

\$1 BILLION RAISED

FIGHTING CANCER

HELP FOR STUDENTS IN NEED

THANK YOU

DISCOVERY

A billion possibilities

INNOVATION

GENEROSITY



THE UNIVERSITY OF SYDNEY

\$460 MILLION FOR RESEARCH

A GREENER FUTURE

64,000+ DONORS

Stories from the University of Sydney's
INSPIRED philanthropic campaign

A billion possibilities



THE UNIVERSITY OF
SYDNEY



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\$1 BILLION
FROM MORE THAN
64,000 DONORS
SUPPORTING
MORE THAN
4000 CAUSES

INSPIRED

The campaign to support
the University of Sydney

From the Chancellor and Vice-Chancellor

THERE ARE A BILLION reasons to celebrate as the University of Sydney's INSPIRED philanthropic campaign comes to a close. Most of those reasons have little to do with dollars and cents.

Through the course of the campaign, more than 64,000 people have donated a total of \$1 billion, supporting University research and programs to improve health care, help disadvantaged people access education, safeguard the future of the planet and much more. The campaign is the largest philanthropic effort in Australian history. We're proud of that achievement, but we're even prouder of what it represents: our community's unwavering belief in the crucial work the University does, transforming the world through research and education.

Your support has created a billion possibilities. Across campus and beyond, your generosity is helping our students and researchers as they strive to shape a better future. In this publication celebrating the close of the INSPIRED campaign, you'll read about some of the things that you, our donors, have made possible.

There's the clinical trial of a use-at-home asthma device designed to warn sufferers of imminent flare-ups. That research could be a lifesaver for the 400 Australians who die from asthma each year (page 20).

Then there's the John Grill Institute of Projects (page 56), which equips leaders and executives with

the knowledge they need to deliver major projects in fields ranging from technology to infrastructure. This initiative has helped shape more than 500 leaders across 12 government agencies and eight industry areas as they work on \$60 billion worth of projects.

Or take the 14 disease-free Tasmanian devils our researchers discovered on a crowdfunded expedition to a remote patch of the island state's wilderness. These animals represent a new genetic variant of the species that could prove key to saving it from extinction (page 26).

And, of course, there are the thousands of students who could never have attended university without the support of donor-funded scholarships. Their stories of effort and achievement in the face of adversity are a powerful reminder of why philanthropy matters (page 48).

Every gift to this campaign has contributed something important to the University and the world beyond. Our billion-dollar target was never a destination for its own sake, and reaching it isn't really an ending. The INSPIRED campaign is part of the ongoing story of this remarkable institution and the people who believe in it. We are so grateful for your support, and look forward to continuing our work with visionary donors to make extraordinary things happen.

Thank you, from all of us.



Belinda Hutchinson

Belinda Hutchinson AM (BEC '76), Chancellor

Michael

Dr Michael Spence AC (BA '85 LLB '87),
Vice-Chancellor and Principal

Since the INSPIRED campaign began, the University of Sydney's donors have given a billion dollars to support research and education. Here, we trace some key steps in the journey.

The **INSPIRED** philanthropic campaign to support the University begins.

THE CAMPAIGN'S INITIAL AIM IS TO RAISE \$600 MILLION BY 2017 - A TARGET SO AMBITIOUS MANY DOUBT IT CAN BE REACHED.

The road to a billion dollars

2008

“Sydney is immensely fortunate to have a large and growing number of supporters. Their generosity runs contrary to the common perception that Australia lacks a philanthropic culture.”

DR MICHAEL SPENCE
Vice-Chancellor and Principal

A \$10 million donation from Greg Poche and Kay Van Norton Poche establishes a centre for Indigenous health at the University, with outreach clinics across NSW. Today, the Poche Centre for Indigenous Health works in partnership with 27 Aboriginal communities, delivering services such as dentistry, cardiology and nursing. The centre also provides training for Indigenous health practitioners, and supports them to work in their own communities.

An anonymous donor arrives at the University with a Picasso painting wrapped in a plastic bag. The work, **Jeune Fille Endormie**, is donated on the condition that it be sold, with the proceeds directed to research. Its **\$20.7 million** selling price has funded four research chairs, supporting work in nutritional ecology, metabolic systems biology, psychology and translational metabolic health.

“When you own a valuable painting like this, it sort of owns you back. For the first time in a long, long while, I finally feel free.”

ANONYMOUS
Picasso donor

↓ Jeune Fille Endormie, Picasso



2010

2012



Warren Halloran’s major gift establishes the Henry Halloran Trust, which supports multidisciplinary research in urban planning, sustainable development and land management. Over the years, Halloran has given **\$10 million to the trust**, which is named for his father, an influential figure in property development and urban planning in NSW in the late 19th and early 20th centuries.

On stepping down as CEO of engineering company WorleyParsons, **John Grill donates \$20 million to establish the John Grill Centre for Project Leadership**. The centre works to hone the skills of senior executives across a range of industries, helping them to lead major projects that benefit society and deliver economic value.

The campaign receives its largest ever bequest – **\$15 million from the late Elwin à Beckett**, who dedicated the bulk of her estate to research into bowel cancer. The bequest supports early- and mid-career researchers including Dr Erin Shanahan, who is investigating the relationship between bowel cancer and the gut microbiome.

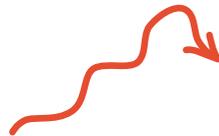
The University's first annual giving day, **Pave the Way**, raises **\$932,964 from 1058 donors**. Since then, Pave the Way has gone from strength to strength. At the 2018 event, more than \$2 million was raised from donations by more than 4000 people.



2013

2014

2015



Dr Chau Chak Wing gives \$15 million to fund a new museum for the University's collection of art and artefacts, including the pictured red granite depiction of the goddess Hathor. The Chau Chak Wing Museum is currently rising from the ground on University Avenue.

A \$33.7 million gift from Barry and Joy Lambert establishes the Lambert Initiative for research into the medical applications of cannabis. The Lamberts were inspired to make the donation after granddaughter Katelyn found relief from epileptic seizures through cannabis-based medicine.

THE INSPIRED CAMPAIGN REACHES ITS INITIAL \$600 MILLION GOAL TWO YEARS EARLY. THE TARGET IS INCREASED TO \$750 MILLION, THEN, AFTER THAT GOAL IS ALSO SURPASSED, TO \$1 BILLION.

The Susan and Isaac Wakil Foundation donates \$35 million – the largest gift of the campaign – to fund a purpose-built facility to house the health disciplines. It is the Wakils' second major gift to the University, following a \$10.8 million gift to nursing scholarships in 2015.



“There is strong faith in the community in the work the University does. This is evident in the generous support we have received from donors all over the world.”

DR MICHAEL SPENCE
Vice-Chancellor and Principal

2016

2018

2019

A \$10 million gift establishes the Dr Liang Voice Program to support research, education and training in the field of laryngeal and voice conditions. The program sees speech pathologists, surgeons and other specialists collaborating to reduce the debilitating effects of voice disorders.

A transformative donation from Sydney architecture alumni Garry and Susan Rothwell establishes the Garry and Susan Rothwell Chair in Architectural Design Leadership. The Rothwells' gift will foster architectural innovation, experimentation and discovery through research and education.

ON 30 JANUARY 2019, A SECOND GIFT FROM JOHN GRILL BRINGS THE CAMPAIGN TO ITS BILLION-DOLLAR TARGET. THE UNIVERSITY OF SYDNEY BECOMES THE FIRST UNIVERSITY IN AUSTRALIA TO RAISE \$1 BILLION THROUGH PHILANTHROPY.

John Grill's second multimillion-dollar gift will support the creation of the John Grill Institute of Projects. The institute will incorporate aspects of the John Grill Centre and draw on the Faculty of Engineering and IT's Project Management Program.

LAUNCH
THRIVING
STUDENT
START-UPS

SEND MORE
THAN 23,000
HEALTH KITS AROUND
THE WORLD

CREATE MORE
THAN 2000
SCHOLARSHIPS

ESTABLISH A
MATHEMATICS
RESEARCH
INSTITUTE

WHAT CAN
YOU DO WITH
A BILLION
DOLLARS?

RESTORE
SYDNEY'S
HARBOUR'S
OYSTER REEFS

GUARD CROPS
AGAINST
DISEASE

INSPIRE
SCHOOL STUDENTS WITH
SHAKESPEARE

DEVELOP MORE
THAN 10
STATE-OF-THE-ART
BUILDINGS

The University of Sydney's billion-dollar INSPIRED campaign is the most successful philanthropic effort in the history of Australian higher education. But that's not the campaign's most important achievement. What matters most is how the generosity of our supporters is changing lives and shaping the future. What can you do with a billion dollars? As it turns out, quite a lot.

CREATE MORE THAN 2000 SCHOLARSHIPS

Scholarships give our students the chance to shine. Across every faculty, donor-funded scholarships have supported those who would otherwise be unable to attend university (see story, page 48).

DEVELOP MORE THAN 10 STATE-OF-THE-ART BUILDINGS

Gifts to the campaign have literally changed the shape of our campus, funding the construction of new spaces for research and learning, including the Charles Perkins Centre, where researchers are tackling dangerous lifestyle diseases, and the soon-to-be-completed Chau Chak Wing Museum.

ESTABLISH MORE THAN 35 ACADEMIC CHAIRS

Academic chairs are the superstars of the research world – the University's top specialists in their fields. Thanks to donor support, we've employed world-leading researchers in fields ranging from archaeology to childhood medicine. The chairs drive excellence in research and teaching, mentor academic colleagues and ensure that findings in their discipline make an impact in the world beyond the University.

ESTABLISH A MATHEMATICS RESEARCH INSTITUTE

The Sydney Mathematical Research Institute is the first of its kind in Australia, drawing leading mathematicians

from all over the world to do research with Australian collaborators. The institute is possible thanks to the support of the Simon Marais Foundation, the Hooper Shaw Foundation, and Dr Philipp Hofflin and Associate Professor Rebekah Jenkin.

ENRICH THE CAREERS OF 963 SCHOOL TEACHERS

The philanthropically funded STEM Teacher Enrichment Academy trains primary and secondary school teachers to get their students excited about science, technology, engineering and mathematics. More than 194 schools have participated, equipping nearly a thousand teachers with the tools they need to motivate and inspire their students.



GIVE 307,459 SCHOOL STUDENTS A TASTE OF UNIVERSITY LIFE

The generosity of donors has made it possible for the Widening Participation and Outreach program to bring hundreds of thousands of students from low socioeconomic backgrounds onto campus to attend mock lectures and experience what it's like to study at university. The program inspires many to pursue a tertiary education.

GUARD CROPS AGAINST DISEASE

Professor Robert Park is the Judith and David Coffey Chair of Sustainable Agriculture – a position named for the donors who established it with a \$4 million gift. Park's team works to

breed disease-resistant crops, saving the Australian wheat industry more than \$600 million a year.

LAUNCH THRIVING STUDENT START-UPS

The Inventing the Future program brings students from various faculties together to create commercially viable products that address the world's problems. The program, supported by the Alexander Gosling Innovation and Commercialisation Fund, has helped create student businesses that are attracting millions in investments and grants. Our student entrepreneurs are finding technological solutions to problems in industries ranging from health care to agriculture.

ILLUMINATE THE 160-YEAR-OLD GREAT HALL

Lighting engineer Professor Barry Webb was sitting in the Great Hall, watching his granddaughter receive a scholarship, when it occurred to him that the space's century-old lighting technology could do with an update. He produced a proposal and, thanks to a \$600,000 donation from the family of Dr Charles Warman, the work began soon afterwards. The new lighting shows off the hall's historic features and makes it a more versatile space.

BREAKTHROUGH SURGERY ON ONE LUCKY DOG

Millions of dogs die every year because of a heart condition known as mitral

valve disease. Prince, a 10-year-old Cavalier King Charles Spaniel, was saved by Australia-first open-heart surgery at the University's Veterinary Teaching Hospital. This important milestone was funded by donor Lian Kille, whose own dog died of heart failure.

SEND MORE THAN 23,000 HEALTH KITS AROUND THE WORLD

Wash cloths, deodorant, toothbrushes and first-aid supplies – most of us take such things for granted, but for people in need, they can make a huge difference. With help from donors and volunteers, the University of Sydney Susan Wakil School of Nursing and Midwifery has sent health kits packed



with useful supplies to rural NSW, Papua New Guinea and Central Africa. The kits allow women to give birth in hygienic conditions, assist remote Indigenous communities and help get the homeless back on their feet.

SUPPORT INDIGENOUS HEALTH PRACTITIONERS

The University's Poche Centre for Indigenous Health, established thanks to a \$10 million donation from Greg Poche and Kay Van Norton Poche, works with Indigenous communities to improve healthcare services. Through scholarships, the centre has supported the studies of more than 400 Indigenous healthcare practitioners, and created pathways for them to work in their communities.

RESTORE SYDNEY HARBOUR'S OYSTER REEFS

A team of marine scientists, led by University researchers, is working to restore Sydney's oyster reefs in a project funded by a donation from the Maple-Brown Family Foundation. Oyster reefs can improve water quality and create hotspots for biodiversity. The restoration of a single hectare of oyster reefs will deliver economic benefits of more than \$350,000.

