 10 percent do as badly as, if not worse than, children living in the most disadvantaged conditions in other OECD countries.

We should be world-leading in child wellbeing. But instead we have the highest rate of youth suicide in the world, the second highest rate of reported bullying in schools, and unacceptable rates of family violence, child abuse and neglect.

Ten percent do as badly, if not worse than, children who are at the most disadvantage in other OECD countries.

The Office of the Children’s Commissioner advocates to improve the wellbeing of all New Zealand children, but especially the 10 percent and 20 percent I mentioned.

It is a relatively recent problem – only emerging in around the last 30 years. I am confident that we can make real progress through government and communities working together to tackle these issues.

The government focus on reducing child poverty and developing a child wellbeing strategy is very encouraging, and builds on some promising steps taken by the previous government.

In particular, we must address the over-representation of Māori in these negative statistics. Our education system needs to be more inclusive of those with disabilities and special needs. We need to give real life to the Children’s Convention, something that is little understood in New Zealand. And we need to regularly seek out and hear children’s voices when we make decisions that affect them.

Many of you will be highly-skilled professionals, potentially working in areas to do with children. I was once challenged by a young youth worker that everyone working with children should be a “merchant of hope”. The challenge for all of us is to use our skills to improve the lives of New Zealand’s children.

Andrew Becroft, BA, LLB (Hons) has been Children’s Commissioner since July 2016. He was appointed as a District Court Judge from 1996, and was the Principal Youth Court Judge from 2001. He was a Distinguished Alumni Award recipient in 2010.

Sophie from the Growing Up in New Zealand project at the University of Auckland. See story in Ingenio, Autumn 2014 (www.ingenio-magazine.com)
HE AHA TE MEA NUI O TENEI AO?

Dr Mataroria Lyndon, senior lecturer at the University and lead clinical adviser at Counties Manukau District Health Board

Is Aotearoa still a great place to bring up kids?

I wish that I could proudly answer “yes” to this question, but I can’t. The image of the quintessential young Kiwi family packed into a station wagon, with a dog, headed for a lovely day at the beach is a far-off dream for many New Zealanders.

There are an estimated 200,000 tamariki living in poverty and 90,000 rangatahi, or young people, not engaged in any form of education, training or employment.

I believe that this country is on the turnaround and that the catalyst for this is the new government, after nine years of “crisis, what crisis?” Policies that invest in empowering and educating our young people, that promote innovation and cross-sector collaboration, and protect our natural resources will be important to improve society for the benefit of our future generations.

The Budget, due out as Ingenio goes to print, should give an indicator of priorities for the government, though it will take longer than three years to make the turnaround needed.

Aotearoa now has a government that cares and it needs the chance to deliver on its new approach.

You may think that I am an optimistic socialist – maybe. My view is underpinned by my upbringing in Tikanga Māori, “He aha te mea nui o tenei ao? He tāngata, he tāngata, he tāngata.” What is the main thing in life? It is people, it is people, it is people.

Dr Mataroria Lyndon MBChB, MPH, PhD is on the staff of the Centre for Medical and Health Sciences Education and is lead clinical advisor in Māori Health at Counties Manukau DHB. He completed a Master of Public Health at Harvard University as a Fulbright Scholar and Frank Knox Fellow in 2017.

LEARNING FROM CHILDREN

Viviana Becker, early childhood teacher

No matter our age, to be human is to seek meaning, to want to make sense of and act upon our environment. I did not grow up in New Zealand but, throughout the years, I have noticed how the most cherished memories of those who did, relate to times of uninterrupted – and often unsupervised – outdoor exploration, and of unhurried times with friends and family.

Times are a-changing. Children are less able to act in their own spaces. Instead, they are placed in children’s services, which are undoubtedly transforming the way we think about children. We are being told what it means to develop “normally” and parents are increasingly worried about their children being disadvantaged from spending too much time at home. What if they are not learning the “right” things? In this new normality, parents who choose to stay at home feel pressured and guilty instead of seeing themselves as valued partners in the upbringing of their children.

The cost of living is rising every day so not many families can afford for one parent to stay at home. However, it is important to remember that the increasing demand for care services has not been a matter of choice, but has been created by political and economic decisions. By policies that prioritise cheap labour, longer working hours, less parental leave and overall support for families.

New Zealand has pledged to advocate for the interests, rights and wellbeing of children. Central to this is our commitment to listening to children. “Is NZ still a great place to raise children?” I think children would have much to say about it as they have a unique perspective on what it means to be a child today. Yes, it is easy to dismiss their opinions as being cute, naïve, or uninformed; yet, when given the opportunity to act on their rights, children are incredibly reflective and insightful. We could all learn from listening to them.

Viviana Becker, MEd (first class honours), PGDipEd, GradDipTchg (ECE) and PhD student: “I firmly believe that who we want to be as a society needs to be questioned, negotiated and reflected in our communities and I advocate for children’s right to participate in this dialogue in meaningful ways.”

Compiled by Helen Borne

WHAT DO YOU THINK?

Is New Zealand still a great place to bring up children?

The views of our contributors are intended as the beginning of a discussion, which our readers can then respond to. We would love to hear what you think. Please write a letter to the editor (j.wilford@auckland.ac.nz) to continue the conversation or visit our Ingenio website www.ingenio-magazine.com

The views expressed on this page reflect personal opinions and are not necessarily those of the University of Auckland.
One of the goals of history is creating a usable past,” says Associate Professor Jennifer Frost. “What stories do we need to know to make sense of our world today?”

She says teaching 20th-century United States history – specialising in women’s history, social movements and popular culture – at the University of Auckland over the past 15 years has given her a refreshing new context.

“Historians who teach American history predominate in the United States, but in New Zealand, my husband Paul Taillon [who also lectures at Auckland in history] and I make up a very small minority of the profession and we’ve had to adjust our courses and teaching to reflect that.”

She gets quite different responses to the same course content from Kiwi students.

“My Auckland students haven’t already been taught American history a certain way in school, as US students have. When Paul and I taught in Colorado for example, our students were surprised to discover that the US has been seen as an imperialist nation from the early 19th century on. In New Zealand, our students already knew that.”

Growing up in the 1960s in the San Francisco Bay area, she says her interest in social movements that bring about change “from the bottom up” was probably inevitable.

“I became aware of inequalities based on class, race and gender through my own family, which is diverse. My mother was Latina, a Catholic from New Mexico and my father is Irish American, also Catholic. I have 25 first cousins and I very much noticed the difference in opportunities open to us as children and young adults, depending upon our parents’ education, employment and ethnicity. I was also brought up with values of social justice, service and mercy, in line with the best of Catholic teaching.”

She completed her undergraduate degree at the University of California Davis and attended the University of Wisconsin Madison to do a graduate programme in US women’s history. “Wisconsin had a reputation for activism and radical historians who changed how we think about history.”

Jennifer’s first book, An Interracial Movement of the Poor: Community organizing and the New Left in the 1960s, looked at a group called Students for a Democratic Society, an organisation that became synonymous with the white New Black Lives Matter, the ‘Me Too’ and ‘Never Again’ movements, action on climate change, nuclear disarmament, poverty; these are the defining issues of our age. And as many current protests have their beginnings in the youth movements of 1960s America, US historian Jennifer Frost’s courses are consistently relevant and popular.

The times, they are a-changin’
Left in America. “Its goal was to build an interracial movement of the poor through which to demand social and political change. It was a complete failure, but they learned valuable lessons.”

Coming from California, she developed her early interest in Hollywood movies into a popular undergraduate course on 20th century US history through film, which demonstrated the power of movies to influence and potentially change the status quo.

“I loved teaching that course and the students loved it too. One of the movies we looked at, It, with Clara Bow, for example, was a 1927 silent romantic comedy, one of first ever to feature a woman in a strong, central role.”

Her movie focus then took her into the bitty world of Hollywood celebrity gossip and the notorious Hedda Hopper, a former actress turned gossip columnist and radio personality, known for naming ‘suspected communists’ during the McCarthy era, upholding traditional views of sex and marriage and defending racist roles for African Americans.

