



## YEAR IN REVIEW

Here we look back at some of our achievements throughout the year and applaud some of the bold and brave thinkers who are transforming lives.

### JANUARY AND FEBRUARY

#### Defence forum focused on emerging research

- Leading research on emerging Virtual and Augmented Reality technology was on show at the University-hosted, Australian Defence College (ADC) Simulation Forum. The University and ADC have a Memorandum of Understanding (MOU) to collaborate on research into the use of virtual simulation for training.

#### Continuing to lead in gender equity

- For the fourth consecutive year, we received the Employer of Choice for Gender Equality (EOCGE) citation by the Workplace for Gender Equality Agency (WGEA). One hundred and twenty organisations received the citation this year.

### MARCH

#### Six subjects ranked in top 100

- Fifteen subjects, including six in the top 100 were included in the 2018 QS World University Subject Rankings. The University's Mineral Engineering subject maintained its ranking at number 30. Two subjects – Sport and Anatomy – entered the independent global rankings for the first time with Architecture, Nursing and Education rounding off our top six.

#### Launch of new education record label

- In a move set to disrupt the Australian music business, the University launched Baraya Records – a new-breed record label designed to create a pipeline of emerging Australian musicians. The label allows artists to fast track their careers and combines education with real-world industry exposure and mentorship.



**SAGE ATHENA SWAN BRONZE AWARD**

Executive Director SAGE Dr Wafa El-Adhami (third from left) congratulates University of Newcastle Data Analyst Petrina Mosley, Equity and Diversity Manager Rachel Fowell, Pro Vice-Chancellor (Research and Innovation) Professor Deb Hodgson, Vice-Chancellor Professor Alex Zelinsky AO and Director, People & Workforce Strategy Tina Crawford.

**APRIL**

**Career Expo and networking event attracts key business leaders**

- Over 700 of our high-performing students were targeted by more than 50 local businesses including AmpControl, Defence Force Recruiting, Lendlease, Pitcher Partners, the Australian Taxation Office and Transport for NSW. The event strengthened local business relationships and highlighted our continuing commitment to supporting work-ready graduates.

**A generosity of spirit lives on**

- Dr Alan Hewson (1927 – 2017) obstetrician and gynaecologist is remembered for his surgical skill, patient rapport and clinical teaching. In his will, Dr Hewson bequeathed his extensive book collection to the University, along with a gift of \$50,000 ‘to be used or applied for the general purposes of continuing medical education of medical practitioners in the Hunter region of New South Wales.’

**MAY**

**Marking the first year of our landmark education facility**

- The University’s Chancellor Mr Paul Jeans and Vice-Chancellor Professor Caroline McMillen welcomed the Premier of NSW, Gladys Berejiklian and the NSW Minister for Education, Rob Stokes at our official opening of the \$95 million NeW Space facility as it reached its first year of operation. The building was funded through a partnership between the University and State and Federal Governments.

**Increasing support for refugee students to transition to higher education**

- The University of Newcastle, in partnership with Curtin University and Macquarie University, completed a three-year Office of Learning and Teaching national research project that identified a number of unique challenges faced by refugees pursuing further education. Outputs from the research included new tools to support students at this critical point in their education journey.

# YEAR IN REVIEW

## JUNE

### Eighth Vice-Chancellor announced

- The University announced the appointment of Professor Alex Zelinsky AO as its next Vice-Chancellor and President. A world-renowned computer scientist, roboticist, systems engineer and most recently Australia's Chief Defence Scientist, Professor Zelinsky's career spans innovation, science and technology, education, research and development, and commercial start-ups. Professor Zelinsky will be the eighth Vice-Chancellor in the University's 53-year history, succeeding Professor Caroline McMillen who announced her intention to retire in 2017.

### Continuing our climb up the QS World University Rankings

- Moving up ten places since last year and rising 84 places since 2014, The University of Newcastle ranked 214th in the prestigious 2019 QS World University Rankings bringing the University closer to its goal of breaking through to the world's top 200 universities by 2020.