INSPIRE SCHOOL STUDENTS WITH SHAKESPEARE

The LINK Project brings English to life for high-school students around NSW. Entirely donor-funded and

boosted by a major gift from the Nelson Meers Foundation, the project puts on live performances of Shakespeare's plays and provides mentoring for those struggling with English.

SPONSOR 59 AUSTRALIAN ARTISTS TO LIVE AND WORK IN PARIS

Each year, the Power Institute, the University's foundation for art and visual culture, offers a fellowship that gives Australian artists the time and space to create new work while living in Paris. Terrence and Lynette Fern have supported the fellowship for the last four years. The program has helped

create work that has been exhibited around the world.

TRAIN 500 VIETNAMESE NURSES AND DOCTORS

In Vietnamese, *hoç mõi* means "forever learning". It's a fitting name for the University's Hoç Mõi Foundation, which provides training for Vietnamese clinicians to improve the standard of health care in their homeland. Thanks to donor support, Vietnamese students can travel to Australia and learn from working doctors and nurses. The program's graduates bring home knowledge that benefits both patients and future clinicians.

“

**THE CROWDFUNDED EXPEDITION TO
TASMANIA'S SOUTHWEST GAVE US
THE FIRST EVIDENCE THAT THERE ARE
DEVILS DOWN THERE AND THOSE DEVILS
DON'T HAVE DISEASE. THAT'S HUGE.**

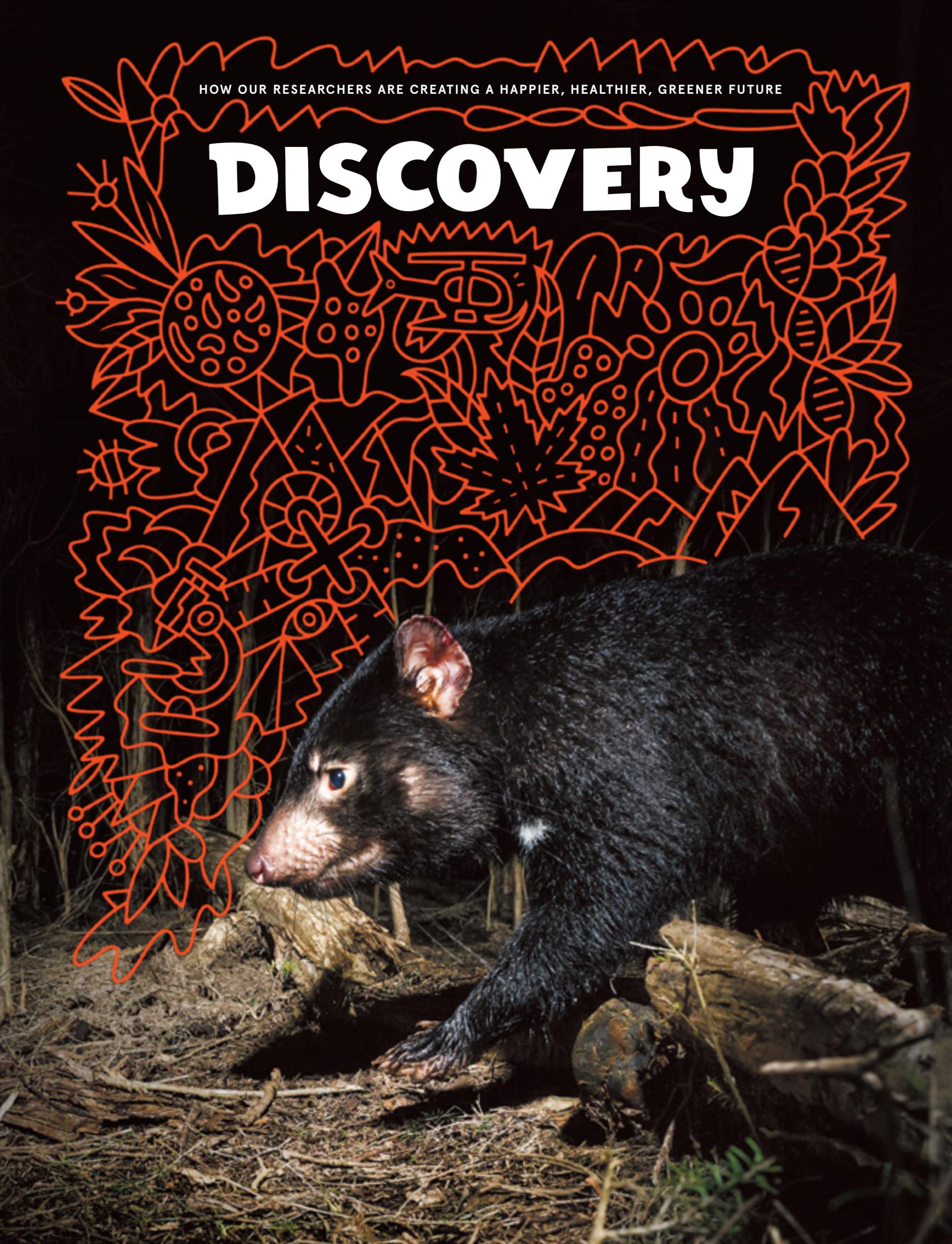
—

DR CAROLYN HOGG
Research Manager,
Australasian Wildlife Genomics Group

SEE STORY PAGE 26

HOW OUR RESEARCHERS ARE CREATING A HAPPIER, HEALTHIER, GREENER FUTURE

DISCOVERY





Photograph courtesy of Australian Broadcasting Corporation Library Sales

THANKS TO

\$1.5 million from an anonymous donor,
we're leading a robot revolution
in agriculture.

ROBO-CROP

A new breed of robots is set to transform agriculture, helping farmers survive and thrive.

ROD KATER HAS SEEN weeds grow into thorny webs the size of tennis courts, choking whole paddocks on his cattle farm near Nevertire in central-west NSW. African boxthorn is a spiky weed so destructive and difficult to kill that Kater usually brings in a bulldozer to raze it to the roots before adding poison. Soon, though, there could be an easier way, thanks to University of Sydney robotics researchers and the anonymous donor who supports their work.

Researchers at the University's Australian Centre for Field Robotics are developing new technology to transform agriculture. Professor Salah Sukkarieh and his team have invented robots to tackle tasks from weeding and pest control to taking care of cattle. Their silent partner in this endeavour is the anonymous donor who in 2015 gave \$1.5 million to support a project called Farmbot for the People. The goal is to create robots so compact, affordable and easy to operate that even smallholder farmers will be able to use them.

"Every farmer is going to have one," Sukkarieh says. "It's about using technology to provide the kind of help that will keep smallholder farmers on their land."

Thanks to the philanthropic backing, Sukkarieh has developed two robotic platforms that could help farmers all over the world. The first, Digital Farmhand, is a small, tractor-like robot that can be adapted for tasks such as seeding, spraying and weeding. The second is SwagBot, the world's first robot designed to work with grazing livestock. With its four wheels on stilt-like legs, SwagBot can herd and monitor animals, and fight weeds on the rough terrain common in Australian cattle country.

On a fine day in 2017, Sukkarieh and his team brought SwagBot to Nevertire to test it against Kater's boxthorn infestation. The researchers had armed the robot with spray and programmed it to wheel through parts of the farm affected by boxthorn and other weeds. SwagBot, guided by its onboard GPS, trundled through a paddock, seeking out weeds and sending precisely targeted jets of spray straight to their trunks.

"That's got great possibilities," says Kater, recalling the trial on his farm. "SwagBot can automatically recharge its batteries with solar, so it can spend all day mooching about, killing weeds ... It's new and potentially pretty revolutionary."

Sukkarieh's battery-operated and solar-electric robots offer a potential solution for the labour shortage in agriculture. What's more, they will help farmers identify problems with crops and livestock, and tackle them in a more targeted way. Digital Farmhand, for instance, can combine smartphone technology with artificial intelligence to find pests and spray them automatically, targeting only affected crops. This precision approach will mean farmers can act quickly and use less spray, increasing yields and caring for the environment while saving time and money. "I want to put technology on the farm that makes farming more sustainable, cleaner and healthier for all," says Sukkarieh.

That dream will soon become a reality. This year, the research spawned a start-up, Agerris, backed by \$6.5 million in seed funding from Uniseed, Carthona Capital and BridgeLane Group. The company will start producing robots for commercial use and hopes to have them working on farms within a year.

Globally, food security is a pressing concern. Sukkarieh believes his robots can help. With support from their philanthropic backer, as well as funding from the Australian Government, the team has taken Digital Farmhand to Indonesia, Samoa and Fiji, testing the technology and assessing its viability as a tool for locals.

The results are promising. Digital Farmhand's simple, modular design and readily available parts make it accessible for farmers globally. "The technology is not the end goal," says Sukkarieh. "The end goal is understanding what people need from the technology."

There is more work to be done before robots on farms are a common sight, but Sukkarieh believes they will one day be as ubiquitous as tractors. "Ten years ago, people thought there was no way this could work," he says. "Now we've got interest from all over the world. From the farmer's perspective, the attitude has changed from, 'this will never take off' to 'when can I get one?' It's an exciting time." *

GLOBAL FOOD SECURITY



Developing countries in the Pacific must **double food production by 2050** to feed their growing populations. Our robots could help.



**“It can spend all day mooching about,
killing weeds ... It’s new and potentially
pretty revolutionary.”**



ROD KATER
Farmer

Clockwise from top left: Digital Farmhand; RIPPA, a robot for the vegetable industry;
SwagBot, the world’s first robot to work with grazing livestock; Professor Salah Sukkarieh.

A gift in memory of a beloved daughter is funding research that could help save others from her tragic fate.

The battle *for* breath

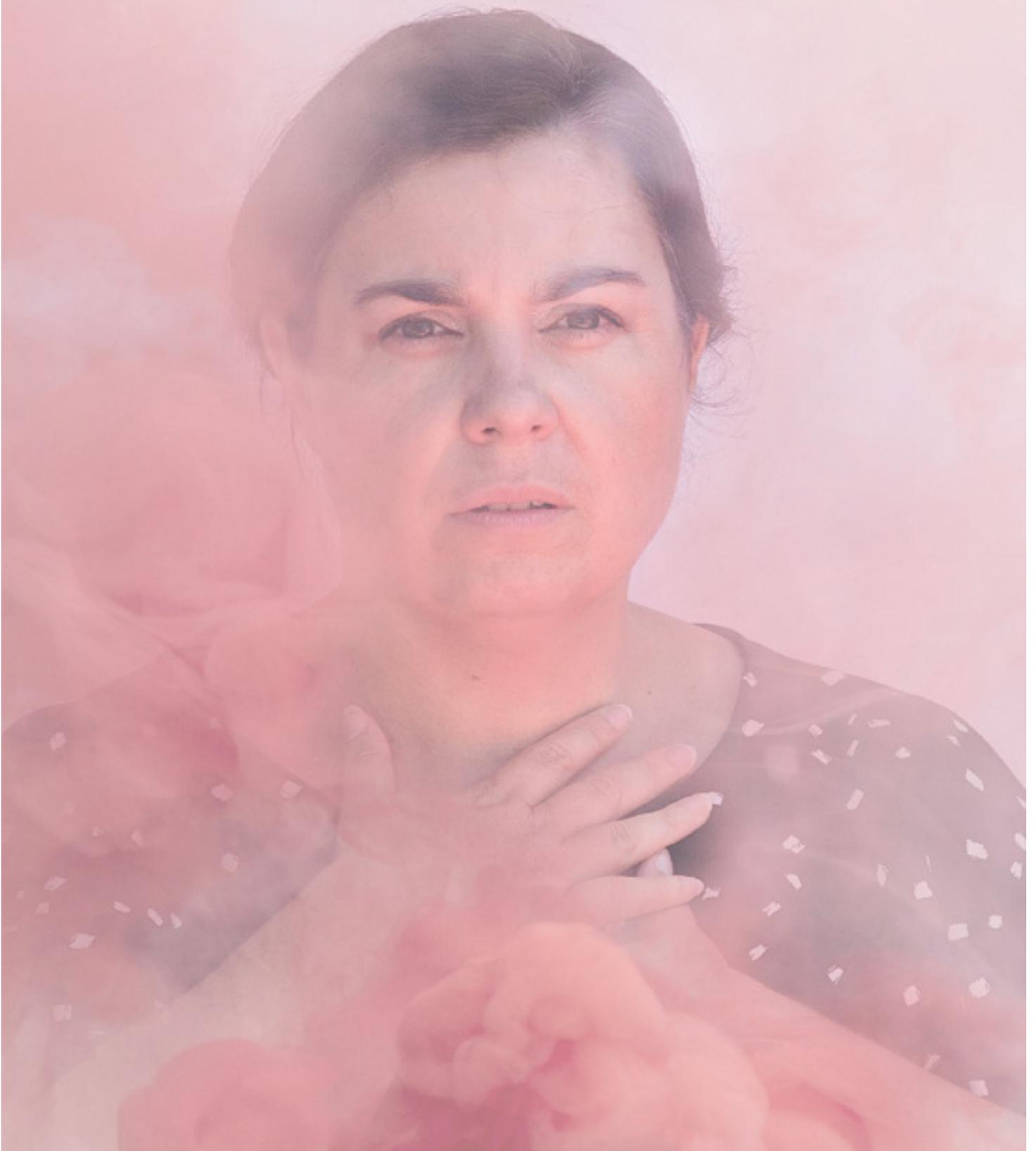
AFTER THE DEATH of his wife, John Notaras kept such a careful eye on his two daughters that his eldest, Thea, used to call him “Mother Hen”. Thea was nine and her sister Melanie eight when their mother died, leaving their father alone to care for them. He was particularly protective of Thea because she suffered from severe asthma, which seemed to grow worse after her mother was gone.

