

PART 2

REPORT OF OPERATIONS

“The University of Newcastle is a research-intensive university and our reputation as a place for outstanding cross-disciplinary research continues to strengthen. We build pathways between academics, business and researchers sharing knowledge, expertise and skills.”





WELCOME TO NEW

ASKUON

THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

ASKUON

INDICATOR
Panel Located
Bubble
Board.

AN ENDURING COMMITMENT TO EQUITY AND SOCIAL JUSTICE

As a regional university with a strong focus on equity and social justice, connecting with our communities sits at the heart of the University of Newcastle's engagement strategies.

The University is grateful for the unstinting generosity of its community. This year we announced a major scholarship program and a medical research endowment that will have a marked impact on our communities.

JACK MA FOUNDATION COMMITS \$26M TO HONOUR A REMARKABLE LOCAL FRIENDSHIP

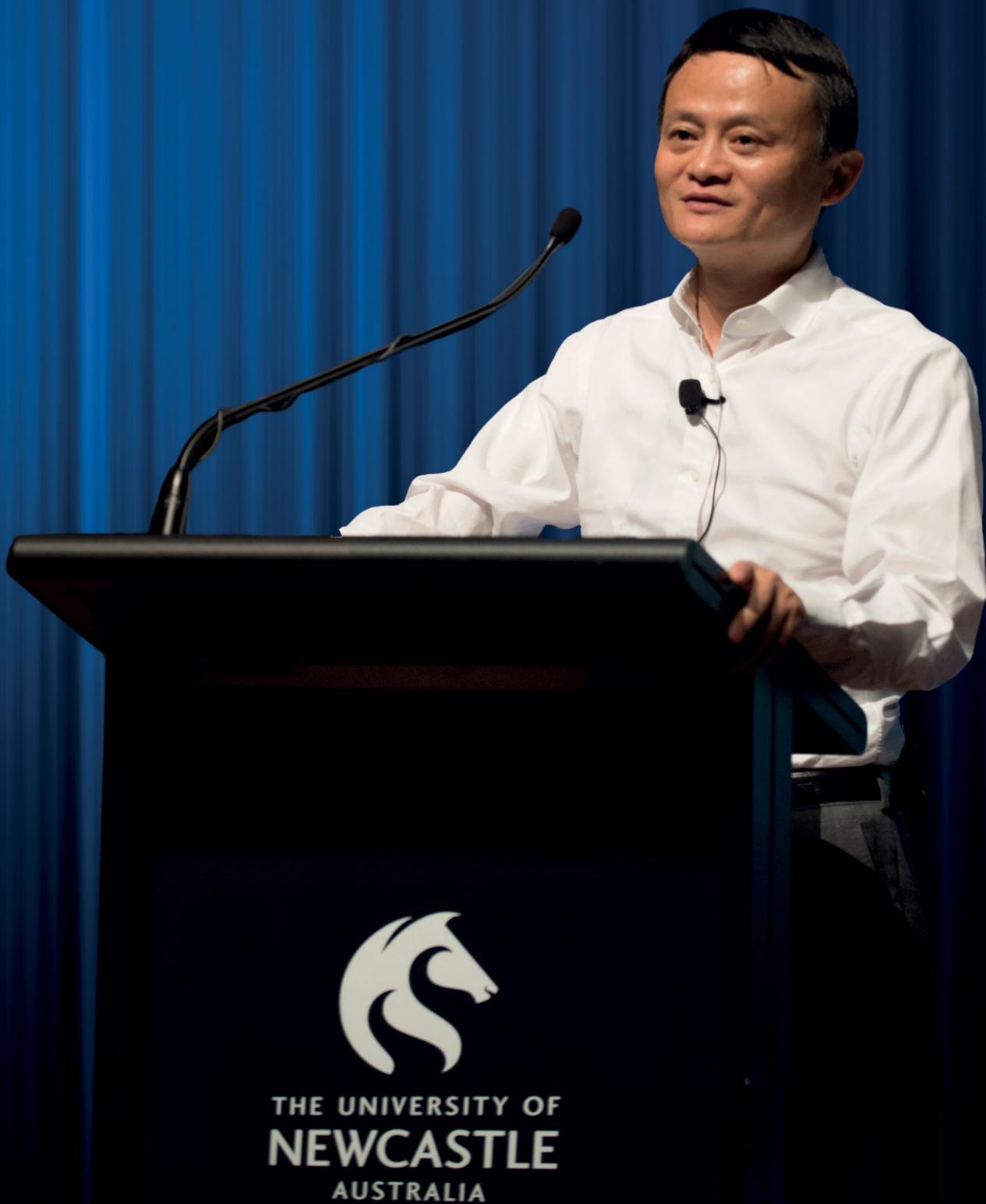
Representing the largest philanthropic commitment in the University's history, and marking the Jack Ma Foundation's first philanthropic contribution in Australia, the Jack Ma Foundation committed \$26m to fund a scholarship program as tribute to the extraordinary friendship between Mr Ma and the Newcastle-based Morley family.