## JULY

### English Language Centre in the top six in the world

- Students from the University's English Language Centre have ranked the institution in the top three in Australia according to the most recent English Language Teaching (ELT) Barometer. The survey also placed the centre in the top six in the world, an increase of over 53 places since 2016. The bi-annual survey, measured student experience and satisfaction by polling 19,000 global students.

### Automation and Control ranked eighth in the world

- The latest Academic Rankings of World Universities saw Automation and Control ranked eighth with five other subjects also ranked in the world's top 150 for 2018.

## SEPTEMBER

### New agreement offers safety research opportunities for students

- SafeWork NSW's Centre for Work Health and Safety and the University have committed to work together to develop work health and safety research expertise in Australia.

Parliamentary Secretary for the Hunter Scot MacDonald MLC confirmed that the Centre and the University's Memorandum of Understanding (MOU) would allow university students and academics to engage in real-world work health and safety research to develop smarter, more innovative solutions.

## AUGUST

### Linking farm, field and laboratory

- Australia's largest collaborative soil research initiative launched to support farmers to increase their productivity and profitability. The Soil CRC brings together scientists, industry and farmers to find practical solutions to address underperforming agricultural soils. The Soil CRC will be funded until 2027 with \$40 million from the Australian Government, \$20 million from Soil CRC partners and \$104 million from in-kind contributions.

### Researchers recognised for their scientific contributions

- Two outstanding mid-career researchers also received almost \$2 million in Australian Research Council (ARC) Future Fellowships to advance their research discoveries in the fields of microbiology and the humanities.

Dr Karl Hassan received \$874,125 to identify why some bacteria are resistant to drugs, while Professor Rosalind Smith received \$1,054,816 to examine women's textual practice in the English Renaissance.

- Two emerging researchers, Dr Andrew Gardner and Dr Serene Yoong, were winners in the NSW Young Tall Poppy Science Awards. Concussion expert with Hunter New England Health (HNEH) and the Hunter Medical Research Institute (HMRI), Dr Gardner is investigating the longterm effects of sports concussion in retired professional rugby league players. As a dietitian expert also working in conjunction with HMRI, Dr Yoong is developing and implementing nutrition guidelines in childcare centres to help address childhood obesity.

### Massacres map wins GeoCart award

- The Colonial Frontiers Massacres Map has won the 'best digital map' award at the 2018 New Zealand Cartographic Society GeoCart Conference. The map was submitted to the National Map Exhibition where judges assessed its stated purpose, design, execution and presentation.

Developed by University of Newcastle historian, Professor Lyndall Ryan, a member of the Centre for 21st Century Humanities and the Centre for the History of Violence, the map stems from a project funded by an Australian Research Council (ARC) grant investigating Violence on the Australian Colonial Frontier, 1788-1960.

## OCTOBER

### Statement of Intent for Aerotropolis precinct announced

- The State government signed a Statement of Intent with the NUW Alliance (University of Newcastle, University of Wollongong and University of NSW) and Western Sydney University to create a new higher education precinct in Western Sydney adjacent to what will soon be Badgerys Creek Airport.

Sharing in the vision for the new 'Aerotropolis precinct', the four universities will be partnering to create a single institution where students will have unparalleled access to industry research, development and employment opportunities.

The project will have a clear focus on science, technology, engineering and mathematics (STEM) education.

### Researchers awarded prestigious fellowships

- Internationally renowned clinical psychologist Professor Amanda Baker, and Conjoint Professor David Durrheim, a leading public health researcher and advocate for immunisation, were among 37 new Fellows elected to the Australian Academy of Health and Medical Sciences (AAHMS) in recognition for their outstanding contributions to health and medical research.

## DECEMBER

### Commitment to equity and inclusivity recognised through Athena Swan Bronze award.

- The University of Newcastle was one of only 15 universities or research institutes nationwide to receive a SAGE Athena SWAN Bronze Award.