Thea’s respiratory arrests would leave her blue from lack of breath. On at least 20 occasions, her father saved her life with mouth-to-mouth resuscitation. “But then,” he says, “on the 21st time, I wasn’t there.”

Thea Notaras died on 10 September 1988, two weeks shy of her 17th birthday. She had an asthma attack while out with friends. Her father had asked her that morning if she had checked her peak flow meter, a handheld device asthmatics use to monitor their condition by measuring airflow from the lungs. “She said, ‘yeah, yeah’ and off she went,” he says, remembering the day. When Thea came home feeling unwell, there was no-one else in the house. By the time her sister came home and called an ambulance, it was too late.

THANKS TO

a father's donation in memory
of his daughter, we're helping
asthma sufferers breathe easy.



Asthma kills approximately 400 people in Australia every year. Of those deaths, more than two-thirds could be prevented with treatment and care.

Notaras hopes to help shield others from the kind of tragedy he endured. He has donated \$335,000 to support asthma research at the University of Sydney and the Woolcock Institute of Medical Research. His gift is funding a clinical trial of technology that could save lives by warning asthma sufferers of imminent flare-ups.

The study, led by Professor Greg King, has seen 53 people with asthma testing a new use-at-home device to monitor lung function. As patients breathe into a mouthpiece, gentle soundwaves probe their lungs – a technique called “forced oscillation”. Digital technology makes the results available to patients and their doctors, so they can track lung function day to day.

The trial aims to demonstrate the device’s accuracy in predicting attacks. King believes it could transform medicine’s approach to the disease. “When it comes to asthma, we are still walking around in the dark ages,” he says. “We are still using crude measurements we’ve had since the 1940s. We need a major change in the way we manage the illness.”

Existing “crude” measurement techniques include the peak flow meter – the tool Thea Notaras used to monitor her asthma. While peak flow measurements can be useful, they can also be difficult to interpret – even for doctors, if they do not regularly use the technique. Many patients also find the peak flow test, which requires strong outward breaths, difficult and tiring to perform. These barriers mean peak flow recordings are infrequently used to manage asthma. Many doctors and patients prefer to base treatment decisions on symptoms, such as wheezing and breathlessness. While this strategy works for some, symptoms can be deceptive and vary between individuals.

The new device provides an easier way for patients to test their own lung function at home, potentially

identifying when their asthma is well controlled, when it changes or becomes unstable. The device is in the early stages of development and testing, but there is technology available to transfer the data it records directly to healthcare providers. All of this is in stark contrast to current approaches to asthma, which favour symptoms over objective measurements.

Trial participant Amy Webster has suffered from severe asthma since she was a child. Many times when she has been hospitalised, battling for every breath, she has been asked to do a peak flow test. “And when I’m really unwell, I just can’t,” she says. “Peak flow requires quite a strong breath out. It can make you feel dizzy. It’s always a bit of a drag, and when you’re not feeling well, it’s very hard to do.”

During the trial, she used the forced oscillation device every morning, sitting at a table in her Terrey Hills home, breathing gently into the mouthpiece for a couple of minutes.

That’s all it took for the device to take a daily measure of her lung function and send the data to King and his research team.

“It’s a bit of a gamechanger,” she says. “Up to now, there really hasn’t been a reliable way to have an objective measure of the condition of your lungs. And the thing about asthma flare-ups is, if you can catch them early, you can start treatment and reduce their severity and duration. I definitely think this technology could save lives.”

King and his team are working with Italian engineers to make the device smaller. He envisages a day when the machine – now the size of a basketball – is a compact, handheld device that connects to a patient’s smartphone, sending daily data to their doctor and guiding treatment decisions that will help prevent attacks.

If Thea Notaras were alive today, she would be 47 years old. Her father still thinks about her every day. “At my stage in life, I can afford to make a contribution after many years of hard work,” Notaras says. “I’ve always wanted to do something against this dreadful disease.” ✱



A DEADLY DISEASE

Asthma kills approximately **400 people** in Australia each year.

More than **two-thirds** of asthma-related deaths are preventable.

Asthma affects **8 percent of adults** and **15 percent of children**.





→

Amy Webster tests the new use-at-home device to monitor lung function. Photograph: Louise Cooper

SUPPORTING BETTER HEALTH CARE

Len and Gretel Ainsworth: The Ainsworth Interactive Collection of Medical Pathology, dendritic cell research, Warren Centre for Advanced Engineering

Australian Cancer Research Foundation: Cancer research

Australian Society of Orthodontists, NSW Branch: Chair of Orthodontics, visiting Professor of Orthodontics

Joan Barnet: Research at the Brain and Mind Centre

Blackmores: Maurice Blackmore Senior Research and Education Fellow, Blackmores Lectureship

Bowel Cancer Australia: Lawrence Penn Chair of Bowel Cancer Research

Gregory Brown: Greg Brown Diabetes and Endocrinology Research Laboratories

Cerebral Palsy Alliance Research Foundation: Health and medical research and scholarships

John and Anne Chong: Dr John and Anne Chong Research Fellowship, Dr John and Anne Chong Lab for Functional Genomics

Francis Patrick Claffy: Discipline of Clinical Ophthalmology and Eye Health research

CLEARbridge Foundation: Institute of Bone and Joint Research biobank, Richard Pulley Outreach and Regional Engagement Program

The Clive and Vera Ramaciotti Foundations: Science and medical research across multiple schools and faculties

Peter Davidson: Medical research and scholarships, Sydney Conservatorium of Music scholarships

Diabetes Australia: Diabetes research

Diabetes NSW: Diabetes research

The Fred Hollows Foundation: Ophthalmology and preventable blindness research

Heart Research Australia: Cardiology and heart health research

JDRF: Diabetes research

JDRF International: Diabetes research

Lenity Australia: The Lenity Australia Award Scholarship, The Lenity Research Fellow

Dr Liang: Dr Liang Voice Program

The Lincoln Centre: Medical research

Maple-Brown Family Foundation: Colorectal Clinic at Chris O'Brien Lifehouse, Christine Maple-Brown Colorectal Cancer Research Scholarship, environmental research and conservation

McKnight Charitable Trust: Medical research in ageing and Alzheimer's disease

The Michael J Fox Foundation for Parkinson's Research: Parkinson's disease research

National Breast Cancer Foundation: Breast cancer research

Enid and Alan Ng: Haematology research

The Pain Management Research Institute: Medical research and equipment in anaesthesia and pain management

Greg Poche and Kay Van Norton Poche: Poche Centre for Indigenous Health

The Rebecca L Cooper Medical Research Foundation: Medical research across multiple schools and faculties

Robert Salteri: Medical research in nutrition for healthy ageing, Parkinson's disease and prevention of cerebral palsy

Jerry Schwartz: Bela Schwartz Postdoctoral Fellowship in translational dental research, research in medicine and dentistry

The Sir Zelman Cowen Universities Fund: Medical and scientific research

Brian Trudinger: Reproductive endocrinology and infertility research

Susan and Isaac Wakil Foundation: The Susan Wakil Health Building, Susan Wakil Scholarships

Peter Weiss: The Peter Weiss Lung Disease Research Fund



THE BEST MEDICINE

Across the University, donors are helping researchers test new treatments and improve care.

An Australian first in cancer research

In a philanthropically funded clinical trial, our researchers are reprogramming the immune cells of cancer patients to hunt down and destroy deadly tumours. The trial – supported by a \$4.5 million gift from the Li Ka Shing Foundation – is the first in Australia to test CAR T-cell immunotherapy in patients with advanced pancreatic and related cancers. The experimental therapy has the potential to treat dozens of cancers, including lung, ovarian and some breast cancers, by targeting a specific protein on the surface of tumour cells.

The fight against motor neurone disease

There is no cure for motor neurone disease. Life expectancy for those diagnosed is typically just 27 months. But thanks to a \$4.75 million research grant from non-profit organisation Fight MND, a nationwide trial led by researchers at the University of Sydney and Westmead Hospital is investigating a drug that could help stop the progression of the disease. The funds were raised largely through Fight MND's annual event, the Big Freeze, which sees sporting stars plunge into a pool of icy water on a winter's day.

Better health for mothers and babies

Traditionally, the health system has separated dentistry and medicine, but research shows the two are inextricably linked. The University's Chair of Lifespan Oral Health is a position funded by a gift from the Abrahams family's Rosebrook Foundation. The chair's current research includes a study investigating how the oral health of pregnant women affects the general health of their newborn children. The study is funded by a gift from the Bupa Health Foundation.



GIFTS TO THE CAMPAIGN

Gifts range from a few cents to

\$35 million

Donations have come from

76 countries

We've received 134 gifts of more than

\$1 million

**AND EVERY CONTINENT,
INCLUDING A GIFT
FROM ANTARCTICA**



↑ A tumour-free devil discovered in southwest Tasmania.

THANKS TO

\$36,133 from more than 100 donors,
we're working to save a
national icon.

THE DEVILS

you don't know

Extinction once seemed inevitable for Tasmania's famous carnivore, but on a crowdfunded expedition to the state's remote southwest, researchers made a discovery that raises new hope.

DR CAROLYN HOGG WAS WALKING over hard, spiky rock, with Tasmanian devil traps strapped to her back, in a remote part of the island state's wilderness when she felt something give. The sole of one of her hiking boots had snapped. It was the first day of a week-long expedition to search for Tasmanian devils that could prove key to the survival of the disease-stricken species.





Hogg, a population biologist and research manager with the University of Sydney's Australasian Wildlife Genomics Group, patched her boot up with plastic and duct tape, strapped the long pipe traps onto her back again, and set back out.

By the end of the trip, she and the team had walked 120 kilometres in search of the endangered animal, baiting traps and gathering data. It was worth it: the crowdfunded expedition to Tasmania's southwest, she says, has "given us the first evidence that there are devils down there and those devils don't have disease. That's huge."

The Tasmanian and federal governments have invested millions in the race to find a solution to devil facial tumour disease (DFTD), which has decimated the species. The University's Australasian Wildlife Genomics Group, which specialises in immunogenetics and conservation genetics, is playing a major role.

One of the questions the University's researchers have already answered is how this contagious cancer is able to infect devils in the first place. "Why isn't the devil's immune system recognising that the cancer has entered its body?" says Hogg. "The reason is that DFTD is able to turn off the receptor cells that allow the devil's immune system to see it. It is basically hiding from the devil's immune system."

DFTD cannot be cured. It spreads when the animals bite each other during mating and fighting. Devils were already facing the same modern threats as other wildlife, such as roads, domestic animals and habitat loss. But the species is even more vulnerable than most because of its low genetic diversity. With the population devastated by disease, the risk of inbreeding is heightened.

The main strategy to retain genetic diversity in the species is an "insurance population". In 2006, young devils were brought in from the wild as a safeguard against the species' extinction. There are now about 600 animals in the insurance population, living in 35 zoos and areas including Tasmania's Maria Island and the fenced-off Forestier Peninsula.

Hogg is the co-creator of an algorithm that maximises devil pairings for gene diversity based on their genetics and where they were trapped. But even with this tool and 600 devils in the insurance population, concerns remained that genetic diversity was too low and there were no more new variants to be found.

That's why the field trip into the wilderness was so exciting. University researchers had spent a year genotyping 87 devil scats that had been collected

SAVING A NATIONAL ICON



University researchers discovered 14 disease-free devils on a crowdfunded expedition.

throughout the state's southwest by a group of intrepid rangers and volunteers. Analysis confirmed that the scats had come from devils and that some of them had different genetic variants from anything seen before. What it couldn't reveal was whether these animals were infected with DFTD. To find that out, the researchers needed to meet the devils face to face.

The University launched a crowdfunding campaign to fund an expedition to Nye Bay and Wreck Bay, two places in the Tasmanian wilderness accessible only by helicopter or on foot. More than 100 people donated \$36,133, in amounts ranging from \$5 to \$30,000. A class of Year 2 students held a cake stall to raise money. Ohio's Toledo Zoo agreed to fund helicopters to fly in two five-person teams, along with 1400 kilograms of gear, including 46 big cylinder devil traps and 100 kilograms of frozen vacuum-packed wallaby meat to bait them. A fridge was not included. "It was a bit skanky by the end of the trip," says Hogg.