“I was interested in how powerful she was. In her heyday, Hedda’s column in the Los Angeles Times had 32 million readers for 27 years. Who could have been bigger, or had more of an impact than that!”

Recent commentators have used her second book, Hedda Hopper’s Hollywood: Celebrity Gossip and American Conservatism, to talk about the ‘weaponisation of gossip’, making the connection between Hedda’s era (late 1930s through to the early 1960s) and the Trump presidency’s focus on fake news and alternative facts.

Her current research has brought her back to youth movements; specifically the 26th Amendment to the US Constitution in 1971, which gave voting rights to 18 to 20-year-olds and involved the fastest ratification process ever.

“Why did they pass the 26th Amendment so quickly? People think it was because politicians from both parties, like Nixon and Kennedy, supported it, but in fact it was a bottom-up movement, it passed because young people, women, black Americans, pushed for it and supported it.”

She says the long debate over lowering the voting age … intensified during the Vietnam War, when young men denied the right to vote were being conscripted.

The long debate over lowering the voting age … intensified during the Vietnam War, when young men denied the right to vote were being conscripted.

gap on the topic of youth voting rights. My students and summer scholars have gotten very engaged and creative with it. I want to be writing and teaching history that matters in the present.”

Staying on the issue of voting, she voted for the first time as a New Zealand citizen in the last election and was impressed with the process.

“I think New Zealand has really got the right idea with elections; 79 percent voted at the last election, that’s a lot compared to 58 percent in the US. Also, unlike the US, there’s a short election lead-up during which policy is actually discussed; there’s a substantive debate here. You also vote on a Saturday when most people are actually free to get to the booths, as opposed to Tuesdays in America. And I’m a big fan of MMP.”

She’s delighted that she and Paul and their two children, 13 and 17, now have New Zealand citizenship and have made their home in peaceful Laingholm, West Auckland, where they’re happily settled.

“My children think of themselves as Kiwis. When we were back in the US recently, my children sang the New Zealand national anthem for my family in both English and Māori and were so proud to do so; one of my own goals is to upskill on my te reo.” She has considerably upskilled in New Zealand history through teaching a comparative course on racial histories with colleague Dr Aroha Harris.

Jennifer believes there are always new things to learn or teach, and is a strong advocate of the teacher as scholar, as opposed to a scholar who happens to teach.

“I’ve been published on my teaching methods and was honoured to win a University teaching award in 2012. I’m committed to deep, active learning, I don’t just lecture. It’s about asking questions and getting students to become active learners. It’s very important that they make their learning their own.”

She says studies in the US show that after five years, most students have forgotten 80 percent of what they’ve learned.

“So I ask my students at the end of my course, ‘Given that fact, what do you want to remember?’ I see teaching as discovery and learning as a collaboration between teacher and student.”

How does she feel about what is happening in America under Trump?

“I do have to be able to explain the US to my students, so I have to keep up with what’s going on there. Students in some states can carry guns into classrooms, they are all familiar with ‘active shooter’ drills. It’s frightening. But I wake up every day with gratitude that I now live here and not there.”
Blockchains are distributed ledger technologies with the power to transform the world. Blockchain is not just about banking, business, legal services, and supply chains; it also changes how we buy and sell, control our assets, and live our lives.

Alex Sims, an associate professor in Commercial Law at the Business School and a researcher with a strong focus on blockchain technology, offers us her simplest possible answers to the questions we didn’t know we wanted to ask.

How much do the people you meet know about blockchain?

Fewer than 10 percent of the people I speak to have even heard of blockchain. But 99.5 percent know about bitcoin, the first and best-known of the cryptocurrencies that blockchain technology supports.

Can you give a couple of simple examples of changes it will bring?

There are many, many ways to apply the technology. Here are some examples of its use in supply chains.

An exporter selling goods overseas using the current system will normally despatch the goods and, after being notified of their safe arrival, wait to receive the payment, which can take days or weeks through the current banking system. With blockchain, the payment can be made within minutes of the goods arriving. The technology allows you to set up what is called a “smart contract”, which is effectively a self-executing computer programme. If you and the buyer agree that the payment will be, say, $50,000, the buyer will send that amount in a cryptocurrency (normally ether) to a smart contract. Meantime, a small “internet of things” (IoT) device will be travelling with the container. When this device is picked up at a pre-agreed point at the foreign port it triggers the payment. You never have to worry about the other person refusing to pay because the payment is self-executing. If the goods do not arrive, the payment is returned to the buyer.

IoT devices can also be used to monitor temperature and other features, for example, registering if a container’s door was opened during transit. If a perishable product such as yoghurt were to be sent to an overseas destination such as China, the smart contract could be coded so that

When will the changes start?

They’ve started already in ways that many people are not yet aware of. Industry and governments around the world are now trialling the use of blockchain technology.
the payment to the supplier would not be made if the temperature moved from a pre-agreed level, resulting in the spoiling of the goods. This would also be useful for the supplier as it would show precisely when the yoghurt became too warm.

Now, that sounds good but it gets even better, because cryptocurrencies are essentially programmable money. If you’re selling primary produce — for example, meat — the supplier often needs to pay a number of people from the proceeds of the sale, including the farmers, the transport companies, the shipping line, the Inland Revenue Department and so on. The “smart contract” can be coded so that the parties can be paid out their percentages within the single transaction – which, for some, might mean a great release from the kind of financial pressure that delays can bring. And, since the transactions are recorded on the blockchain, auditing becomes a lot simpler.

Blockchain has many applications in the area of intellectual property. For example, it can make the payment of royalties more transparent and reliable than was ever possible before, in ways such as enabling “micropayments” every time a musician’s composition is played, thus removing the current delay of months or even years to receive royalty payments.

**Can you give examples of the way blockchain can change the lives of people who are not in business?**

Most people make a will at some time in their lives. When you die there’s the long-drawn-out process of obtaining probate before the executors pay out from the estate.

With blockchain, you will be able to write your will as a smart contract, with all your assets represented as “tokens”. As soon as your death certificate is issued, automatic distribution of your money and assets will be made to the beneficiaries. In practice, though, a delay of, say, two months, may be required to allow people to lodge a challenge to the will if they choose to.

(I would add that such a scenario is some way off and would require a number of changes to the law.)

A non-monetary example is in the area of health care, where it would allow individuals to hold their own health information and make it available to doctors and health care providers in a way they could control themselves. This would mean our information would be a lot more secure, since it would not be sitting on an organisation’s servers, which can be hacked.

**Can you tell us about some of the work that’s leading up to these changes?**

Both the examples above, as well as many other areas of blockchain technology, will require us to identify ourselves digitally. Digital identity is therefore an important area that is being worked on. It will give us the added benefit of removing the need to provide reams of identification each time we open up a new bank account, obtain a loan or even – in the case of younger readers – give proof of age when buying alcohol. Instead of producing ID such as a driver’s licence, which means handing over a name, address and other personal information, the young people will simply be able to provide proof of age.

**The examples you’ve given seem to suggest that banks and lawyers will lose customers. Does that mean they are opposed to blockchain technology?**

Let’s just say there’s a lot of denial. Blockchain technology is compelling and there are many types of business on which it will have an impact. Among these are some that don’t understand the technology, and more that do understand but believe nothing is going to happen to them. However, there are others who understand and are trying to put obstacles in the way of its advance. The ones who will win are those who have foresight enough to say: “OK. Things are changing. How can we leverage this?”

The Achilles’ heel of blockchain technology is that a person’s ability to spend money or assets depends on a private key, comprising a very long string of numbers or letters. To forget that sequence is to lose the money forever. Also, while blockchains are secure, people can be scammed into revealing their private keys. So that’s one way in which banks can play a role. They can be the custodians of private keys — and therefore can manage people’s assets and earn transaction fees.

**Are there any myths about blockchain or cryptocurrency?**

There are plenty of false beliefs people have about cryptocurrency. Many people believe you can’t spend it in a shop, which is not true. A cryptocurrency, such as ether or bitcoin, can be loaded on a debit card, which can then be used in any machine that takes Visa or Mastercard. And you can withdraw cash from any ATM and have it debited from your cryptocurrency account. When you pay in cryptocurrency with a debit card, the merchant will not realise this, as he or she receives New Zealand dollars.