The Ma & Morley Scholarship Program will support 30 new University of Newcastle scholarships in 2018. Twenty scholarships will support degree-level students and provide access to a comprehensive engagement and enrichment program. Ten scholarships will target enriching immersion experiences in China. At full capacity, the Program will support 90 students every year.

"My Foundation and the University of Newcastle share the same values... supporting equity, social justice, excellence, innovation, integrity and sustainability."

JACK MA >

Executive Chairman and founder, Alibaba Group and supporter of the University of Newcastle through the Jack Ma Foundation



142,000+

alumni based in
145 countries
across the globe¹

5,000+

new alumni
graduated
in 2017¹

550+

alumni
volunteers¹

56%

of our
alumni
are female¹

44%

of our
alumni
are male¹



SUPPORTING STUDENTS FROM LOW SOCIO-ECONOMIC STATUS (SES) BACKGROUNDS

The Australian Government has appointed a University research team to lead a national project to provide teacher professional learning to build capacity to support students from low socio-economic status (SES) backgrounds to aspire to, and successfully pursue, a higher education.

With an award of \$600,000 through the Higher Education Participation and Partnerships Program (HEPPP), the team is collaborating with researchers from La Trobe University, to develop a suite of innovative professional learning modules, to help teachers develop their knowledge and skills to support students from low SES backgrounds.

Project lead, University Laureate Professor Jenny Gore, said that while many factors shaped aspirations, schooling was critical to higher education participation success, with teaching quality acting as the most important 'in school' influence.

This HEPPP award is one of only six commissioned by the Australian Government, and recognises Laureate Professor Gore and her team's work as well as Professor Penny-Jane Burke from the Centre of Excellence for Equity in Higher Education (CEEHE) who is a co-researcher on the project. Courseware is due to be available nationally next year.

< LAUREATE PROFESSOR JENNY GORE

Faculty of Education and Arts.



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LARAPINTA TRAIL CHALLENGE SUPPORTS INDIGENOUS PROGRAMS

\$150,000 raised to support Indigenous student scholarships and research into Indigenous health issues.

Twenty-seven volunteer trekkers completed 65km of the Larapinta Trail Challenge and raised \$150,000 to support Indigenous student scholarships and research into Indigenous health issues prioritised in the Prime Minister's Closing the Gap Report 2017 and in our *NeW Futures Strategic Plan 2016-2025*.

Alumni, staff, external community members, current students and scholarship recipients took part in the challenge, which provided great exposure to Indigenous culture and the majestic landscape of the Northern Territory and highlighted our ongoing commitment to excellence in Indigenous education, equity and social justice.

GREATER PARTNERS TO SUPPORT FAMILY HEALTH

During the year, we received our first grant from the Greater Charitable Foundation to support the Healthy Youngsters, Healthy Dads Program (HYHD) run by Professor Phil Morgan and the Priority Research Centre for Physical Activity and Nutrition. The University became the Greater's largest funding partner in its annual funding round, securing \$350,000 over three years.

[i](#) See page 54 for further information

CANCER FELLOWSHIP HONOURS LOST DAUGHTER

Winemakers Brian and Fay McGuigan, together with the University of Newcastle, jointly funded an unprecedented 10-year Hunter Medical Research Institute (HMRI) Fellowship dedicated to ovarian cancer research in memory of their daughter, Vanessa, who died shortly after her 21st birthday in 1990. The funding will support bioscientist, Dr Nikola Bowden's work into the causes of chemotherapy resistance in ovarian cancer.

Dr Bowden was also appointed to the National Health and Medical Research Council (NHMRC) Women in Health Science working committee this year to represent mid-career research professionals.

INDIGENOUS HDR COMPLETIONS

The latest HDR completion statistics released by The Department of Education and Training (DET) identified us as having the highest number of Indigenous HDR completions of any university.

< LARAPINTA TREKKERS

Back row: Connor Brown, Mark Norek (guide), Deanella Mack (guide), Dr Gabor Major, Associate Professor Liz Milward.

Front Row: Michelle Van Gestel, Dr William Tan, A/Prof Peter Waring.

Other trekkers absent from photograph:

Dr Andrew Johnson, Annie Nichols, Barry Dowell, Brad Pritchard, Bronwyn Chambers, Dr David Mathers, Gail White, Glenn Turner, Helen Le Gresley, Joe Herbertson, Dr John Doyle, Judy Adnum, Kurt Dahl, Lucy Nichols, Matt Chester, Michael Robertson, Mitchell Cook, Nat McGregor, Richard Anicich, Shane Hughes, Sophie Nichols.

GRADUATES WHO MADE A DIFFERENCE

Thirty-seven thousand students from more than 115 nations called our University home this year. Our network of campuses saw creative collaborations between teachers, students, businesses and the community thrive.