After the helicopter dropped Hogg and the rest of the team off in a tiny clearing – the only accessible space in the scrubby landscape – they set up camp by an icy creek. The bush was impenetrable, so the beach became their walking track. Scats and footprints guided them through sand dunes and into scrub where they would lay and bait the traps with a mix of wallaby, lamb, cat food and sardines. Once the devils were caught, data collection began: measurements, microchipping, biopsies, disease checks.

The researchers trapped six adult devils at Nye Bay and eight at Wreck Bay – all disease-free. It is too early to say whether any offspring from devils discovered on this expedition will be brought into the insurance population. But there are more areas to be explored in



**More than 100 people donated
\$36,133 towards the expedition,
in amounts ranging from
\$5 to \$30,000.**

Clockwise from top left: Devil tracks on the beach; the remote Tasmanian wilderness was accessible only by helicopter; Dr Samantha Fox, team leader of the Save the Tasmanian Devil Program, sets a trap; once caught, the devils were checked for disease.



the quest to uncover unrepresented genetic diversity in the wild; Nye Bay and Wreck Bay were just two areas where devil scats were collected. There will be future expeditions to collect more data that could be used to boost the population and increase the species' chance of survival.

"The more diversity you have, the better you are at adapting to change. So if we introduce devils and they live for a bit longer and they can breed for two breeding seasons instead of one, then that's good," Hogg says.

Comparing devils released from the insurance population to those on wild sites will be "the final link", she says. "We need to know the answer to that question before we can make a long-term strategy to know how to manage the devils and disease in the landscape."

The plight of this cute carnivore has rallied zoos and scientists throughout Australia and around the world for 15 years. It's complex work and a long-term commitment, but Hogg says it's essential.

"Someone said to me, 'Why do you fight so hard to save the devil? Is it because they're cute?' and

I said, 'No, I fight so hard to save the devil because they are the top-order carnivore in Tasmania.' As soon as you lose the devils from the landscape, you will see an even greater increase in cats and – who knows – foxes may get a hold in Tasmania. We know these species have already decimated the wildlife of the mainland ... If the devils go and the same thing happens in Tasmania, I think that would be a very sad day for our country as a whole."

The fight is far from over. The University collaborates with Cambridge University and the University of Tasmania's Menzies Institute for Medical Research on work to preserve the species, while many others also contribute under the Save the Tasmanian Devil Program. "Everyone we work with has the same goal, which is the best interests of the devil," says Hogg.

Thanks to the donor-funded expedition, the hunt for new genes is off to a promising start. There are more discoveries to be made on future trapping trips to Tasmania's remote wilderness.

Next time, presumably, with a spare pair of hiking boots in Hogg's backpack. ✨



SUPPORTING RESEARCH AND DISCOVERY

The Bill and Melinda Gates Foundation: Infant nutrition, agriculture and environmental sciences research

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The Simon Marais Foundation: University of Sydney Mathematical Research Institute, Simon Marais Lecture

Colin Sullivan and Janette Sullivan: Colin Sullivan Postdoctoral Research Fellowship, agriculture research

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←
Homeward bound:
the helicopter
drops equipment at
the departure point
at Lake Pedder.

THANKS TO

\$33.7 million from
Barry and Joy Lambert,
we're fighting illness
with medicinal cannabis.



When *love* is the
mother of
INVENTION

A gift inspired by a suffering child
is helping researchers uncover the
potential of medicinal cannabis.

IMAGINE YOU HAD TO give your dangerously ill child medicine, but you didn't know where it came from, and you weren't sure what it contained.

Families around Australia face this situation as they break the law to use untested, black-market cannabis to treat children who have epilepsy. The fact that it is now widely acknowledged that cannabis compounds called cannabinoids can offer an effective treatment only adds to the frustration.

Barry and Joy Lambert's granddaughter was a baby when she started suffering from frequent seizures – sometimes hundreds a day. The family was grateful that a cannabis-derived product they illegally imported from Denmark dramatically improved her symptoms. But the uncertainty and illegality of helping little Katelyn avoid a likely future of brain damage and serious disability made them determined to do something to change the situation.

In 2015, they made a \$33.7 million gift to the University of Sydney. Their donation – then the largest ever made to an Australian university – established the Lambert Initiative for Cannabinoid Therapeutics, now a world leader in one of the fastest growing areas of pharmacology.

“We have all devoted our careers to cannabis science,” says Academic Director Professor Iain McGregor of the team working with the initiative. “We know there are more than 140 compounds we call cannabinoids that offer real therapeutic possibilities. Our current research is focused on uncovering those with the greatest potential.”

To find those powerful compounds, the Lambert Initiative is doing cutting-edge research, screening plant-derived cannabinoids in settings that mimic target diseases. The initiative is also building evidence for the effectiveness of currently available medicinal cannabis products, looking at areas including youth anxiety, alcohol dependence, Tourette syndrome and insomnia.

Only one molecule in cannabis causes a high: tetrahydrocannabinol, better known as THC. But THC can also be a medicine; it reduces

chemotherapy-induced nausea, allowing cancer patients to regain their appetites. It has also shown effectiveness in treating chronic pain and multiple sclerosis spasticity.

A non-intoxicating component of cannabis – a compound called cannabidiol (CBD) – is showing remarkable potential in treating anxiety, psychosis and epilepsy, and skin conditions such as acne.

Not all the progress has been in the lab and the clinic. The Lamberts' gift was also a lightning

rod for a long overdue community discussion. On the day the gift was announced at the University, senior policymakers, including then NSW premier, Mike Baird, spoke to the gathered media about the potential of the research to advance understanding of these remarkable compounds. An important step would be freeing up legislation to help the work happen more easily.

Rhys Cohen, the senior project officer with the Lambert Initiative, works with government, regulators, industry and consumers to make drug policy more research-friendly. “Cannabis access remains a difficult issue,” he says. “For most patients, legal access is overly complex. It requires specialist medical support, complex bureaucratic processes and exorbitant cost.”

Cohen and his colleagues at the Lambert Initiative are addressing these issues by working to educate, change attitudes and understand the landscape that people like the Lamberts have negotiated to help their loved ones.

“The gift gave us the power to build our own centre and research team,” says Cohen. “But we've also been able to reach into the community and fund some ambitious and unprecedented observational projects.”

One of the most enlightening was the Paediatric Epilepsy Lambert Initiative Cannabinoid Analysis (PELICAN) study, involving parents using black-market cannabis to manage seizures in their children with epilepsy. The parents were interviewed and provided samples of their illicit cannabis products for analysis at the Lambert Initiative facility.



The family that decided to fight

At just six months old, Katelyn Lambert was already racked by a catastrophic form of epilepsy called Dravet syndrome. The developmental damage caused by the syndrome's seizures is profound. Doctors said there was little to be done. But Katelyn's family would not accept that idea at face value.

Her father, Michael Lambert, started searching for hope online. Through his research, he discovered that other Dravet children had been helped by cannabis. To help Katelyn, the family was reluctantly drawn into the world of black-market cannabis.

The treatment worked for Katelyn but brought with it a sense of frustration and even injustice. Her grandfather, Barry Lambert, was highly successful in the financial services industry, so he and his wife, Joy, decided to fund an initiative aimed specifically at understanding the medicinal potential of cannabis. The Lambert Initiative was launched at the University of Sydney in 2015.

Today, Katelyn is a happy little girl and, unlike many children with Dravet syndrome, she is going to school and has an active life. Her family is overjoyed.



←

Barry
Lambert with
granddaughter
Katelyn.
Photograph:
James Brickwood,
Fairfax
Syndication

**“We know there
are more than
140 compounds
we call cannabinoids
that offer
real therapeutic
possibilities.”**

PROFESSOR IAIN MCGREGOR
Academic Director,
the Lambert Initiative



A key task of the PELICAN study was to highlight the impossible world these families must live in. These were people like the Lamberts, with little previous experience with illicit cannabis. They turned to such products in desperation, because conventional prescription medications didn't work well or caused intolerable side effects.

Analysis of the illicit products showed that those perceived as “very effective” by parents actually had a wide range of cannabinoid profiles. While some oils contained CBD (the compound known to be effective for reducing seizures), many contained the psychoactive compound, THC.

Subsequent work in animal models of epilepsy confirmed that low doses of THC can have anticonvulsant effects, as can some of the more obscure cannabinoids found in the plant.

“Families pretty much across the board believed they were giving their kids CBD only,” says Anastasia Suraev, project coordinator of the PELICAN study. “Not only were they not giving much in the way of CBD, almost all of them were giving some level of THC.”

As the Lambert Initiative pursues its twin goals of identifying the therapeutic value in cannabinoid compounds and changing legislation around medical cannabis to make access for patients and researchers easier, there is a sense of great things still to come. The reason is simple. Humans are naturally receptive to cannabinoid compounds. We even produce our own.

Called endocannabinoids, the self-produced compounds are part of our endocannabinoid system, which plays an active role in regulating how cells talk to each other in the brain and the body. The endocannabinoid system is implicated in a number of important functions, including pain, inflammation and the immune response.

New infrastructure established by the Lambert Initiative allows the precise measurement of endocannabinoids in humans and animals to determine how disruptions in the endocannabinoid system may be implicated in diseases such as epilepsy, psychosis and cancer.

Having an insight into plant-derived molecules that could be used to enhance or repair the work of the endocannabinoid system holds incredible promise for a whole new area of pharmacology and disease treatment. But with cannabis having been illegal for so long, there are clues to its immense potential to do good, without much in the way of clinically useful evidence. Thanks to the Lambert gift, that evidence is now being collected and the whole environment of cannabis research in Australia has been transformed. ✱

What *giving* gives me



DONOR Tom Yim (LLB '73)

GIFT \$525,000 to the University of Sydney Law School

“WHEN I STARTED STUDYING law at the University of Sydney, everything was a struggle. I’d come from Hong Kong and English wasn’t my first language. I had to use a dictionary for every paragraph I read. I did try to work hard, but I wasn’t a very good student.

Colin Phegan was one of my lecturers. He noticed I was having trouble and one day he pulled me aside and told me I was reading case law the wrong way. It was just a 20-minute chat but it made all the difference. I was never able to get full marks, but he pointed me in the right direction. Without his help, I would never have got through.

After I graduated, I went on to practise law, but later I went into business and investment. Having some background in law is extremely useful in business. I’m so grateful that I had an education and I’m so grateful that I have an opportunity to give back.

I wanted to find a way to remember and honour Colin, so I rang Joellen Riley, who was the dean of the law school at the time. She suggested I could support a new teaching position: the Colin Phegan Lectureship. It was a way of helping students who were struggling.

Andrew Dyer has been the Colin Phegan Lecturer for five years now. He provides a course that gives students the opportunity to talk through issues of case law and teaches them how to answer questions. He’s helping them get through the mist, so to speak. That’s exactly how Colin Phegan helped me in those 20 minutes all those years ago.

It’s terrific to see the difference Andrew is making for students, but I know I didn’t make all this happen. It was Colin Phegan’s help that made it possible for me to give something back to the law school. I’m grateful to be able to acknowledge that debt.”

“I’m so grateful that I had an education and I’m so grateful that I have an opportunity to give back.”

A geneticist's quest to understand the drivers of human disease takes her from the laboratory to the African desert.

Written *in* blood

PROFESSOR VANESSA HAYES SPENDS much of her time working in a gleaming laboratory on a leafy Sydney street. But there is another side to her work – one that takes her to the Kalahari Desert in northern Namibia. When she works in Africa, her only tools are a folding table, a notebook and the basic venesection equipment she uses to take blood samples from members of tribes such as the Ju/'hoansi people.

Hayes has spent a decade studying the Ju/'hoansi and other indigenous southern African groups. They are key to her quest to understand the genetic origins of humanity and the diseases that afflict us.

As the Petre Chair of Prostate Cancer Research, a position shared between the University of Sydney and the Garvan Institute of Medical Research, Hayes leads a team dedicated to using genetics for earlier diagnosis and more targeted treatment options for prostate cancer. The disease kills an estimated 3500 men in Australia each year.

Her work in the lab seems a long way from Namibia, where groups including the Ju/'hoansi live a traditional forager lifestyle with little use for Western medicines.

“How the two connect – it is a question I am asked all the time,” Hayes says. “But it is all one piece of work. We spend a lot of time as geneticists studying diseases but we have no idea what it is to be healthy.”

THANKS TO

a \$2 million gift from the Petre Foundation,
we're fighting cancer with genetics research.



Professor
Vanessa Hayes
works with
blood samples
in her Sydney
Laboratory.

The hunter-gatherers from the Kalahari have the oldest genomes on the planet. The longer a population has existed, the more time it has had to build up genetic variations. This diversity makes these groups more genetically fit – better able to adapt than other populations. Using African DNA as a baseline, Hayes is developing a reference genome for healthy people that is more representative than those derived from European DNA. To unravel the genetic risks to health, it is crucial to use the complete range of genes that make us human.

On the other hand, while populations outside Africa are less genetically diverse, they have adapted some resistance to diseases such as malaria and tuberculosis.