I know people who get paid only in cryptocurrency and they live perfectly well in New Zealand — even though cryptocurrency debit cards must be ordered from overseas.

There seems to be a common belief that criminals use cryptocurrency. Is that true?

Not as much as they use the existing banking system. In fact, criminals use cryptocurrency a lot less, because most cryptocurrencies are more traceable than money paid into a bank. If someone sends money to my bank account, all the bank can see is who it came from. With cryptocurrency you can see all the lines of payment, so it’s much more transparent.

**Do you think people in the relevant industries are sufficiently well-prepared for the changes that are coming?**

There are industries in which people know what is coming and are setting themselves up to be efficient, and to make a great deal of money. The players in those industries who don’t adapt could stand to suffer enormous losses.

I’m a believer in “Follow the money”. When you’ve got big businesses pouring millions into it, when companies like Microsoft and IBM are doing an enormous amount of work on it, you know this is not just on the fringe. The change is coming, it won’t stop and it can’t be ignored, even considering that many people will be using it without even realising.

**How quickly do you think the use of blockchain technology will advance?**

People are saying blockchain is now where the internet was in 1994, but the spread of change is much faster. Some people believe they will have 10 to 15 years to adapt. I believe it’s probably less than five.

Alex Sims is leading a team of legal and banking experts tasked with developing a framework for regulating cryptocurrencies in New Zealand and Australia, supported by a $50,000 Law Foundation grant.
A FIRST FOR THE WORLD

People out strolling along Pt Chev Beach in Auckland who came upon Dr Suzanne Cowan up a tree, suspended by ropes and dressed as Supergirl, could not have known that what they were seeing was research in action.

Suzanne, a teacher, dancer and choreographer, graduated at this year’s Autumn ceremonies as the first wheelchair user in the world to complete a PhD with a creative practice component in Dance Studies.

Wanting to challenge where she could go, Suzanne devised dance works set in locations that were traditionally inaccessible for her.

“I want society to move away from definitions like disabled and non-disabled. Through my performance I am reimagining and reconstructing how we use space, and specifically our response to disability,” says Suzanne.

The unusual performance entitled “Pt Chev Hanging”, is one of a series completed as part of the practical component of her doctoral research.

Suzanne has also performed in the bush at Piha and under the skirt of a Morton Bay fig tree in a park in Mt Roskill.


To find out more about her latest research visit hdl.handle.net/2292/36942
SEEN ANY STARFISH LOOKING UNWELL?

Around the world starfish are dying from a wasting disease.

Scientists are concerned that a change in sea temperatures might start affecting some species of our own New Zealand starfish.

Professor Mary Sewell from the University’s School of Biological Sciences and Dr Ian Hewson from Cornell University in Ithaca, New York, are asking the public to report sick starfish.

Called sea star wasting disease or SSWD, the disease has affected millions of starfish on the west coast of North America. It appears to be related to a viral infection, but also changes in different environmental conditions, in particular in warmer ocean temperatures.

“Since waters of the Tasman Sea and surrounds have been anomalously warm over the past few months, it’s possible that this wasting disease is affecting species around the New Zealand coast and we are asking anyone who sees a sick starfish to contact us,” says Dr Hewson.

New Zealand has many species of starfish (also known as sea stars or asteroids) but only one instance of the disease has been documented here and that was in 2015.

The disease begins with changes in behaviour including lethargy and curling of limbs, followed by development of lesions on the skin surface, loss of arms and deflation of the body until the starfish eventually dies.

Mary Sewell says a photograph of any starfish exhibiting symptoms, along with the date it was taken and the location, including GPS co-ordinates if at all possible, would be very useful.

Anyone who wants to report seeing a starfish affected by SSWD can go to the Starfish SSWD New Zealand Facebook page, or email: m.sewell@auckland.ac.nz

Right: A healthy reef star, Stichaster australis, from Piha Beach, West Auckland. Photo Charlotte Johnson

THE RISE OF NETFLIX

How did Netflix go from a tiny, obscure DVD rental start-up in the late 1990s to the world’s biggest internet TV network?

Management experts at the University’s Business School have identified some of the secrets of its success, and predict its rise will continue, eventually erasing most of its smaller competitors in New Zealand and abroad.

Recent graduate Paul Rataul had turned to Netflix when seeking a model for “disrupting” academic publishing.

“How did Netflix outmanoeuvre the titan that was Blockbuster Video? It was a real case of David versus Goliath,” he says.

He teamed up with Dr Dan Tisch and Dr Peter Zámborský, both from the Department of Management and International Business. They analysed company and media reports, applying insights developed by New Zealand-born strategy theorist, David Teece, and have now published their conclusions in SAGE Business Cases.

The key features of the Netflix business model were a trusting and experimental culture; capturing the value of other people’s creativity (movies and TV shows); and appreciating the value of customer data (subscribers’ viewing habits), which helped generate not only personalised recommendations, but also Netflix Originals series and films.

“What Netflix did was to do little experiments, little bets, with certain demographics and once they saw what happened they’d scale it up,” says Paul, who now runs millennial career coaching firm, Millennial Mindset.

“The world’s most valuable resource is no longer oil, it’s customer data,” says Peter Zámborský.

Netflix has always excelled at sensing and seizing opportunities, and has reinvented itself again and again. It was also a case of being in the right place at the right time, as video streaming speed and reliability increased and viewing devices became cheaper and ubiquitous.

This is abbreviated from a story in Uninews, Issue 2, April 2018. For the full story see www.auckland.ac.nz > News and opinion > University publications > Uninews.
This summer, students Victoria Brownlee and Penelope Jones (both Law/Arts) co-directed the United States Leadership Tour 2018. This was a month-long trip facilitated by United Nations Youth across five cities for 16 university students. Its purposes were to explore career pathways in the US and attend the Harvard National Model United Nations (HNMUN) conference. This is the story of their whirlwind adventure.

**TOUR TO EXPLORE UNCONVENTIONAL DREAMS**

What experience did you bring to the tour?

**Penelope:** I had served three years as a student politician for Auckland University Students’ Association (AUSA), and was ready to bring everything I had learnt to a new project and the international stage. At AUSA I had the opportunity to work with large budgets, gain pastoral care experience and tangle with sponsorship. I had advocated for students at every level of the University and was excited about the possibility of creating a life-changing experience for students from all around the country.

**Victoria:** I was totally new to UN Youth when I was appointed as co-director. I had always wanted to get involved with the organisation and the timing was finally right. I think they chose me because I was passionate. I had a vision of empowering young people to explore unconventional dreams. Beyond that, I brought a complementary skillset to Penelope. I had developed strong skills in relationship management, communication and logistics through working for the Alumni Relations team at the University. I was also big on teamwork, having spent eight years as a competitive cheerleader.

What was involved in preparation?

**Victoria:** We were responsible for organising every aspect of the tour. We divided the work into nine operational areas: education, marketing, administration, communications, logistics, finance, relations, sponsorship and welfare. We each had our own speciality areas and shared the larger portfolios. By far, our biggest task was recruiting delegates. We needed 14 more and carefully narrowed down over 50 applications from all eight New Zealand universities to the top 14.

**Victoria:** We were responsible for organising every aspect of the tour. We divided the work into nine operational areas: education, marketing, administration, communications, logistics, finance, relations, sponsorship and welfare. We each had our own speciality areas and shared the larger portfolios. By far, our biggest task was recruiting delegates. We needed 14 more and carefully narrowed down over 50 applications from all eight New Zealand universities to the top 14.

I also spent a lot of time on logistics and relations. I put together our itinerary and coordinated the group’s travel plans. This involved setting up meetings with 55 speakers at 32 organisations, ranging from Google to the United Nations.
I researched educational group activities in each city and arranged flights and accommodation.

Penelope: I focused mainly on finance, sponsorship and welfare. I created the many budgets for the tour, which took a lot more time than I thought it would, requiring regular readjustments. Unfortunately, the exchange rate wasn't on our side. I focused on helping delegates with their individual sponsorship by creating a sponsorship pack for them, and also worked on sponsorship applications on behalf of the group. Knowing that the trip would most definitely have bumps along the way, I created many welfare plans that could be put into action if a number of scenarios occurred.