This recognition is an important milestone in the University's ongoing journey to achieve gender equity and supports the steady progress made to create real change. The University recently completed its two-year pilot program and is focusing on a range of initiatives in its four year plan including: the establishment of key leadership roles among them being the inaugural Women in STEMM Chair and five new Assistant Deans Equity and Diversity roles; the setting of KPIs for STEMM faculties where the greatest underrepresentation of women exists; ongoing funding for Women in Research Fellowships; and the engagement of leaders and staff through our Gender Equality Leadership Pledge.

The Science in Australia Gender Equity (SAGE) initiative, established to pilot the United Kingdom's Athena SWAN Charter in Australia, aims to improve gender equity and diversity in science, technology, engineering, mathematics and medicine (STEMM) within the Australian higher education and research sector. It is the first time the initiative has been run in Australia.

## NOVEMBER

### University partnerships demonstrate powerful community impact

- The University of Newcastle was recognised for successfully developing and driving industry collaborations that provide significant benefits to Australian communities and beyond. Two projects, one led by Professor Darren Shafren and another led by Dr Terry Burns, were recognised for demonstrating high impact at the prestigious Business/Higher Education Round Table (BHERT) Awards.

Recognising one of the largest biotech transactions in Australian history, Professor Shafren received the Outstanding Collaboration in Research and Development Award for his investigational anti-cancer therapy, CAVATAK<sup>®</sup>.

Established in the year 2000 as a capacity building outreach program to inspire primary and high school students to engage in science, technology, engineering and mathematics (STEM) subjects, the Science and Engineering Challenge (SEC) led by Dr Terry Burns, received the Outstanding Collaboration in Community Engagement Award. The initiative is one of the longest-running and most successful STEM engagement programs, reaching almost 50,000 people every year.

 See page 47 for more on the CAVATAK<sup>®</sup> Biotech story.

### Heart failure researcher named rising star

- Associate Professor Aaron Sverdlov was recognised with the 2018 Ministerial Award for Rising Stars in Cardiovascular Research.

Associate Professor Aaron Sverdlov, The Director of Heart Failure at the University of Newcastle and Hunter Medical Research Institute (HMRI) was recognised for his research work in the area of heart failure and cardio-oncology (cardiovascular complications of cancer therapy).

### The art of problem solving

- The University's engineering and computing exhibition, The Art of Problem Solving, was featured in the main gallery at Newcastle Museum as part of its Supernova Summer of Science program. The exhibition showcased our most exciting innovations – sensor gloves that teach sign language, a heart-rate monitor for cows, a VR game to teach literacy, satellites that map climate change and a computer game you control with your mind.



# AWARDS AND ACHIEVEMENTS

Education transforms lives – and it is this belief that underpins what we do. It drives our commitment to teaching and learning, unlocking students’ potential and preparing them to better shape the world.

## STUDENTS

### Life after death

Natural History Illustration student, Amie Jessop, won the major category of ‘Portfolio Winner’ in Unisights ’18, the National Campus Photo & Video Competition.

Amie’s winning portfolio focused on specimens from the University’s wildlife lab with detailed studies looking at the form of a skull and the teeth of a frog. Amie walked away with \$1,000 cash, a \$1,500 Canon voucher, a personalised mentoring session and a \$1,500 voucher for the University.

 For more information visit [unisights.com.au/artwork/life-after-death](https://unisights.com.au/artwork/life-after-death)

### Wellness through surf therapy

Occupational Therapy alumnus, Joel Pilgrim won a 2018 Westpac Social Change Fellowship for individuals who are committed to leading positive social change in Australia.

Joel has combined his love of surfing with his experience in mental health clinics to create the Waves of Wellness Foundation (WOW), a mental health charity promoting wellness through surf therapy. He has also written a children’s book, ‘Stand Up Stand Out’, to help young people think about mental health early on in life.

Joel’s community commitment was also recognised when he was shortlisted as a finalist in the 2018 NSW Young Australian of the Year and the 2016 University of Newcastle Alumni Award for ‘Exceptional Community Service’.