Prostate cancer is a particular problem in Africa, where people tend to get the disease earlier, in highly aggressive forms. “It’s really important that we study this disease within Africa if we want to understand prostate cancer globally,” says Hayes.

In her laboratory, she uses state-of-the-art genetic mapping equipment that allows for what she describes as a “bird’s eye view” of the DNA samples she collects. The instruments were purchased thanks to a \$2 million gift from the Petre Foundation in 2011, which also helped establish Hayes’ role as chair. The technology is both unique within Australia and indispensable to Hayes’ work.

“Without the Petre Foundation, our lab wouldn’t exist,” Hayes says. “Funding for high-risk science through the normal mechanisms isn’t easy, but donor Daniel Petre is a forward-thinking person. He likes the idea of high risk and high gain.”

Hayes sees her research as high risk and high gain because it looks beyond Australia to the rest of the world, and its wide-ranging benefits cannot always be predicted. “People often think you need to study at

your doorstep to make a difference, which simply isn’t true,” she says. “By going further afield, we open up new understanding.”

Thanks to the Petre Foundation’s generosity, Hayes’ team was the first in Australia to obtain next-generation mapping technology, and the first in the world to apply it to understanding an individual tumour. They used the technology to generate whole genome maps for prostate cancer – the most complete picture to date of the cancer’s genomic landscape. Such mapping could be used to characterise an individual’s tumour, enabling more precise treatments. Currently, it is difficult

to determine when prostate cancer is likely to spread and become life-threatening, so patients sometimes receive gruelling treatment they may not need. Understanding the genetic drivers of individual tumours could help clinicians target treatment to the needs of particular patients.

Professor Hayes says finding an identifiable gene, like those that predict risk for breast cancer, remains the holy grail of prostate cancer research in order to better target screening programs and help patients and clinicians decide on treatment options.

“My interest and passion for prostate cancer comes from the fact that this is a cancer with no known modifiable risk factor. It has a 58 percent hereditary rate but no single magical gene.”

Born in Cape Town, Hayes completed undergraduate and master’s degrees in science at the city’s Stellenbosch University, researching African gene variants and susceptibility to HIV. Later, she moved to the University of Groningen in the Netherlands to complete her PhD in cancer genetics.

She moved to Sydney in 2003. In her first role at the Garvan, she explored genetic risk factors for prostate cancer. This was followed by work at the Children’s Cancer Institute of Australia, establishing one of the first next-generation sequencing laboratories in the country. She represented Australia as a Fulbright Professional Scholar at Penn State University before returning to Sydney for her role as chair.

→ Vanessa Hayes in the Lab



NEW HOPE



Professor Hayes’ research aims to help the estimated **3500 men** who die of prostate cancer in Australia each year.

→ Vanessa Hayes working in Namibia, with local man, D’cao. Photograph: Chris Bennett

“Donor Daniel Petre is a forward-thinking person. He likes the idea of high risk and high gain.”



PROFESSOR VANESSA HAYES
Petre Chair of Prostate Cancer Research





In Australia, Hayes says she has been allowed the freedom to pioneer next-generation sequencing in what she describes as “out-of-the-box science”, including sequencing the genome of Archbishop Desmond Tutu, the first African and eighth complete human genome to be sequenced.

Hayes has spent 10 years working on the Southern African Genome project, the evidence from which is now being used by researchers around the world to better understand the genetic drivers of human disease.

She is now applying the same open inquiry to her work with prostate cancer. With relatively scant understanding of the risk factors for prostate cancer and limited treatment options for those who develop it, this is an ideal avenue for Hayes’ out-of-the-box science.

“Safe research is where you are building from your own story, or someone else’s story,” she says. “But why should we keep asking the same question in the same way?” *

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↑ Professor Vanessa Hayes in Namibia with Ouma, the oldest person in her village. Photograph: Chris Bennett



DONORS GAVE \$460 MILLION

for research

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for medical
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million
for academic
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“

I DOUBT I COULD HAVE SUCCEEDED IN
MY STUDIES WITHOUT THE HELP OF
SCHOLARSHIPS. I'LL ALWAYS BE THANKFUL.
I CAN ONLY HOPE THAT ONE DAY
I'LL BE ABLE TO REPAY THE GENEROSITY.

—

VICTOR SHAHEN
Honours student,
Bachelor of Science (Medical Science)

SEE STORY PAGE 53

TEACHING TOMORROW'S LEADERS TO SOAR

EDUCATION



Up, up
and *away*



Scholarships give more than just financial support. They instil a sense of confidence and a drive to succeed. Here, six recipients explain how donor-funded scholarships changed their lives.

Jessica Zanuttini

DEGREES Bachelor of Education (Primary) '14 PhD '19

SCHOLARSHIP

Raymond L Debus Scholarship

It's not uncommon for the children of teachers to follow in their parents' footsteps. Jessica Zanuttini did just that. "My mum is a teacher and she is a very passionate educator, so I knew there was really nowhere else that I wanted to be," she says.

But that decision proved only the first step. After earning her Bachelor of Education (Primary), she found herself drawn to students with special education needs, particularly those on the autism spectrum.

"I found I was always trying to do more to help those who needed additional support," she says. "So I ended up taking more courses in special and inclusive education in the last year of my degree. From there, I went into the field, teaching part time in a support unit, and working towards a PhD."

The research demands of her PhD were such that she felt compelled to give up her job. Unemployed for nearly six months, she was afraid her PhD was in peril. "I felt quite pressured to speed up my data collection just so I could get back to earning an income," she says.

She applied for a scholarship funded by a \$1 million bequest from the late Raymond L Debus, a Sydney alumnus who taught and researched in educational psychology at the University from 1958

to 1996. After his retirement, Debus was an honorary associate in the faculty until permanently retiring in 2009. He was patron of the NSW Institute of Educational Research and a founding member of the Australian Association for Research in Education. His bequest helps honour students or graduates undertake research in the field of education.

"I just needed a little support to get me through the last six months of data collection, and I was very grateful," Zanuttini says. "It helped remind me that what I was doing was important, and gave me the motivation to keep going and a sense of pride." She now lectures at the University. "I want to pass on my passion for special and inclusive education to pre-service teachers," she says. "I hope to influence others and inspire them."

THANKS TO

scholarship supporters like the Susan and Isaac Wakil Foundation, we're changing lives through education.





John Won

DEGREES Master of Nursing '13

Master of Emergency Nursing '18

SCHOLARSHIP Susan Wakil Scholarship

John Won was working in the accounts department of an aged care facility when he found himself dreaming of a career in nursing. Drawn to the day-to-day action of his frontline colleagues' work, he left his desk and calculator behind to retrain as a nurse specialising in emergency care.

"I love the pace and the excitement," says Won, who completed his Master of Emergency Nursing with the help of a Susan Wakil Scholarship. "When people are having their absolute worst day, we are there to help them out. It can be upsetting sometimes, but I consider myself very fortunate to be useful to people when they are at their most vulnerable."

With three school-aged children and a partner with her own career, Won's decision to return to study involved weighing up significant costs in terms

of money and time. "I would be preparing meals, getting the kids to bed and then pulling out the laptop to work through the content. It was hard."

The Susan Wakil Scholarship eased the burden significantly. The Susan and Isaac Wakil Foundation is among the University's greatest supporters, donating \$10.8 million in 2015 to fund 12 nursing scholarships annually. The Wakil also gave \$35 million in 2016 – the largest gift ever received by the University – to build a new facility to house the health and medical disciplines.

For Won, the Susan Wakil Scholarship allowed him to focus on his studies, but also provided a confidence boost. "To be recognised by a scholarship was a real rubber stamp for me. It made me feel I was heading in the right direction."

Maddison Eveleigh

DEGREE Bachelor of Science,
second year

SCHOLARSHIP University of Sydney
Early Offer Year 12 Scholarship

When Maddison Eveleigh was 13, she started working at her local bakery to save money to go to university. She longed to study at the University of Sydney, but it felt like a daunting ambition. No-one in her family had ever been to university, and she would need to move to the city from her home in Moruya, on the NSW south coast.

“In country towns, university is not always the expected path and it can be very difficult to afford,” she says.

She studied hard, hoping to get the results she needed to study science, but even with her savings and some financial help from her family, she knew she wouldn't have enough to cover rent and living expenses in Sydney.

Her only hope was a scholarship. She applied for the University of Sydney Early Offer Year 12 Scholarship, a donor-supported scheme for students from financially disadvantaged backgrounds or low socioeconomic schools.

Eveleigh got into her chosen course and won the scholarship. “When I got it, I immediately felt like the University of Sydney wanted me as a student,” she says. “They can see the difference between coming from a rural or a city school.”

The scholarship also helped with her initial culture shock when she arrived in Sydney. “I was so homesick, so anxious about everything when I moved here,” she says. “And then uni hit. The scholarship allowed me a buffer of time before I got a job, and by the end of first semester, everything clicked.”

She is now in her second year, majoring in immunology, pathology and applied medical science. She plans to go on to study medicine, with a rural placement and a focus on emergency medicine.

“The scholarship changed everything – 100 percent. I wouldn't have been able to come here without it.”

“In country towns, university is not always the expected path and it can be very difficult to afford.”





Kelly Stewart

DEGREE Bachelor of Computer Science and Technology, honours year

SCHOLARSHIPS University of Sydney Early Offer Year 12 Scholarship, Western Union Foundation Scholarship

In their early teens, most young women are beginning to think about the future, from education to career directions. Things were a little different for Kelly Stewart.

Living on a remote property in northern NSW and doing her schooling via distance education, she was brought up by a father who believed that civilisation as we know it would end in 2014. He spent much of his time preparing.

With her sister, Stewart lived an isolated life. A computer with an internet connection was her line to the outside world. “I didn’t really know what to do with a computer at first but it became a passion,” she says.

Now 21, she is in her honours year of a Bachelor of Computer Science and Technology. She wouldn’t be here, she says, if not for the Early Offer Year

12 Scholarship, which facilitates entry for students from financially disadvantaged backgrounds, and the Western Union Foundation Scholarship for students in science, engineering, information technology or business.

For the first two years of her degree, Stewart tutored for up to 10 hours a week to make ends meet. “I don’t get any financial assistance from my parents and although I enjoyed tutoring, I found it was taking me away from my studies and stressing me out. Finding some support meant I didn’t have to worry so much.”

The Western Union scholarship had benefits not just for Stewart, but also for her younger sister. Thanks to the funds it provided, Stewart moved into a larger apartment, where her sister was able to join her after completing the HSC. She recently commenced her own university studies.

Victor Shahren

DEGREE Bachelor of Science (Medical Science), honours year

SCHOLARSHIPS Sydney Scholars Award, Denison Research Scholarship, Charles Perkins Centre Summer Research Scholarship

Four years ago, when Victor Shahren and his family immigrated to Australia from Israel, his dream was to study medicine. It seemed a remote prospect.

His parents struggled to find jobs in their new country, so he had to work to help keep the family afloat. He achieved the results he needed to make it into the University's Bachelor of Medical Science in 2016, but worried that the time spent out of the workforce would leave his family struggling.

Help arrived in the form of a series of merit-based scholarships: the Sydney Scholars Award, the Denison Research Scholarship and the Charles Perkins Centre Summer Research Scholarship.

He was able to funnel some of the scholarship money back to his family, and did so well in his studies that in second year he was accepted into the prestigious Talented Students Program, which gave him the opportunity to work on a research project in neuroscience.

The work was published in the journal *Acta Histochemica*, with Shahren as the lead author – a remarkable achievement for an undergraduate student.

“My hope is that I become a cardiothoracic surgeon,” he says. “I really want to be where the action is and help people as well.”

Recently, he completed an eight-week research stint, supported by the Charles Perkins Centre Summer Research Scholarship. This scholarship – funded by donations – allows high-achieving students to pursue their own idea for a research project in the area of diabetes, obesity or cardiovascular disease. Shahren worked with Dr Melkam Kebede, a diabetes researcher at the Charles Perkins Centre, on a project investigating insulin and its secretion.

Scholarships have helped Shahren shine. “I've always been confident in myself academically,” he says, “but receiving such support has motivated me to put in even more effort. I've been very, very fortunate.”