What were the most exciting events for both of you?

Victoria: It's hard to pick just one. Being in New York was a highlight of the trip. There was one particular meeting with Nishika de Rosairo that stood out to me. Nishika is a superstar alumna and former management consultant at Deloitte who is now CEO of two successful start-ups. She gave an incredibly inspiring talk about going after the things you want. It opened my eyes to career pathways in business strategy and made me realise that the glass ceiling can be broken.

Penelope: This is a tough one but I think I would have to say meeting Bowen and Maya Pan at the Facebook Headquarters in Silicon Valley definitely blew me away. The Facebook campus was designed to look like a cross between Main Street Disneyland and downtown Palo Alto (the town where Facebook got its start). We were lucky enough to be able to explore the campus, taking in the arcade, Facebook bikes and cafeterias (food is free by the way). We were exposed to a different type of work lifestyle which we don't really see here in New Zealand.

What changes did you see in the participants?

Penelope: I think the most important change I saw in the delegation was the exposure to other careers and fields that they had not previously considered, and the realisation that they weren’t boxed in to only typical careers related to what they’d studied at university. For example, Arts students were now considering careers at Google and Facebook, and Commerce and Engineering students got so much more out of meetings with the New Zealand and Canadian Embassies than they thought they would.

Victoria: The most rewarding part of co-directing the tour was witnessing the delegates grow. They transformed from a group of strangers into a family. It was amazing to see them affirm their interests and discover new ones. Their dreams became goals, and that is the best result I could possibly have hoped for.

What are your plans and how have they been affected by the experience?

Penelope: My plans have totally changed. After spending six years at university, I thought I was done with study, and ready to move into work. Now, after the tour, my energy has been renewed and I want to pursue my master’s at a university in the US. I loved visiting Georgetown, Columbia and Harvard, and I could imagine myself there within the next two years. I have an interest in healthcare law, and currently work at the Office of the Health and Disability Commissioner, but I’m fascinated by Verily Life Sciences – formerly a division of Google. They work on bringing technology and life sciences together to develop the next generation of healthcare solutions.

Victoria: I want to move to New York within a year. It feels like a city of possibility and that excites me. The tour completely changed my future plans. I was pretty set on a career at the intersection of international law and relations before the trip. I imagined myself working in policy around security, development or human rights. However, I loved the business and technology meetings on the tour. I was fascinated by the speakers’ energy and it made me realise that I want to solve business problems. This came as a complete surprise because I have never studied a Commerce course in my life. Now I think I would thrive in a strategic advisory position, but I am willing to work for whoever sponsors my visa.

Just as this issue of Ingenio went to press, the exciting news came out that Victoria is to be a Political Affairs Intern with the United Nations Office for Disarmament Affairs from July to December.

STUDENT LIFE
By Pete Barnao

Student days and the life-changing power of education are close to the hearts of alumni filmmakers Stallone and Dinah Vaiaoga-Ioasa. The New Zealand-born Samoan brother-and-sister team drew deeply on Pacific themes in this year’s hit comedy film *Hibiscus & Ruthless*. But their experiences of university helped shape nearly every scene.

*Hibiscus & Ruthless* tells of the trials of Hibiscus (Suivai Plisipi Autagavaia), a talented, hardworking Samoan student, as she strives to complete her engineering degree without distractions.

With her overbearing mother’s decree of “No going out and no boyfriends!” ringing in her ear, Hibiscus enlists her wild-eyed childhood friend and fellow student Ruth (Anna-Maree Thomas) – aka Ruthless – as her unlikely guardian against temptations.

This is director Stallone’s second feature film, following his 2016 debut *Three Wise Cousins*. Dinah, an associate producer on the first project, is the film’s producer.

After a joyous January premiere at Auckland’s Civic Theatre, *Hibiscus & Ruthless* grossed more than $180,000 in a week, earning more per cinema than a bevy of big-budget Hollywood flicks. A month later it opened in Australia, with a US release planned for the middle of the year.

What makes its success even more remarkable is that, like Stallone’s first film, it is totally self-funded, self-distributed… “Self-everything!” says Stallone.

“I wanted to make a film about parenting. On paper, that doesn’t look like the most exciting premise. But I wanted to show the pros and cons of having a very strict, conservative parent – especially in a Pacific context, which is quite common. It’s about parents who are very honest and well intentioned. But that’s also restrictive and can inhibit growth and your ability to be fully prepped for the real world.”
He also wanted to make a film for the Pacific community. “But one that could cross over beyond the Pacific demographic.”

The movie celebrates expat Samoan culture. “Less about the song and dance and costumes, and more about the reality of how such culture exists in a suburban setting, in a New Zealand setting, in a middle class setting. The Samoan protocols, how you interact with your elders, making the food… how those traditions still exist in a present-day society. A culture doesn’t only exist where it stems from.”

With scenes shot on location around the University Hibiscus & Ruthless represented a homecoming of sorts.

This culture-in-exile can be a source of internal conflict, but also personal enrichment. “I really wanted the Ruth character, in particular, to hold both worlds in herself. Ruth is a Pākehā young woman who has grown up in a Samoan household and doesn’t belong exclusively to either society. She’s able to move through both quite easily. Which I think is true for a lot of first and second generation cultures.”

Asked why he set the film at university, Stallone points to a life-stage charged with tensions to be explored. “It’s a time in your life that’s a crossover. It’s the final step between being a child and an adult and moving into the real world. It’s time to take charge and be independent. But for some students, they’re still living at home and are caught between those two worlds and kind of negotiating.”

The 33-year-old himself graduated ten years ago with a BA/LLB. Dinah, now 27, gained a Bachelor of Engineering, specialising in Chemical and Materials in 2012.

Other alumni in their crew include editor Jack Woon (a graduate in Arts and Engineering), whom Stallone has worked with since they met on campus 12 years ago, and Arts graduate, wardrobe assistant Elizabeth Vitale.

University was clearly an enormous formative experience for both siblings; and it is clear that they each harbour a deep commitment to seeing others follow in their path.

In their student days, both mentored Māori and Pacific students through the University’s Tuākana programme; and secondary school students as part of MATES (the Mentoring and Tutoring Education Scheme). Stallone also worked as an advisor in the Equity Office, running outreach activities for high school students.

With a number of scenes shot on location around the University Hibiscus & Ruthless represented a homecoming of sorts. “For four years of my life, it was my second home. Sometimes my first home!” says Dinah. “It felt good to be back, to see the lecture theatres and hallways, and to share that with members of our cast who didn’t come through university – and share it in the film.”

Their degrees may seem of questionable relevance to filmmaking but both say their studies contribute greatly, often in surprising ways.

Stallone, whose Arts major was in Film, Television and Media Studies, insists his legal training has also played its part. He had planned to become a lawyer and “make films on the side, or at least make enough money to make films”. But he soon just went with film, first taking up work as a freelance director and camera operator in television.

In his new life as cinematic jack of all trades, his law degree means he can tackle complex paperwork and contracts thick with “legalese.”
“Law School also gave me a much more analytical mindset, to streamline what I needed to do. And that helps in the filmmaking process.”

Dinah, a former head girl at Auckland Girls’ Grammar and one time Miss Samoa contestant, used her engineering expertise to work in the limestone industry, first in New Zealand, then as a process engineer for a lime kiln in Canada.

Ten months into her Canadian job her brother called her about producing his film. Dinah had no idea what a producer did. But after careful consideration, backed by family, she quit her job to “give it a go”. She immediately started seeing unlikely parallels with her previous work.

“As a process engineer I had projects that involved working with a lot of different teams: maintenance, lab, operators… and I found that film producing is kind of the same. I have to work with the director, the writer, the DOP [director of photography]. I work with all these different teams to make a quality product – which is exactly what I did as a process engineer, except that my quality product there was limestone. Now it’s film.”

Her engineer’s eye for efficiency also arms her to wring all she can from a tight budget and resources.