### International recognition for Chamber Choir

The University’s Chamber Choir, Echology, claimed first place at the International Kathaumixw Choral Festival in Canada in the Adult Equal Voice division and second place in the Chamber Choir category. The multi-award winning choir of current and former students and staff performed renaissance, contemporary and Indigenous-inspired pieces.

## < NATIONAL PHOTOGRAPHY AWARD

Natural History Illustration student, Amie Jessop, won the major category of ‘Portfolio Winner’ in Unisights ’18, the National Campus Photo & Video Competition.

### Student designs new healthcare solutions

An Honours student from the University will be one of the first to employ his innovative skillset to tackle some of the nation’s biggest health issues through an inaugural scholarship scheme donated by Australian health insurer, nib.

The nib Scholarship for User Centred Design Research allows honours research students to explore the role that design can play in communicating healthy lifestyle behaviours.

Visual Communication Design Honours student and scholarship recipient, Richard O’Regan, is particularly keen to understand why some people are less proactive about their health than others and the role that interventions can play in helping them to adopt healthier lifestyles.

### Innovating health care in regional Australia

An online support tool developed by PhD student, Brian Hill, won the ‘Regional Australia Institute’s 2018 Lightbulb Moments’ competition.

The CleanM8 platform is a suite of digital tools that support people who are recovering from addiction to alcohol and other drugs (AOD) along with their clinicians and support carers.

The tool also helps to encourage new habits and reduce the risk of relapse. As an occupational therapist and health-tech innovator, Brian’s project was inspired by seeing friends lose loved ones and from his experience with local doctors and rehabilitation services.

### Tourism student’s talent shines through

Third-year business student, Morgan Page, who was nominated by her lecturers, was the proud recipient of a Minister’s Student Achiever Award recognising her academic achievement and promising talent.

Morgan’s Business degree has allowed her to travel to Fiji under a New Colombo Grant for an international work placement to support community tourism development. She completed work experience at Taronga Zoo in Sydney and also volunteered at an international tourism and hospitality conference hosted by the Newcastle Business School this year.

With future plans to work as a destination development officer or in destination marketing, Morgan will further hone her skills when she takes up a graduate position with Flight Centre Travel Group early next year.

Morgan was one of 12 recipients to receive an award from NSW Minister for Tourism, Adam Marshall, at a ceremony in Parliament House.



# AWARDS AND ACHIEVEMENTS

Our staff are supported and recognised by their peers, for their academic, research and community-focused outcomes.

## STAFF

### Young scientist recognised as emerging researcher

An up-and-coming postdoctoral researcher from the University was one of eight promising young Australian scientists invited to attend an annual gathering of Nobel Laureates.

Researching in conjunction with Hunter Medical Research Institute to improve the health of young men, Dr Lee Ashton joined 592 other international young scientists for the 68th Lindau Nobel Laureate Meeting in Germany.

A physical activity researcher, Dr Ashton is developing healthy-eating and weight-loss programs tailored to young men aged between 18 to 25 years, many of whom are overweight or obese and fail to meet national dietary or exercise recommendations.

### Laureate Professor Jenny Gore conferred Visiting Professor at Oxford and awarded education medal

Laureate Professor Jenny Gore became the second academic to be conferred with a visiting professorship in the Department of Education at the University of Oxford – the oldest university in the English-speaking world. Further recognition for Laureate Professor Gore came when she received the prestigious Dr Paul Brock Memorial Medal for substantial contributions to her field, becoming the third recipient and the first academic to receive the award.

### Researcher reveals new ways to catch killer cells

A pioneering young scientist from Newcastle has received national recognition for using stem cell research to investigate ways of improving the survival rates for leukemia.

Dr Heather Lee received one of two prestigious \$50,000 Metcalf Prizes from the National Stem Cell Foundation of Australia in recognition of her leadership in stem cell research.

While working at the Babraham Institute in Cambridge, UK, Dr Lee invented a way to study the genetics of individual cells more closely that will help understand why some cancer cells are treatable and others go rogue.