SUPPORTING SCHOLARSHIPS

Robert and Elizabeth Albert: Frank Albert Prizes, Albert Scholarship, Sydney Conservatorium of Music Buddy Program

Gaetano Salvatore Boncardo: Adamo and Francesca Boncardo Early Career Research Fellowship in Pancreatic Cancer, Adamo and Francesca Boncardo Equity Scholarships

Cecil Churm: Pamela Jeanne Elizabeth Churm Scholarship, Pamela Churm Memorial Fund

John Hooke and Maria Teresa Hooke: Sir Lionel Hooke Scholarship, John Hooke Chair of Nanoscience

Belinda Hutchinson and Roger Massy-Greene: Eureka Benevolent Foundation Scholarships

Dorothy Lamberton: John A Lamberton Research Scholarship

Wayne Lonergan: Wayne Lonergan Distinguished Undergraduate Business Scholarship, Wayne Lonergan Award for Outstanding Teaching, Inspired by Business program

The Rosebrook Foundation: Rosebrook Foundation Indigenous accommodation scholarship, Chair of Lifespan Oral Health

Carole Roussel: R A Money Postgraduate Research Scholarship in Neuroscience

Alek Safarian: Alek Safarian MBA Scholarship

The Thyne Reid Foundation: Undergraduate and postgraduate scholarships, Thyne Reid Boatshed, research across multiple schools and faculties

David Harold Tribe: Cultural awards in the Faculty of Arts and Social Sciences and Sydney Conservatorium of Music

Westpac Bicentennial Foundation: Westpac Future Leaders Scholarship, Westpac Asian Exchange Scholarship, Westpac Research Fellowship

Rachel Williams

DEGREE Bachelor of Oral Health '19

SCHOLARSHIP Rotary Aboriginal Oral Health Scholarship through the Poche Centre for Indigenous Health

Less than three months after she completed her degree, Rachel Williams started work as an oral health therapist in Inverell, not far from her hometown of Glen Innes.

Williams is a Ngemba woman working at the Armajun Aboriginal Health Service, where her skills and connection to the community are crucial in providing dental care for local Aboriginal people.

“The patients I see can’t afford to see specialists,” she says. For many of the people she treats, the nearest specialists are a two-and-a-half hour drive away. “So we do as much as we can here, rather than just referring it on to someone else.”

Four years ago, Williams received the Rotary Aboriginal Oral Health Scholarship, created in partnership with the University’s Poche Centre for Indigenous Health. It helped her to achieve certificate qualifications as a dental assistant.

Afterwards, she began a dental assistant traineeship in Inverell, but dreamed of taking her studies further with a Bachelor of Oral Health. Again, the Poche Centre provided crucial support.

The centre was established thanks to a \$10 million donation from Greg Poche and Kay Van Norton Poche. It works to advance Aboriginal health services and create pathways for Aboriginal health practitioners to work in their communities.

With the Poche Centre’s support, Williams moved to Sydney and completed her Bachelor of Oral Health at the Westmead Centre for Oral Health. “Without the Poche Centre, I wouldn’t have gone back to university,” she says. “I probably would have stayed as a dental assistant.

“Being able to help people here, to help close the health gap for Aboriginal people in rural areas, it’s something I have always wanted to do.”





DONORS GAVE \$300 MILLION

for student support

2000+
scholarships

funded by the
INSPIRED campaign

\$9.6
million

for endowed postgraduate
scholarships

2728
students

donated to support
University causes

In arenas from technology and infrastructure to transformative social initiatives, major projects often become major headaches. Philanthropist John Grill has been the catalyst for reimagining how research and education can help projects deliver.

The project

POWERHOUSE

IN THE FIRST DECADE of this century, Australia had one of its largest ever resources booms. It generated significant wealth, but the benefits could have been even greater.

As CEO of WorleyParsons, one of the world's leading engineering and project-management companies, John Grill witnessed the missed and mishandled opportunities of the time.

"Projects weren't so much poorly managed – they were poorly conceived," says the Sydney alumnus. "Governance associated with prioritising activity was shabby. In short, the leadership of projects was poor. But there was so much money being made that these problems were overlooked."

As Grill saw it, one of the biggest problems was the lack of investment in developing and supporting Australia's future project leaders.

To help address these issues, he donated \$20 million to support the establishment of the John Grill Centre for Project Leadership at the University of Sydney in 2012. "I made my original donation to help upgrade and, where necessary, build new research and education capability in the realm of projects and their leadership," he says.

Research suggests that failure rates for major projects generally run from 50 to 90 percent. In arenas from technology and infrastructure to new social programs, projects regularly come in over budget, behind schedule, or simply fail to deliver.

THANKS TO

the generosity of John Grill,
we're shaping tomorrow's leaders.

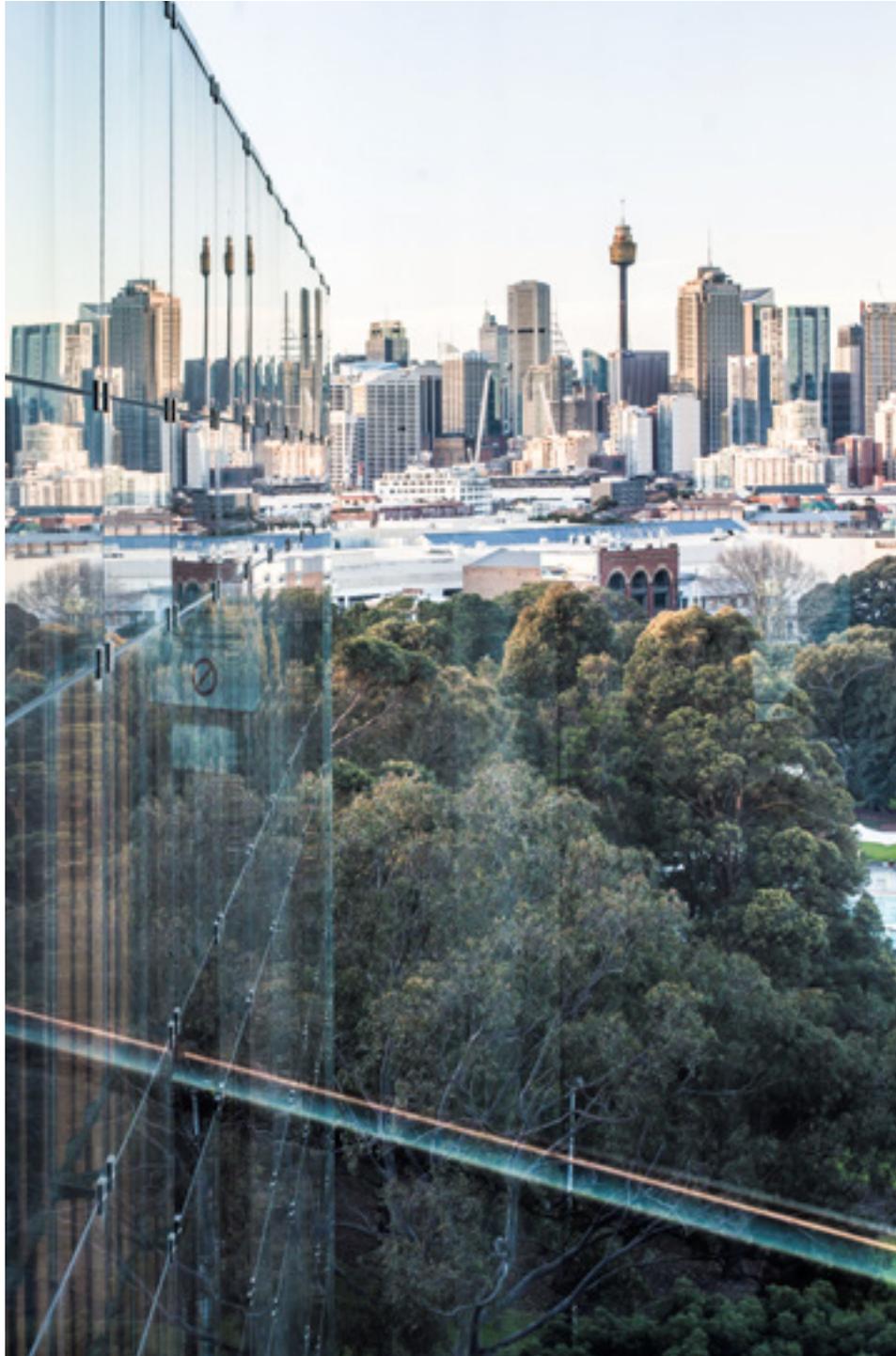
**“Having worked all my career
in government, it turned on
different lights in new rooms.
It gave me insights into how
different sectors work.”**

RACHEL ARDLER

Director of Healing and Reparations
Aboriginal Affairs NSW

←

Rachel Ardler
completed the Executive
Leadership in Major
Projects program.



CENTRE FOR SUCCESS

The John Grill Centre for Project Leadership has helped shape more than 500 project leaders and executives

across 12 government agencies and eight industry areas as they work on \$60 billion worth of projects.



Suresh Cuganesan, CEO of the original centre and a professor at the University of Sydney Business School, was part of the team that built the centre. It was a time of deep discussion and wide consultation, identifying on-campus collaborators in areas spanning psychology, social sciences and business. The team also consulted with government and private-sector organisations to understand their sense of the problem.

“At the time, the liquified natural gas projects in Western Australia were having huge cost overruns,” says Cuganesan. “The overruns were a symptom, but the core problem needed to be identified.”

One key issue that emerged was in the upfront planning of projects. Missteps at this stage can lead to cost overruns, delays, poor decisions and more. Clear problem definition and disciplined project governance are vital but often neglected aspects of project leadership.

The centre’s flagship course, Executive Leadership in Major Projects, is a four-week program spread across a year and supplemented by coaching, mentoring and diagnostics. There is nothing else quite like it.

More than 250 executives have undertaken the centre’s governance programs, 100 people have worked with participants from other organisations to solve problems in real time, and 200 have attended programs for project teams.

Looking at it another way, the centre has helped shape more than 500 project leaders and executives across 12 government agencies and eight industry areas as they work on \$60 billion worth of projects.

It would be easy to imagine that everyone using the centre is building roads, skyscrapers and tunnels, but the benefits are more wide-ranging. There are, for instance, no skyscrapers or tunnels on Rachel Ardler’s to-do list as Director of Healing and Reparations at Aboriginal Affairs NSW.

Her project involves rethinking how her agency and others build relationships with Aboriginal communities, taking into account the history of injustice, particularly that of the stolen generations. She works to build honest and collaborative relationships to create initiatives that happen with communities, rather than to communities.

Ardler completed one of the centre’s team-focused courses, then went on to do the Executive Leadership in Major Projects program.

“Having worked all my career in government, it turned on different lights in new rooms,” she

says. “It gave me insights into how different sectors work, so now I’m a lot more open to mixing up teams – involving creative people with technical people to come up with new ways of problem-solving.”

Elsewhere at the centre, collaborators from the University and external organisations are shaping the way we think about the future of project leadership. The Better Infrastructure Initiative is led by Garry Bowditch and supported by a number of Australia’s leading banks, investment bodies and infrastructure agencies. It is identifying practical ways to improve how large-scale investments in infrastructure are prioritised and managed – not just how they are built.

In early 2019, Grill made another multimillion-dollar gift to the University. That donation, which brought the INSPIRED philanthropic campaign to its billion-dollar target, will support the creation of the larger scale John Grill Institute of Projects.

This institute will incorporate major aspects of the existing centre and draw on the University’s longstanding Project Management Program, previously based in the Faculty of Engineering and Information Technologies. This program has more than 1000 undergraduate and postgraduate students, and is globally recognised for its excellence in project-management research.

The new institute will be the leading repository of university-based expertise in the domain of projects in Australia and, over time, in the world. Education offerings will range from PhDs to continuing education programs. Research will include comprehensive programs devoted to creating new scholarly and applied knowledge.

Governance will be based on an innovative combination of academic mechanisms for accountability, supported by an advisory board to help shape strategic direction.

Grill will serve as chair, with Nick Greiner, Ken Henry, Kevin McCann and Stuart McGill as independent members. They will be matched by an equal number of academic members, led by the University’s Provost, Professor Stephen Garton.

As the institute grows, it will help communities and individuals flourish by asking the right questions and building new organisational as well as individual capabilities.

“The University has just started on the long journey of helping Australia improve the leadership of projects,” says Grill. “The best is yet to come.” ✨

THANKS TO

a \$1 million gift from the Chancellor Belinda Hutchinson and Roger Massy-Greene, we're helping teachers inspire students in need.



↑ Sydney alumnus and scholarship recipient Eric Tran teaches at Arthur Phillip High School in Parramatta.

Making it *count*

A visionary gift helps maths and science teachers inspire school students in the classroom and beyond.

ON ONE OF HIS FIRST training placements as a young maths and science teacher, Eric Tran received a first glimpse of just how tough his new job might be.

“I wanted the students to copy down one sentence – one sentence – that was in a PowerPoint presentation about stem cells. And the first thing I heard was, ‘Sir, why are you making us write so much?’”

It came as a shock. “I thought, ‘You’re in Year 10 – how have you not written more than one sentence?’”

It was an early reminder to rely more on the real-world application of ideas he had learnt in his Master of Teaching

as a recipient of one of the University of Sydney’s Eureka Benevolent Foundation Scholarships. These scholarships support outstanding science, technology, engineering and mathematics (STEM) students throughout their master’s degree, and for two years afterwards if they go on to teach in a low socioeconomic status (SES) school.

The scholarships are possible thanks to a generous donation of \$1 million from the University’s Chancellor Belinda Hutchinson and her husband Roger Massy-Greene through their Eureka Benevolent Foundation. They made the

donation in 2015 to address the critical lack of STEM teachers in low SES schools, as well as the drop in students choosing those subjects in high school. In recent years, the number of students taking advanced and intermediate maths has dropped from 54 percent to 36 percent.