So, given her background, how biographical is Hibiscus & Ruthless’s plot about a young Samoan woman studying engineering? “I didn’t plant that seed in Stallone’s head to have her studying engineering,” Dinah insists. “He just one day, writing the script, started asking me about my final project and bits and pieces about studying engineering, and it went from there.”

Neither, it seems, are the film character’s temptations and sacrifices pure fiction. “For engineering, the time you needed to take out to study to pass your papers… I did have to sacrifice a few things. Certainly I knew some people who were big drinkers. But for me and a lot of friends, we were mainly just heads down studying every opportunity we got.”

Along with Hibiscus, she also has a mother who was determined she should focus on her studies.

So, was “No going out and no boyfriends!” her own mother’s commandment? Dinah chuckles at the suggestion. “Well, she did say to me: ‘No going out!’ I guess she was trying to help me keep a balance, but also keep me focused on graduating. But it was more of a gentle approach than what you see on Hibiscus & Ruthless.

“I did a lot of late-night study and she’d come and pick me up any time. When I was studying at home she would make the cup of tea. She’d do anything around us to give us the opportunity to focus and not be distracted. She was a huge part of how we were able to make it to the finish line and graduate.”

So does Dinah’s future lie in film or engineering?

She says she is keeping her options open. “I’ve put engineering on the backburner for now. Stallone and I have a few more projects we want to push into and really drive over the next five years to see what we can do, and branch out into different parts of the TV and film industry.

“But, saying that, I still love engineering. I still love science, I love all the technical aspects and I still try and keep in touch with PI and Māori engineering student associations. I’ll do anything I can to support them to bring more students into the industry. It’s still in the back of my mind that I might go back into that industry.

“If this film helps to promote Pacific women in engineering just a little bit, then that would be a good thing too.”
By the end of 1918, 720 former students (five of them women) of what was then Auckland University College had left New Zealand to serve in the “Great War”. One hundred and thirty-seven never returned.

Many were graduates with careers and families. Others went straight from lectures to training camp, abandoning university to serve King and country.

One was my great uncle, Lionel Murray Hughes. He studied for a BSc at Auckland in 1915 and 1916, but in early 1917 was in camp as a corporal, and was soon promoted to 2nd Lieutenant. At the end of the year, he sailed for Europe on the Maunganui. Three months later he arrived in the Somme and, after just 10 days in the trenches, was killed by a sniper’s bullet, aged 22.

Those are the bare facts of his short life, and death. But family memories and military and university archives tell a lot more.

His next of kin was recorded as his mother, Barbara Hughes of Hokitika. But he hardly knew her. When his family moved south from Northland he was a small boy, and was left behind with his grandmother. His mother only saw him as an adult when she and her two young daughters went to Wellington in 1917 to farewell him on his departure to Europe – and they never saw him again.

Like thousands of other young New Zealanders, he is buried in northern France, under a white marble headstone recording the details of his brief military career.

Apart from farewelling him on the wharf in Wellington, the only link my grandmother, who was nine when he left New Zealand, had with her brother was a letter and a picture book he sent from England before he went to France. It arrived several weeks after his death.

But she preserved his memory through my father, Murray, and my uncle, Lionel. And on 27 March 2018, exactly 100 years after his death, I remembered Lt Lionel Murray Hughes at the Auckland Museum Roll of Honour, where his name is carved along with those of hundreds of other young Aucklanders who never returned.

In Flanders fields the poppies blow Between the crosses, row on row, That mark our place; and in the sky The larks, still bravely singing, fly Scarce heard amid the guns below.

“In Flanders Fields”, John McRae, 1915.

Through Mark’s great uncle, his family has more than a century of connection with the University of Auckland.
Every year the University of Auckland and the University of Auckland Society bestow five Distinguished Alumni Awards to recognise and honour some of the outstanding people who are contributing strongly to the welfare of the world. We are proud to introduce our Distinguished Alumni for 2018.

In fact, on these pages they are introducing themselves through extracts from their interviews with well-known journalist and broadcaster Finlay Macdonald at the annual public “Bright Lights” event, held this year at the Grand Chancellor Hotel in Auckland on 8 March.

Here’s a selection of Finlay’s questions and their answers.

SPEAKING FOR THEMSELVES

Rob McLeod (LLB, 1983), one of New Zealand’s leading tax practitioners.

FINLAY: It sounds like you had quite a Māori upbringing. What are your memories of growing up on the east coast?

ROB: Both my parents were Māori. My dad was a native speaker, born in 1913. He was brought up by his grandparents until he was six. So he was actually brought up by people who were born just shortly after the Treaty of Waitangi was signed. So you can imagine what kind of Māori was spoken in that household.

My father was actually a Tamahori. His surname was Tamahori. And people would be interested possibly to know that when he came back as an officer from the Māori Battalion he found difficulty in getting work in New Zealand. He was a carpenter but was writing away for jobs and not getting much response until his brother-in-law told him to put a Pākehā name on the applications. His paternal grandfather was actually a McLeod, a full-blooded Scotsman but his own father had adopted his mother’s name, Tamahori, so Dad put his paternal grandfather’s name on the applications – which you could argue should have been there in the first place. And he got employed, and then life got a bit complicated – being McLeod at work and Tamahori at home. So he changed his name by deed poll to McLeod.

And one of the things I would say about that generation: they were very, very pragmatic and not that romantic about a name. So dad just changed it. Whereas today there’d be hell to pay.
Jennifer Gill (DipTchg (Primary), 1974), champion of effective philanthropy, CEO of Foundation North.

FINLAY: The City Mission project, right here in downtown Auckland, to which I think you’ve given $10 million, the largest single grant you’ve made from Foundation North. Why was that so significant? Why did it get such a chunk of cash?

JENNIFER: Because I think Auckland’s changed. I moved here 14 years ago from Wellington and when I first came to the foundation, every year the City Mission and other charities, on a particular day, do their own census of rough sleepers. And back then there was something like 130 rough sleepers and the social agencies knew them all by name.

One of my staff went to a conference in San Francisco and was talking about this, and someone at the conference said to her: “If there are only 130 rough sleepers in Auckland why don’t you just buy them a house?” And you know, now we’re buying them a house. But the problem has got completely out of control in the last decade – and we owe it to those people who for no fault of their own have nowhere to live and have multiple really, really complex problems that they’re facing in their lives.

FINLAY: And for those who don’t know, the expansion of the City Mission site, architecturally and in terms of scale, will be very significant.

JENNIFER: It will be beautiful.

Luke Thompson (MFA, 2011), Young Alumnus of the Year and youngest-ever winner of the Walter’s Prize, one of New Zealand’s most prestigious art awards.

FINLAY: One of your works I would like to mention is “The cemetery of uniforms and liversies”. For those who don’t know this work, it featured young black men related to someone who had been killed by the London police. Do you consciously think of yourself as a political artist or is the art simply inherently political?

LUKE: Well, I think of myself as a political being, but I think everybody in this room probably feels like that. And when you’re an artist not only do you have this personal stake but you have to care about what the representation is going to mean for others and that is innately a political act.

That project with the two young Londoners – they both have a maternal ancestor who was killed by the Met. One is the grandson of Cherry Groce, killed in 1985, the figure from the Brixton riots. And one is the son of Joy Gardner, who was killed in an anti-immigration moment in 1993.

So when I made that film of those two young men it’s not so much about honouring the story as looking at how it might pass on in the body and the blood, in the vision.

Because these young men are still as susceptible to what took away their mothers. And they know that.

So we made a film about that. Though nothing happened – since it’s totally silent and they just stare at camera.
Jan Beagle lives and breathes international diplomacy. Our ‘woman at the UN’ – one of five Distinguished Alumni for 2018 – has been recognised for her 40-year career advancing multilateralism and gender equality.

Jan Beagle originally planned to be a lawyer but got “taken by history” and how its lessons could help build a better world. Now one of the most senior figures at the United Nations, based in New York, she graduated from the University in 1974 with a Master of Arts with first class honours in History. It was to be the launching pad for a stellar career in multilateral diplomacy spanning four decades.