Conducting research in conjunction with the University of Newcastle and the Hunter Medical Research Institute (HMRI), Dr Lee is now a Cancer Institute NSW Fellow.

Her current research is studying cells from patients with acute myeloid leukemia (AML) to see how just a few cells can resist treatment and go on to cause a fatal relapse.

It is hoped that findings from this research will lead to new, more effective drug treatments for AML, which impacts approximately 900 people each year in Australia.

## < EMERGING RESEARCHER

Postdoctoral researcher, Dr Lee Ashton was invited to attend an annual gathering of Nobel Laureates.

\* Hunter Medical Research Institute is a partnership between the University of Newcastle, Hunter New England Health and the community.

# AWARDS AND ACHIEVEMENTS

## STAFF

### Harvard University Fellowship

Academic and architect Dr Cathy Smith has been honoured with a prestigious Harvard University Graduate School of Design (GSD) 2018 Richard Rogers Fellowship. Dr Smith, who is a Senior Lecturer in our School of Architecture and Built Environment, was among six winners from across the globe to embark on the program.

### Laureate Professor Graeme Jameson joins list of outstanding scientists

Chemical engineer Laureate Professor Graeme Jameson AO was made a Fellow of the Royal Society, which boasts a select fellowship of 1,600 of the world's most eminent scientists. The Director of the University's Centre for Multiphase Processes invented the Jameson Cell, a mineral processing technology that is operating in 25 countries and is estimated to have earned nearly \$40 billion for the Australian export industry.

### Professor Ajayan Vinu receives international recognition

Professor Ajayan Vinu of the University's School of Engineering, has been elected Fellow of the World Academy of Art and Science (WAAS). He joins an international network of approximately 730 fellows from more than 80 countries with membership considered to be one of the highest honours that can be accorded to a scientist. During the year, Professor Vinu was also elected to the World Academy of Ceramics Academicians.

Professor Vinu is our Global Innovation Chair for Advanced Nanomaterials and the Inaugural Director of the Global Innovative Centre for Advanced Nanomaterials at the University.

### Honour for local historian

Recognised for her outstanding contribution to the humanities in Australia, Professor Lyndall Ryan has been elected to the Australian Academy of Humanities, which is the highest honour of achievement in this field.

Specialising in Australian colonial and post-colonial history, massacre studies and Australian feminist history, Professor Ryan documented a highly-regarded digital map detailing records of nearly 250 Aboriginal massacre site locations.

### Neurogastroenterologist named NSW Scientist of the Year

Laureate Professor Nick Talley, AC, was announced as the 2018 NSW Scientist of the Year, becoming The University of Newcastle fourth academic in the past eleven years, to receive this prestigious award.

Laureate Professor Talley was also recognised this year with a Companion of the Order of Australia (AC) in the Australia Day honours and was awarded the Peter Wills Medal at the Research Australia Health and Medical Research Awards, for his pioneering research and education in the field of gastroenterology and epidemiology.

Listed among the 400 most highly cited biomedical scientists in the world, Laureate Professor Talley is invited to lecture across the globe, and has published more than 1,300 high quality papers in top ranking journals with an h-index of 167.

In 2017, Laureate Professor Talley was named Australia's most cited academic by Google Scholar and currently has more than 95,000 citations in the medical literature.

### Ground breaking achievement for soil researcher

Soil science researcher Professor Nanthi Bolan has been named on the Global Highly Cited Researchers List 2018.

Professor Bolan is one of just three soil scientists from Australia to make the prestigious list, which recognises researchers worldwide who place in the top 1% of their field by citations.

Professor of Environmental Chemistry at the University's Global Centre for Environmental Remediation, his research explores the management of soil fertility for sustainable agricultural production and environmental protection. Professor Bolan is also leading a program for the Cooperative Research Centre for High Performance Soil aimed at developing new products to increase fertility and production.

## DR CATHY SMITH >

Honoured with a prestigious Harvard University Graduate School of Design (GSD) 2018 Richard Rogers Fellowship