“By providing disadvantaged schools with access to the best and brightest STEM teachers, we hope to equip children, regardless of their socioeconomic background, with the necessary skills to participate in the economy of the future,” the Chancellor said at the time of the gift.

“These kids don’t have time to go to tutoring because they have to go to jobs at Maccas or whatever. So the only time they can learn is actually in class.”

ERIC TRAN

Teacher and Eureka
Benevolent Foundation Scholar

Associate Professor Judy Anderson is the director of the University’s STEM Teacher Enrichment Academy, another initiative funded by philanthropy – this one through an anonymous gift. She says the goal of the Eureka Scholarships is “to provide STEM role models for students who may not have a STEM professional in their immediate family or network”.

Some children in lower SES schools come from families where no-one has ever attended university. And there could be other issues at play, such as intergenerational unemployment. “One way to break the cycle is to get these students to stay at school and do these sorts of subjects and see if there is a viable pathway to go to university or follow some other STEM career path,” says Anderson.

The Eureka Benevolent Foundation Scholarships are awarded to seven students each year. As the students graduate and enter the workforce, they will form a cohort of teachers equipped to inspire students in low SES schools across the state. Already, graduates of the program are embarking on teaching careers in places from Granville to Albury.

Tran grew up in Canley Vale in western Sydney, the son of two chefs. He got such good marks at school that his aunts asked him to help their children

with maths and science. In Year 10, he joined a program at his school which asked seniors to help younger students from Chinese backgrounds learn English. Even so, it hadn’t occurred to him to go to university until a teacher suggested it.

While studying for his Bachelor of Advanced Science and Honours in Biochemistry and Technology at the University of Sydney, he continued tutoring. He decided to pursue teaching, partly inspired by his students.

“They were like, ‘Sir, I really learnt a lot today’. And they were going home telling parents what they learnt. It was exciting to hear. So I thought, I’ll do a Master of Teaching and see where I go from there.”

The scholarship provided Tran not just with extra funds that allowed him to devote more time to his studies, but also guided him to a school where he was most needed. Now 26, he teaches classes of about 25 students at the co-educational Arthur Phillip High School in Parramatta. Even though he has been teaching in one form or another for half his life, he says his work there is even more rewarding than he had hoped.

“It’s a lot better than I expected, because of the school I’m at ... These kids don’t have time to go to tutoring because they have to go to jobs at Maccas or whatever. So the only time they can learn is actually in class. So if I can provide everything that I can for them, then that’s meaningful.”



Tran tells his students he is “opening doors for them” but says he has learnt a lot from them too, going back to his teenage years tutoring English, when he learnt to be patient. “Sometimes it would take 20 minutes for them to read one sentence. That’s when I learnt that sometimes it will take a little longer for some people to learn things than others. And that’s perfectly fine.”

He’s still learning from his students at Arthur Phillip High School. “They constantly remind me to include real-life context. And they keep me humble. They keep me realistic. Not everybody can do the hardest mathematics questions but I keep on bringing them activities that I can do to show them. I try to make my lessons fun. They’re learning and I’m learning as well.” *

What *giving* gives me

DONOR Cathryn McKern (BA '67 PhD '71)

GIFT Planned bequest to the Sydney Conservatorium of Music



“WE DIDN’T HAVE a lot of money when I was growing up. Now I want to make sure that a young person who really wants to do something isn’t prevented by a lack of funds.

I decided to leave a bequest to support scholarships at the Conservatorium. I think helping people to develop a musical career can benefit the whole community.

My mother played the violin. We used to play duets together, with me on the piano. I bought a piano when I was about 25 and I’ve had it for – golly – it must be going on 50-odd years.

These days I have bad arthritis in my hands. I was still able to play a little, but I’d try and hit a B-flat and end up hitting B. I just sort of gave up at that stage. It was too disappointing.

The piano is so dead when I can’t play it so, when I was talking to the Conservatorium Dean, Professor Anna Reid, about the giving programs, I said it would be lovely to have a student come and practise at our home.

That’s how I came to meet Akiho. She’s a student at the Conservatorium and she’s been playing piano since she was seven. It’s difficult for her to practise at her home because it’s very loud in a small house. So she comes over here and when she practises, the music just flows out. It makes the house feel warm and alive. Akiho has given me far more than I’ve given her. All I’ve given her is the opportunity to bang on the piano, which is a great pleasure to me. I have a real sense of wanting her to succeed. In giving to the Conservatorium, I hope to encourage people like her.

I feel so much better about the prospect of death now I know I’ve got some control over what I can achieve when I’m no longer here. That sounds silly but, you know, you need to leave what you have to somebody. If you can ensure it goes towards something important, you feel as though you have exerted some control to do something valuable in this world.”

“Akiho has given me far more than I’ve given her. All I’ve given her is the opportunity to bang on the piano, which is a great pleasure to me.”

↑

Music student, Akiho Suzuki (left) practises piano at the home of donor Cathryn McKern.

“

THE GENEROSITY OF OUR DONORS
MEANS WE ARE ABLE TO CREATE
A NEW, VIBRANT MUSEUM WHERE
THE ARTS AND SCIENCES MEET,
AND ANCIENT WORLDS ENCOUNTER
CONTEMPORARY ART AND IDEAS.

—

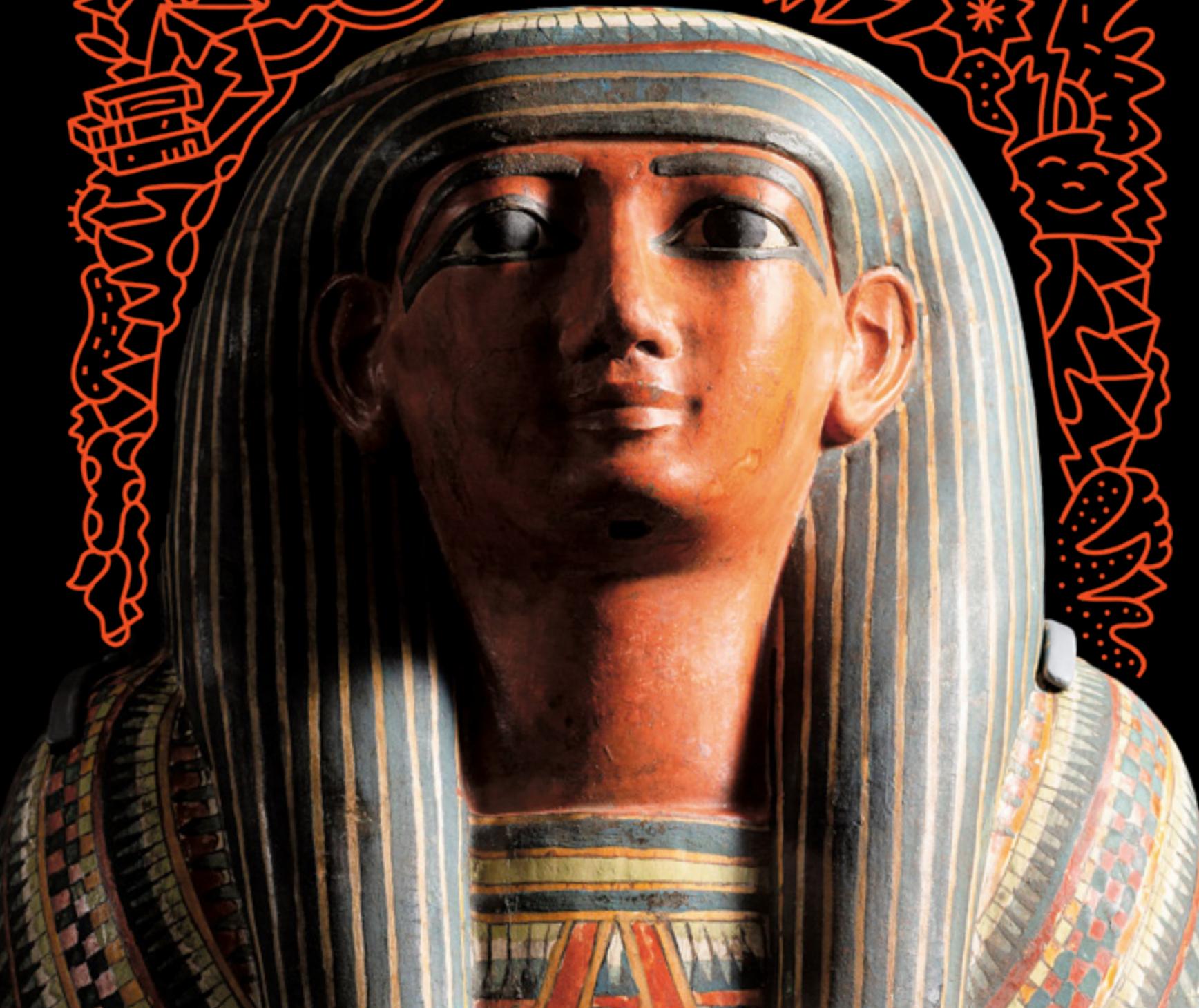
DAVID ELLIS

Director of Museums and Cultural Engagement

SEE STORY PAGE 66

INVESTING IN PEOPLE AND BUILDING A BETTER CAMPUS

COMMUNITY



THANKS TO

\$22 million in philanthropic gifts,
we're building a new museum for Sydney.



ROOMS WITH A VIEW

The building rising from the ground on University Avenue is the next step in a long history of philanthropic support for our museums.



Inside the Chau Chak Wing Museum, render by JPW Architects

THERE ARE MORE than 450,000 treasures in the University's museum collections, from ancient Egyptian mummies and taxidermied animals to masterpieces by famous artists. Until now, most of these have been hidden from public view. In the University's existing gallery spaces, there is room to display just 1 percent of the collections' objects.

"We have these incredible collections but they were being let down by the infrastructure," says David Ellis, the University's Director of Museums and Cultural Engagement.

That is set to change, thanks to \$22 million in philanthropic gifts to establish the Chau Chak Wing Museum, currently rising from the ground on University Avenue. Once complete, the museum will represent a quantum leap forward in the way the University displays, uses and stores its collections – a leap that won't only benefit students and researchers but the public, too.

The new building – named for its major donor, the philanthropist and entrepreneur Dr Chau Chak Wing – will blend the collections of the Nicholson Museum, the Macleay Museum and the University Art Gallery. It will have space to display double the number of objects, and allow visitors to interact directly with them.

An auditorium, study space, café and shop will round out the experience – and there will be no entry fee.

For students and researchers, custom-designed study areas will bring fresh life to old objects. They will be able to get hands-on with the collections and use sophisticated analytic equipment to test objects' chemical composition to uncover the secrets of the past. "We're creating new opportunities for object-based learning," says Ellis.

The gifts from Dr Chau and fellow principal donors, Penelope Seidler, the Nelson Meers Foundation and the Ian Potter Foundation, continue a tradition of philanthropic support for the University's museums.

The Nicholson Museum was founded in 1860 after Sir Charles Nicholson, the University's second chancellor, donated his private collection of antiquities and curiosities.

The Macleay Museum also has roots in philanthropy; it is named for the family who donated their collection and provided the funds for a curator in the late 19th century.

The Chau Chak Wing Museum is the next step in a long history. "It's in a symbolic area in front of the Great Hall and opposite the Fisher Library," says Ellis. "The great cores of learning – the library and museum – will be side by side in front of the University's historic centre." ✱

SUPPORT FOR OUR CAMPUS

Alexander Cambitoglou: Support of the Nicholson Museum and Australian Archaeological Institute at Athens

Dr Chau Chak Wing: Chau Chak Wing Museum

The Ian Potter Foundation Limited: Chau Chak Wing Museum, cultural, scientific and medical research across faculties

Nelson Meers Foundation: Chau Chak Wing Museum, Brain and Mind Centre Creative Arts Program, Widening Participation in English Project, Power Institute Digital Portfolio Project and publications, Art History lectureship

Andrew Rogers: Sculpture, *Individuals*

Penelope Seidler: Chau Chak Wing Museum and Museum Digitisation Program, Penelope Visiting Professor in Architectural History, Wilkinson Building refurbishment

TAG Family Foundation: sporting infrastructure

Family of Dr Charles Warman: Great Hall Lighting Project, Clinical Education Centre at Sydney Adventist Hospital





Inside the museum

The Chau Chak Wing Museum could not have been built without the generosity of donors, so it seems fitting that many of the objects destined for its galleries are themselves donations. These artworks and artefacts – all gifts from University donors – will be on display when the museum opens in 2020.