In Auckland recently to receive her Distinguished Alumna Award, she paid tribute to the early inspiration she gained from renowned history teachers like Dame Judith Binney and the late Sir Keith Sinclair.

“I became very interested in research and primary sources in particular: how you find patterns in history and how the lessons of the past could inform the future. I found it very exciting.”

Jan went on to work for the Ministry of Foreign Affairs, attracted in part by the chance to be involved in a fascinating period of New Zealand history. “It was a new government, a new Prime Minister (Norman Kirk), and a very new focus on foreign policy away from Europe and the US and towards our own region.”

While at the Ministry she was selected to write speeches for Prime Minister Kirk. “I was 22 and I had just come out with my master’s, and he had little formal education but was probably the most well-read person I had ever met. He could find quotes for speeches from almost anywhere. I still think of him sometimes when I’m writing speeches.”
She spent five years as a delegate in New Zealand’s mission to the United Nations where she quickly demonstrated her versatility and wide-ranging strengths. “New Zealand is a very small player, but it punches above its weight. And if you’re in a small delegation and you’re the most junior one you basically have to do everything.”

She started off working on disarmament at a time when New Zealand was promoting resolutions for a comprehensive test ban and a nuclear free zone in the Pacific; then economic and social development, human rights and a range of political issues. “I was just 25 when I was sent to Cuba. There was a UN committee that was meeting there to decide whether the African group of member states would boycott the Montreal Olympic Games because the All Blacks had toured South Africa. And of course the decision had been taken long before I got there – I was very alone there.

“But years later in Geneva I met the person who at that time was head of the anti-Apartheid movement and most critical of New Zealand. He was by now the ambassador of South Africa to the UN in Geneva and worked closely with us. So there’s a good side to every experience.”

Jan joined the UN Secretariat in 1979 in the Department of Political and Security Council Affairs. She has gone on to hold a number of key positions including Assistant Secretary-General for Human Resources Management (2005-2007), Deputy Director-General of the United Nations Office at Geneva (2008-2009), followed by eight years as Deputy Executive Director of the Joint United Nations Programme on HIV/AIDS (UNAIDS).

In her current role as Under-Secretary-General for Management she leads the overarching management functions of the UN Secretariat, driving change to help the organisation best deliver on its international mandate and vision. The role sees her working with over 40,000 civilian staff and some 100,000 peacekeepers across hundreds of duty stations around the world.

Though Jan still considers New Zealand home and tries to visit every year, her approach has always been international and it should be no surprise that this has spilled over to her personal life.

While still a UN delegate, she recalls trying to persuade the Algerian delegation to sponsor the New Zealand resolution on a comprehensive nuclear test ban treaty. “At that time Algeria had a very different position from New Zealand on disarmament – they were aligned with China and they didn’t like our resolution at all. But subsequently that delegate became my husband.

“The reason why I went to the UN to become an international civil servant rather than to continue as a national diplomat was to combine my personal life with my professional life.”

Some 40 years later Jan and her husband Ali, who has since retired as a diplomat, still live together in New York.

As well as multilateralism, another burning passion in Jan’s career has been her advocacy for gender equality.

At UNAIDS she spearheaded a Gender Action Plan which supports concrete measures to increase gender parity. During Jan’s time at UNAIDS, and through acceleration of her Gender Action Plan, UNAIDS saw a significant increase in female Country Directors – from 27 percent in 2013 to 48 percent in April 2017. Jan led the development of uniquely-designed leadership and mentorship programmes for women, which have been heralded as best-practice examples across the UN system.

Sexual harassment is pervasive across all industries, countries and cultures and clearly the UN is not immune from it.

She is also an International Gender Champion – a member of a global network of 200 female and male leaders established in 2015 to break down barriers and promote gender equality. She has served as the co-chair of the Champions working group on change management and is now a member of the Champions Global Advisory Board. UN Secretary-General António Guterres this year said achieving gender equality and empowering women and girls was the unfinished business of our time; the world’s greatest human rights challenge.

His comments came as complaints emerged of sexual harassment in a number of United Nations agencies, and he has asked Jan to lead a system-wide task force now tackling the issue.

In an interview with Radio NZ, Jan said the international #MeToo movement had shown that sexual harassment is pervasive across all industries, countries and cultures “and clearly the UN is not immune from it”.

As a very large, decentralised organisation with staff of some 185 nationalities and duty stations all over the world, the UN is a complex multicultural workplace. It is imperative to set a clear tone from the top, she says, “which we do have from the Secretary General: zero tolerance. But also that we make clear what the expectations are, and that we put policies and measures in place to ensure we do have a workplace that is inclusive and free of harassment.

“[Sexual harassment] is all about abuse of power and one of the issues that we have to look at is gender parity in the workplace. The Secretary General has made this a priority. We want to have more women in senior decision-making positions because this does definitely change the nature of a workplace.

“We also have strengthened our whistle-blowing policy. And we’ve made it very clear that there will be protection for those who come forward.”

Though there is still more to do, Jan is encouraged by other successes including the achievement of gender parity among the senior-most group of 40 advisors for the first time in the UN’s history; the establishment of clear numerical targets for departments; mentoring for younger women, as well as programmes for women who work in middle management “because that is often a ceiling that is very hard to break through, between middle and senior-most management”. The organisation has also put in place mandatory anti-harassment training.

While leadership and direction will always be crucial, fully achieving gender equality calls for wide buy-in right across an organisation’s staff. “It’s up to each of us, wherever we sit, whatever job we have, to ensure we support other women,” Jan says.

Top left: Jan Beagle with former Prime Minister Helen Clark at the Distinguished Alumni Awards dinner. Both are alumni of the University, have known each other since high school and were colleagues for many years at the UN.
MED SCHOOL TURNS 50

By Linda Bryder

This year marks the 50th anniversary of the Medical School at the University of Auckland. Linda Bryder, professor of history, and her team, are compiling a record of its achievements and challenges, later to be placed as a permanent record on the University’s website.

Students entering the new School of Medicine in 1968 were unanimous that Auckland would be different from Otago (the only other medical school in the country, opened in 1875). Interviewed 50 years later they still clearly remembered the feeling of being a part of an exciting new venture, which created “a real buzz about the place”.

This new school, unencumbered by tradition, came with fresh ideas about medical education.

These ideas were the brainchild of Sir Douglas Robb and Professor Cecil Lewis, described by professor of physiology Jack Sinclair in an interview at the 25th anniversary of the school, as respectively “the father” and “the midwife” of the Medical School.

Dr Robb, a thoracic surgeon with an interest in medical politics, had lobbied the government for two decades for a medical school in Auckland, before the government agreed in 1964. Then, serving on the Senate Advisory Committee, he introduced members to a new report on medical education published in Britain – which stressed that medicine should be a broad degree with students integrated into the wider university for the first three years, to be a “truly university product” (as Robb put it) rather than coming from a trade school.

This concept led to the Bachelor of Science in Human Biology degree, covering the first three years of medical training and based in the Science Faculty. Topics were to include the social sciences, with Robb looking favourably on an American medical school curriculum that included medical history and medical sociology. He shared that broad educational focus with the newly appointed Dean Cecil Lewis, and was undoubtedly influential in his appointment. Lewis, who was dean from 1965 to 1974, hailed from Cardiff and shared with most New Zealanders a great love of rugby. His many talents, as reported in the press at the time, included “being a roustabout in a circus, a water colorist, sculptor, poet, keep-fit enthusiast, and fond of Dixieland jazz”. He had a very distinctive vision for the direction of the medical school, which involved its relationship with the wider community.

Part of his vision included offering Behavioural Science as a subject, to give students insight into human behaviour. He also believed Community Health was integral to a medical school, and complained that medicine was often too concerned with the “horizontal person”, with too little attention paid to those who remained vertical. Reflecting the times, he insisted that the new Department of Community Health “must concern itself with the bomb, pollution, over-population and the promotion of new patterns for inter-relationships among people”. In accordance with his community perspective, he made an unusual appointment as lecturer to Community Health in 1971: Felix Donnelly, a Catholic priest with no medical qualifications.