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1. ETRUSCAN MIRROR

This Etruscan mirror (c. 350 BC) shows Achilles killing Troilus at the Battle of Troy. It was donated to the University by sisters Evelyn and Beatrice Tildesley, who studied at Cambridge before arriving in Sydney in 1913 and 1915 to teach at a girls' school. Evelyn eventually became acting principal of the Women's College. Record number: NM73.1

2. GOLD DINAR COIN

This gleaming coin was minted in Damascus during the Umayyad Caliphate, which spanned the sixth and seventh centuries AD. It was donated to the Nicholson Museum by Crown Prince Hassan of Jordan when he

visited Australia in 1977. His gift was a symbol of the two nations' close relationship, strengthened by the University's archaeological digs in Jordan. NM77.23

3. SLIDE RULE

One of the University's first female doctoral students of architecture, Dr Valerie Havyatt, was a collector of precision drawing instruments and slide rules. She also worked with the University's curator on the Macleay Museum's collection of scientific instruments. This slide rule was one of the items she donated in 2013. Its usefulness has been outdated by modern technology but its beauty is unquestionable. SC2014.218.1

4. POWER PAINTING

The University's biggest ever bequest was worth a mighty \$34 million in today's money. It was left in the will of alumnus John Power, a doctor-turned-painter who became, says senior curator Dr Ann Stephen, Australia's most important cubist. "He's little known today for several reasons," says Stephen. "He was an expatriate; he did not need to sell his work; and almost all his artworks were given to the University by his wife, Edith Power. The new museum will finally allow his work to be seen." The University holds more than 1000 Power works, including the pictured *Femme à l'ombrelle* (1926). PW1961.83

OBJECTS OF DESIRE



Once the Chau Chak Wing Museum opens in 2020, it is predicted to draw **120,000 visitors** annually.

There are more than **450,000 objects** in the University's collections.



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5. RUSSIAN ICON

Roddy Meagher was a NSW Supreme Court judge and an avid art collector. On his death in 2011, he bequeathed his collection of paintings, drawings, sculptures, carpets, ceramics, furniture and archaeological artefacts to the University, where he had studied and taught. He was a devout Catholic and his collection included 15 icons, including this 15th century example. UA2012.688

6. MUMMIFIED CAT

When Margaret St Vincent Welch moved into care at the age of 91, her daughter Rosemary Beattie sorted through her mother's possessions. Among them

were 182 ancient Egyptian artefacts that had belonged to her grandfather, a former Sydney student who served as a First World War doctor in Egypt. Beattie donated the artefacts, including this mummified cat, to the University. Despite the cat's distinctively shaped ears, it could be a fake, albeit an ancient one. Mummies created to resemble animals were often bought by poorer Egyptians as budget offerings to the gods. NM2017.262

7. STATUE OF HERMES

This 2000-year-old marble statue, a donation from Sir Charles Nicholson's UK-based sons in 1934, once sat by the duck pond

at the Nicholson family home in Hertfordshire. Its years outdoors have left it weathered but also kept it safe from the fire that burned down the house in 1899. NM35.12

8. STREETON PAINTING

Alumnus Neville Grace was a property lawyer who lived in a penthouse filled with art, overlooking the harbour in Elizabeth Bay. As an art collector, he specialised in Australian post-impressionist paintings. On his death in 2017, he bequeathed 63 works to the University, among them *Grand Canal Venice Palazzo Labia* by celebrated Australian artist Arthur Streeton. UA2018.83

9. AMPHORA

In Ancient Greece, this amphora was probably used to serve wine on social occasions. Senior curator Dr Jamie Fraser bought the piece over the phone at a London auction last year. He made the winning bid from Sydney, sitting on the couch, wearing his pyjamas. "England was playing in the soccer World Cup at the time, which I think helped lower the price," he jokes. The funds for the purchase came from the bequests of Mary Tancred and Shirley Joan Atkinson. They left money for the purchase in honour of Professor Alexander Cambitoglou, who curated



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13.

the Nicholson Museum's antiquities for 37 years. NM2018.136

10. COFFIN OF PADIASHAIKHET

Former provost and chancellor Sir Charles Nicholson bought this coffin complete with mummy from an antiquities dealer in Egypt. For more than 150 years, it was assumed that the mummy inside was Padiashaikhhet – as identified on the coffin. More recently, radiocarbon dating has proved the mummy is an impostor. Tests date the coffin to about 700 BC, while the mummy is 800 years younger. The seller had sliced off the mummy's toes and knuckles to make it fit. NMR.28.1-3

11. OMIE BARKCLOTH

The Omie people of Papua New Guinea create these cloths by pounding the inner layers of tree bark on rocks, then stretching them to form a canvas for richly evocative paintings. This barkcloth is one of more than 100 donated last year through the Commonwealth Government's Cultural Gifts Program by Todd Barlin, Director of the Oceanic Arts Australia gallery in Paddington. ET2018.56

12. PEACOCK MOSAIC

Sir Charles Nicholson was a master of reinvention. After the English doctor arrived in Sydney in 1833, he became a businessman

and politician. He went on to become the University's provost and chancellor, and helped found the Nicholson Museum by donating his collection of antiquities. But his greatest act of transformation had happened years before, when he shed the stain of his illegitimate birth by changing his name. This mosaic – one of the items from his collection – has its own story of reinvention. Records indicated that Nicholson bought it in Sicily, but recently, a volunteer discovered its handwritten receipt, which proved it was actually a funerary mosaic from Rome. "Museums are not static

places," says senior curator Dr Jamie Fraser. "We're constantly learning new things." NMR.1062

13. GOLD NUGGET

This nugget was donated in 1892 by Lady Susan Macleay, the daughter of the University's then chancellor. Its 1851 discovery in Ophir, NSW, is thought to have started the first Australian gold rush. University staff unearthed and photographed it in 1955, after which it sank out of institutional memory until 1983, when it was found to have mysteriously changed shape – and lost three quarters of an ounce in weight. SC2008.5

What *giving* gives me



DONOR Eleanor Jew

GIFT \$350,000 to the Brain and Mind Centre and the University of Sydney School of Veterinary Science

“MY FATHER GRADUATED from the University of Sydney with a Bachelor of Veterinary Science in 1975. He cared deeply for animals and their welfare and would always bring sick animals home to look after.

He died from cancer in 2008 when he was 57. My gran died of Alzheimer’s eight years later at the age of 95.

When my gran died, my family and I decided we wanted to use the money she left us to support research and education at my dad’s old university. We made one gift in gran’s memory to support Alzheimer’s research at the Brain and Mind Centre, and one in memory of my dad to support scholarships for veterinary science students. My uncle – my dad’s brother – contributed as well.

One of the scholarships we support is the Jew Family Travel Scholarship, which gives veterinary students the experience of seeing what animal welfare is like in other places. We might be in Australia, where animals are often given a really high level of care, but in most of the world, they’re not. I’m hoping the scholarship will give the beneficiaries a different perspective.

There’s another scholarship – the Graham Frederick Ramsey Jew Scholarship, named for my father – to support students experiencing financial difficulties. Equality in education was something my father felt was very important.

Recently, I visited the Brain and Mind Centre, where we support dementia research. It was interesting to see the advances they’re making in understanding how the brain works. It made me feel that the gift may have a positive impact and give researchers the freedom to concentrate on completing their work.”

“Equality in education was something my father felt was very important.”



MORE THAN 64,000 DONORS

gave to the INSPIRED
campaign

32,299

alumni

31,271

non-alumni

2223

organisations

When an operation for brain cancer left a boy's face paralysed, a University surgeon and an anonymous donor stepped in to help.



Saving Caleb's *smile*

CALEB SCOTT WAS ONLY NINE years old when he was admitted to hospital for surgery. Three days earlier, he'd been diagnosed with medulloblastoma – a fast-growing brain cancer. Without an operation to remove a large tumour, he had around two weeks left to live.

Reflecting on that traumatic time in 2015, his mother, Suzanne Turpie, says the family was focused only on Caleb's survival. They had barely absorbed all the possible outcomes. In recovery, however, it was immediately apparent something was wrong.

Caleb's tumour was gone, but so was the movement on the right-hand side of his body, including, most noticeably, his face. "Going into the operation, they were just talking about saving his life, which of course was paramount," his mother recalls. "We never prepared ourselves for him losing his smile."

With an impressive commitment to physiotherapy, Caleb regained his ability to stand and walk. But his face – which everyone hoped would recover movement as his brain healed from surgery – remained paralysed. After nine months, doctors told Caleb and his parents the damage was likely to be permanent. It was a psychological blow they had not anticipated.



THANKS TO

an anonymous donor, our specialist surgeons saved a child's smile.



**“When he smiled,
he looked
different, and
kids can be cruel.
We really wanted
to try and fix it.”**

SUZANNE TURPIE
Caleb's mother

“Unfortunately, in this day and age we have to think about him growing up with online media and bullying. When he smiled, he looked different, and kids can be cruel,” says his mother. “We were concerned about the impact that would have on him going into high school, and later on in life. But more than that, it was just a reminder every time he smiled of what had happened, and we really wanted to try and fix it.”

Conversations with other parents in medulloblastoma-support forums alerted them to a possible surgical solution. But it seemed the surgery was rarely performed in Australia and Caleb’s family could not afford a trip overseas. The possibility of a cure seemed remote.

It was around this time that the Cure My Brain foundation got in touch. The organisation works to support families affected by brain cancer. Hearing that the family’s greatest wish was to restore Caleb’s smile, the foundation facilitated introductions to specialists at the Chris O’Brien Lifehouse. Among them was University of Sydney clinician and researcher, Associate Professor Sydney Ch’ng, who holds an uncommon double-specialty in plastic surgery and head-and-neck surgery. She agreed to take Caleb’s case.

In July 2018, Caleb underwent six hours of surgery led by Ch’ng. She and her team took a piece of muscle from his leg, then used microsurgery to attach a nerve within the muscle to another nerve in Caleb’s cheek – one ordinarily responsible for chewing and clenching. Ch’ng joined artery to artery and vein to vein with sutures finer than hair, magnified eight times under a microscope.

Surgery of this kind doesn’t come cheap. The surgeons worked for free, but there were other costs involved, including the specialist care Caleb needed after the operation. An anonymous donor and fellow Lifehouse patient stepped in to help. Inspired by his own experience with cancer, the donor had made a gift to establish the Lifehouse Hardship Fund, which supports patients in need. His donation to Lifehouse – a partner in the University’s INSPIRED philanthropic



campaign – helped cover Caleb’s specialist one-on-one observation and nursing care.

The operation immediately restored symmetry to Caleb’s face, but it was too early to tell if it had saved his smile. Then, after five weeks, there was a twitch in the relocated muscle. Caleb could move his face. The transplant had worked.

Before Caleb’s procedure, Lifehouse was not set up as a paediatric oncology hospital. “It took a year of preparations to make sure the Ministry of Health would give us the go-ahead to operate,” says Ch’ng. As a result of Caleb’s pioneering admission and good outcomes, the hospital is now able to take children as young as 11, and who weigh as little as 37 kilograms.

Since the surgery, it’s been up to Caleb to do the hard work of rehabilitation, relearning how to smile by clenching his teeth to activate the repurposed nerve. It is hoped that over time, his young brain’s plasticity will render the process automatic.

“Following this surgery, his confidence just skyrocketed,” says his mother. “I didn’t think it would have such an impact on his overall wellbeing, but he is just shining now.”

Ch’ng says mindful philanthropic giving is especially needed for cases

requiring reconstructive plastic surgery, because patients often struggle to advocate for themselves. “Many of these patients are so affected in terms of appearance, in terms of function, that it’s hard to actually get them to come out and champion the cause of reconstructive surgery,” she says.

Caleb started high school this year. He gets tired moving between classes, but remains optimistic that this is another adjustment that will settle over time. Where he used to play rugby union, soccer and participate in Nippers, he’s moved to sports that better suit his changed abilities, enjoying Muay Thai and karate. “This gets his body moving and helps him with his balance and coordination,” says Turpie. “He loves the ‘rough’ stuff and it suits him down to a tee.” *



The passions of our donors live on through charitable bequests, inspiring generations of researchers and students.

Legacies of *love*

Elwin à Beckett – Ellie to those who loved her – lived her whole life in the NSW town of Wellington. Relatives remember her inquiring mind and interest in other people, as well as her frugality.

It seems likely that à Beckett had modest expectations of how her name would be remembered. But there are researchers at the University of Sydney who will never forget her name. Thanks to her, they are working to tackle a disease that kills thousands of Australians every year.

Before à Beckett died in 2013, she decided to leave the bulk of her estate to the University to support bowel cancer research. Her \$15 million bequest in memory of her brother Martin, who died of bowel cancer in 1986, funds a fellowship program for early- and mid-career researchers, as well as other research initiatives.

The bequest from à Beckett is one of more than 300 to the University during the INSPIRED campaign. In total, bequests have contributed \$227 million to the campaign, supporting scholarships and research across every faculty.

Bequests often reflect the passions that drove our donors during their lives. The late John Rowe, for instance, was a book lover. His bequest supports study and research in Australian literature.

Anna Breinl, who died in 2018, directed her bequest towards scholarships, an expression of gratitude for the philanthropic support her family received for their education after they arrived in Australia as refugees from Hungary.

Those who leave bequests inspire our researchers and students for generations to come.

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Thank you

The stories in this publication represent a fraction of the work the INSPIRED campaign has made possible. Every donation helps our researchers and students as they work towards a better world. We are grateful for every gift, and humbled by the generosity of every donor.

The University extends its thanks to each one of you. We acknowledge those who gave anonymously and through the international foundations that support the University's work. We thank our campaign partners, including the residential colleges and the medical organisations that work with us to improve health care.

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