Students he saw as central to the directions of the new school, encouraging them on the very first day to form a Medical Students’ Association. Two student representatives served on faculty. “It is mandatory,” he told the students, “that you receive a broader education and develop, during the process, qualities of leadership, discernment and wisdom.”

He was strongly in favour of diversity, with 12 of the first cohort of 60 students being women, a much higher ratio than there was at Otago then. He also believed it important to train Māori and Pacific doctors, and introduced a preferential place scheme for that purpose in 1971. Robb and Lewis’s vision was to train good doctors who would also be well-rounded individuals. The careers of many of the graduates of the faculty show how successfully that vision was realised.
The students, then and now

By Derek Dow

There was a common claim at the time when the Auckland Medical School opened that most students came from medical families.

This claim was scotched by the school’s first lecturer and de facto archivist, Graham White: “Some did, but most didn’t,” he reported.

For the 1968 intake, the figure was just over 10 per cent, including two of the six students below, photographed in 1969.

James Church (third from the right) was a fourth-generation New Zealand doctor; his grandfather had been a near-contemporary of Douglas Robb’s at Otago in the 1920s. John Faris (right) was a third-generation medico, with his grandfather, father, uncle and aunt all practising in New Zealand.

Right from the outset students were centrally involved with the evolution of the Auckland Medical School. Innes Asher (left) and Grant Gillett (next to her) were student representatives at the first faculty meeting, held on 17 June, 1970.

Three of the six – Innes, Grant and James – all became academics, with Innes, who topped the graduation list in 1974, first of the cohort to become a lecturer in the Auckland Medical School. She later became professor of paediatrics and head of department from 2002-2016.

We all knew each other and were affected by each other’s ups and downs – it was a much closer personal situation than it would be these days.

Grant, who started out as a neuroscientist, exemplified the lateral thinking which was encouraged at Auckland by obtaining an American patent for a “device for dynamically stabilizing the lamina after a laminoplasty (a surgical procedure to release abnormal pressure on the spinal cord).” He subsequently changed tack and became professor of biomedical ethics at the University of Otago.

The third, James Church, demonstrated the high regard in which Auckland graduates were held overseas when he was granted a personal chair in colorectal surgery at the Cleveland Clinic in Ohio, being named as one of the top doctors in the United States for six successive years. He was acknowledged at home as well, with a University of Auckland Distinguished Alumni Award in 2008.

Ross Boswell (third from the left), who rose to be clinical director of laboratory services at Counties Manukau DHB and chair of the New Zealand Medical Association Council in 2005-6, is another who has shown flair as a lateral thinker. In January and April 2018 he contributed opinion pieces to the New Zealand Herald on alternatives to the proposed Auckland light rail link, utilising existing commuter rail lines and dedicated buses routed through Puhinui Station.

Anne Bollard (second from the right), the daughter of an eminent New Zealand plant scientist, was regularly interviewed as a student by the local press, keen to assess whether women doctors would “stand the pace” and if marriage would end their careers. Anne confirmed in 1970 that “None of us is against marriage” and she was one of two students to marry before graduation, a development which did not hamper her career as a GP.

John Faris (right) carved out a career in two niche markets, dive medicine and aviation medicine. When Auckland medical professors Sir John Scott and Des Gorman produced a report on determining fitness to fly aeroplanes in New Zealand (2001), John was highly recommended as one of two appointees for the initial three-year term.

All were high fliers in their own way, along with many of their contemporaries from the 1968 intake. As Professor Innes Asher commented in 2017: “We all knew each other and were affected by each other’s ups and downs and so on – [it was a] much more close personal situation than it would be these days with such large classes. [With] 280, or 290, you can’t have that intimacy.”

Photo left: Left to right, photographed in 1969, are Innes Asher (now professor of paediatrics in the School of Medicine at the University of Auckland), Grant Gillett (now professor of biomedical ethics at the University of Otago), Ross Boswell (now a specialist in pathology and internal medicine in Auckland), James Church (now on the staff of the Department of Colorectal Surgery at the University of Cleveland), Anne Bollard (who went into practice as a GP) and John Faris (who carved out a career in dive medicine and aviation medicine).

Photo top right: Grant Gillett addresses fellow students.
Meet Kanaway Yusingco, our Volunteer Alumni Coordinator (VAC) in London.

Kanaway came to the University to study for a Bachelor of Arts degree, double majoring in Psychology, and Employment Relations and Organisation Studies. After completing her degree in 2001, she went on to study Organisational Change and Innovation at honours level.

Among her favourite memories from her student days are the professors. “They really did teach me so much,” Kanaway reflects. “They also took the time to take an interest in my individual development.”

Kanaway recently established her own start-up called “Uniquely Wired”. Her company helps clients to identify what makes them unique and how they can stand out from their competitors, working alongside them to develop and implement a go-to market strategy and build sustainable growth.

As founder and managing partner, Kanaway focuses on advancing the consulting and recruitment sides of the business. She is also involved in a social enterprise initiative to help those from disadvantaged backgrounds to secure work. “To be honest, I could not have predicted the journey and can’t wait to see it all continue to unfold,” she says. “It has been an adventure, and both the Kiwi can-do attitude and the lessons I was taught at the University have been great foundations.”

Kanaway encourages new graduates to be open-minded about their career plans. “I think it is best to simply be flexible, trust your judgement and have fun along the way!”

She would love to hear from alumni based in London. Get in touch with her at kanaway.yusingco@uniquelywired.com or on LinkedIn: www.linkedin.com/in/kanawayyusingco/

Raising the Bar, Round 2:
20 talks, 10 bars, 1 night

In 2017 our enormously successful “Raising the Bar” event packed out bars across Auckland city and took education outside of the lecture theatre. All 20 talks sold out and more than 1,400 people attended on the night. Back by popular demand, Raising the Bar is returning for Round 2 in 2018.

Once again 20 of the University’s top researchers and academics will fill inner-city bars for entertaining, thought-provoking discussions on a range of topics affecting our everyday lives. Join us to raise the bar in 2018 and make education part of Auckland city’s popular culture. Sign up to the RTB newsletter at www.rtbevent.com to ensure you receive the latest updates.
ALUMNI NETWORKS

We have a number of alumni networks spread across the globe to link over 190,000 alumni. These networks bring together Auckland graduates and encourage lifelong connection with the active life of the University.

Auckland-based alumni networks
• The University of Auckland Society
• Chinese Alumni Club
• MBA Alumni Club
• Māori Alumni Club

International alumni networks
Our international alumni networks are run by Volunteer Alumni Coordinators (VACs) of which we have 45 in more than 30 cities! Some of these include groups in:
• Australia
• North America
• United Kingdom
• Asia

If you’re looking to create or refresh networks with alumni in your area, details can be found on our website www.alumni.auckland.ac.nz

UPDATE YOUR DETAILS AND BE IN TO WIN A $1000 TRAVEL VOUCHER

Been dreaming of an autumn getaway before the worst of winter strikes? Go into a $5,000 travel prize pool when you update your details by 31 July 2018. We have five $1000 vouchers to be won, thanks to the University’s chosen travel provider, the House of Travel Parnell.

By updating your details you will be able to keep abreast of events in your area, receive news about the University and fellow alumni and reap the benefits and services that come with being an Auckland graduate. Stay connected and visit www.alumni.auckland.ac.nz/update

SCHOOL OF MEDICINE 50TH ANNIVERSARY

This year the University’s School of Medicine (now the Faculty of Medical and Health Sciences) celebrates its 50th anniversary with events throughout the year, culminating in an Alumni Reunion Weekend in Auckland, 5-7 October. Reunion celebrations will also be held in New York, 28 June, and London, 30 August. To RSVP or for further information, contact Ruth Thomas, FMHS Alumni Reunion Coordinator, E: r.thomas@auckland.ac.nz, T: +64 9 923 1450

2019 DISTINGUISHED ALUMNI AWARDS

Nominations are now open for the 2019 Distinguished Alumni Awards. The University of Auckland and the University of Auckland Society bestow these annual awards to honour alumni who have made outstanding contributions through their different achievements to their professions, to their communities and globally.

To find out more about previous winners, to see photos and videos from past events and to submit nominations, visit www.auckland.ac.nz/daa.
Nominations close 22 June 2018.
WHAT LIES BENEATH?

Usually our first encounter with a new book is on the shelf at the bookstore.

But here’s a rare chance to see a visual record of some of the events that helped to shape a book before its publication. The images are supplied by the author, Tess Redgrave, who completed her Master of Creative Writing at the University of Auckland in 2015 and whose first novel, *Gone to Pegasus*, was published in April by Mākaro Press.

The photo above is of Pegasus Bay, the remote part of Stewart Island that provided Tess’s first spark of inspiration for the novel (as well as being featured in an earlier non-fiction book called *Going the Distance*). The image to the right shows Dunedin as it was around the time in which the book was set. The growing friendship between the two main characters becomes bound up with the growing momentum of the women’s suffrage movement which reached its peak in 1893 when New Zealand became the first country to grant women the vote. The building is Seacliff, a psychiatric hospital which also plays a part in the novel. On the facing page are two of the preliminary sketches for the cover, designed by Anna Crichton.

The young man pictured was one of three taken from the internet by Tess and used to activate her imagination as she created the characters who came alive as the action advanced in *Gone to Pegasus*.

To find out more about the novel and about the Master of Creative Writing degree, watch an interview with Tess on www.ingenio@auckland.ac.nz.

From *Gone to Pegasus*: “She was plunged back to another time when she had felt this angry. It was Port Pegasus at Stewart’s Island, with William lodged below in the SS Invercargill’s bunk. He had stayed below the whole time they were berthed at the remote port. Keep going. Grace’s listening spurred her on. Be angry. She thumped the keys.”
Left is a portrait of Nikola Tesla (1856-1943), known for his contributions to the design of the AC electricity supply system and used by the author as inspiration for one of three male characters who figured strongly in the novel.

From Gone to Pegasus: “He was tall, his dark hair parted neatly in the middle and a clipped mustache framing his mouth. All his features were fine and well-formed. As he observed her, she felt herself pulled into his orbit, his grey-blue eyes locking onto hers.”

“This is impossible. Grace cannot sit still as the joyous notes of Chopin’s ‘Heroic’ Polonaise spring from Eva’s fingers. She stands and sways from side to side. Soon she has strayed away from the piano. Her arms rise and arch into the air, wrists swirling.”

“At the bottom she turns to face the towering gothic building. With ornate turrets projecting from every corner it stretches further than any building she has ever seen. At its centre a spired tower points into the sky. But a lone, haunted cry from within is a sharp reminder of the building’s utilitarian purpose and of the nearly 500 patients who reside there.”

Photo National Archives

Hocken Collections, Uare Taoka o Hākena, University of Otago. S18-048a Dunedin from the Town Hall Belfry c.1890s, J.R. Morris photographer. Box-169-002
THE BACH AS METAPHOR

Francis and Juliet bought the bach in the 1960s and with it a kiwi dream of escape and freedom. But they abruptly separated not long after, and now, after 40 years, the bach has jumped into the present.

When Juliet’s son asks if she would let her ex-husband stay in the bach for a six-week gathering, she feels challenged. But her answer leads to a year of surprises as the bach is transformed, memories are loosened and the pattern of a life is revealed.

In this rich, engaging and inspiring memoir, the bach becomes a metaphor for the transformations in the author’s life.

A Bach for All Seasons: A love story is written by alumna Juliet Batten and published by Ishtar Press. Juliet is an Auckland artist, teacher, mentor and creativity coach who has a PhD in English, worked as a psychologist for 30 years and has written many previous books.

NIGHTS OUT WITH DEAD RUSSIAN POETS

Not only those uneasy nights out but also dalliances with German gasfitters and emotionally fraught games of badminton are brought together for the first time, along with a brand new body of work in this selection of poetry by University alumnus Anna Jackson.

Local gothic, suburban pastoral and answerings-back to literary icons are all enhanced by Anna’s light hand and sly humour in Pasture and Flock: New and selected poems, published in 2018 by Auckland University Press.

Pastoral yet gritty, intellectual and witty, sweet but with stings in their tails, the selected poems and sequences collected in this volume are essential reading for admirers of Anna Jackson’s slanted approach to lyric poetry.

UNCERTAIN FUTURES FOR HIGHER EDUCATION

Since the 1990s, universities have been subjected to continuous government reforms, with the aims of making them “entrepreneurial”, “efficient” and aligned with the predicted needs of a global knowledge economy.

Under increasing pressure to pursue “excellence” and “innovation”, many universities are struggling to maintain their traditional mission to be inclusive, improve social equality and act as the “critic and conscience” of society.

This collection, Death of the Public University: Uncertain futures for higher education in the knowledge economy, analyses the new landscapes of public universities emerging across Europe and the Asia-Pacific. It is edited by Cris Shore, professor of anthropology at the University of Auckland, and Professor Susan Wright from Aarhus University in Denmark. Many of the contributing authors are from the University of Auckland.

HEALING THROUGH MUSIC

This book’s title is self-explanatory, Tales from the Music Therapy Room: Creative Connections. However, its contents is surprising, bringing together music therapists from around the country to engage the readers to share the poetry of their encounters in the therapy room.

Originally published as Only Connect: Poems and Stories from New Zealand Music Therapy, the book was edited by Claire Molyneux and supported by the Erika Schloss Fund, Music Therapy New Zealand. This new edition is to be published by Jessica Kingsley Publishers.

Included are poems about the University of Auckland’s Centre for Brain Research’s CeleBRation Choir for people with communication difficulties, written by professional staff member and PhD student, Alison Talmage, alumna Shari Storie (both music therapists) and choir participant Roger Hicks.

AN INVITATION TO PLAY

In her new book, The Infinite Game: How to live well together, psychologist Professor Niki Harré from the Faculty of Science addresses some profound and provocative questions about what our lives mean and what is important to us.

As we build our CVs or property portfolios, or help our children grow and develop, we are most often following rules, aiming for goals, trying to win: we are playing society’s finite games.

But what if life is not a test match but is more like a game of beach cricket — one in which playing matters more than winning, a game that anyone can join and that people can play well together?

Informed by psychological research, Niki Harré’s intriguing book, published by Auckland University Press, teaches readers how to play the infinite game. It is available in print and as an eBook.

PSYCHOLOGY TO SAVE OUR EARTH

Here’s a guide for those who are doing what they can to save the world in their own way.

Niki Harré’s book, Psychology for a Better World: Working with people to save the planet, is aimed at the office manager who buys Free Trade coffee, the teacher who updates his or her class on the latest climate change negotiations or the city councillor who lobbies for cycle lanes.

It is based on the latest research and theory in psychology. Drawing on positive emotions, role-modelling and social identity, Niki Harré shows which strategies work, which don’t and why.

Both Niki Harré’s books are published by Auckland University Press in 2018.
Unknown unknowns

By Anna Jackson

Maybe one day we will even teach in schools, along with Homer again and the Aeneid, the equally complex songs of the whale, graduate students composing theories about the mysterious bass shift in song latitude 61° longitude 15° towards the end of 1971 – still, we will never know the secret song the whale sings to himself, the heretic variations, the secret pleasures he allows himself in the silence and the dark; any more than the poet's biographer, revealing everything he's told, accounting for contradictions in accounts, gaps in the paper trail, can know where the poet goes at night when even his wife, lying beside him in the dark, can't know where he goes in the privacy of his mind; any more than we can know what other worlds God might have dreamed up too secret, too sentimental, too erotic to be manifest in the universe of dust and light; any more than we can know it isn't this one after all that is the imaginary world, too sentimental, too beautiful, too privately pleasurable really to be real.

This poem is taken from alumna Anna Jackson's first stand-alone volume of poetry, The Long Road to Teatime, published by Auckland University Press and reprinted with permission from the author and the publisher. David Larsen in the Dominion described Anna Jackson's poems as "bone carvings made from the remains of short stories: gripping narratives reduced to the purest, most elegant minimum." For news of Anna's latest book of poetry, see the facing page.
Leaders adapt to new challenges

Leadership Development Programmes now available:
www.exec.auckland.ac.nz