Our research and innovation creates new thinking, new ideas, and new solutions to the world's greatest challenges. The University of Newcastle has nurtured a generation of leaders, pioneers and trailblazers who are tackling these challenges head-on.

SHAN TURNER-CARROLL >

University of Newcastle Bachelor of Fine Arts (Honours) graduate, Shan Turner-Carroll has exhibited his art nationally and around the globe. Crafting wildly beautiful crowns from found objects, he produces striking mystical images inspired by his upbringing and cultural heritage.





LAUNCHING OUT-OF-THIS-WORLD CAREERS

Andreas Antoniadou developed an affordable satellite for his final-year electrical engineering project. Spurred on by a shared passion, he and fellow alumnus Luke Simmons established start-up company Obelisk Systems.

When they are not developing tech-savvy space solutions, Obelisk creates hands-on technologies to bring STEMM (Science, Technology, Engineering, Mathematics, Medicine) into the classroom to encourage and inspire the next generation of engineers and business entrepreneurs.

Obelisk Systems was recognised as one of the state's most innovative start-ups and took a coveted spot at CeBIT this year - the largest technology conference in the southern hemisphere.

Tempted by an opportunity to work with Sabre Aeronautics in Sydney, Andreas has recently passed the Obelisk mantle to Luke who continues to explore new space frontiers.

“By making our technologies and research accessible to industry, we are preparing our ambitious students to become entrepreneurs of today and leaders of tomorrow.”

< ANDREAS ANTONIADES

Bachelor of Engineering (Honours) (Electrical)/
Bachelor of Business, 2016.



INDIGENOUS QUINTUPLET REALISES DOCTOR DREAM

As a member of one of Australia's only sets of Indigenous quintuplets, Dr Erika Chapman-Burgess had a special cheer squad on hand when she graduated with a Bachelor of Medicine this year.

Alongside her proud parents Ian and Adele, Erika's quintuplet siblings - Jack, Louis, India and Georgia, helped celebrate her becoming the first doctor in her family and the first Indigenous doctor from her hometown of Glen Innes.

Erika joined a cohort of 113 medical students, including five other Indigenous medical graduates, when she qualified. The University of Newcastle is a leader in Indigenous education and research and is proud that one third of Australia's Indigenous doctors have graduated from its campuses.

Through pathway programs such as the Miroma Bunbilla program, the University continues to support aspiring Aboriginal and Torres Strait Islander medics.

STUDENT AND GRADUATE TRAILBLAZERS OF THE YEAR

Ninety-five per cent of our degrees offer work-integrated learning opportunities, ensuring our graduates are highly competitive and armed with real-world experience to demonstrate to potential employers.

NASA INTERNSHIP IS DREAM COME TRUE FOR ELECTRICAL ENGINEER

Electrical Engineering student Sam Parker, who always dreamed of becoming an astronaut, has triumphed over thousands of applicants to secure a 2018 internship at NASA. Sam has been studying in Pittsburgh, USA as part of the Global Engineering Education Exchange (Global E3) - specialising in reading and decoding brain signals to help people with a disability to move their limbs again. Sam along with two other interns, is expected to work on decoding new experimental aircraft.

NEW EMPLOYMENT PROGRAM LAUNCHED AT OURIMBAH

Students from social science, IT, nursing, arts, business and environmental science disciplines took part in a pilot employability program at our Ourimbah campus. Fifteen students from 11 different disciplines received support from the University of Newcastle Central Coast and Study NSW to participate in the Global Scope program, an award-winning initiative run by Intersective for Study NSW. Students received support and mentoring to provide 'management consultancy' services to clients from local government, business and community organisations.

KARLIE IS ONE OF THE BBC'S TOP 100 INSPIRATIONAL WOMEN

BBC 100 Women included alumna Karlie Noon as one of the most influential and inspirational women in the world for her work documenting the scientific and astronomical knowledge of Indigenous and Torres Strait Islander peoples.

UNDERGRADUATE SCOOPS NATIONAL SHORT-STORY PRIZE

Bachelor of Arts student Alison Kelly competed in a field of over 700 national entries to take out the Hunter Writers Centre 2017 Newcastle Short Story Prize. Alison produced her story, 'The Blink Response,' during her first-year creative writing class. The prize is proudly sponsored by the University and boasts a prize pool of over \$6,000 - one of the largest for short-story writers in Australia.

ENTREPRENEURIAL TRAILBLAZERS

Six University of Newcastle students were in the first cohort of 40 budding entrepreneurs to complete The Navigator unit at the recently launched Sydney School of Entrepreneurship (SSE). The pilot unit saw students from across NSW take part in online and face-to-face study, to gain a deeper understanding of the Sydney start-up community and the entrepreneurial mindset.

ANIMATING JUSTIN TIMBERLAKE

Forty-seven animation students from the new School of Creative Industries produced 3,394 frames of explosive hand-drawn animation for Justin Timberlake's dance classic, 'Can't Stop the Feeling' as a homage to the original version. Shared on social media by Mr Timberlake himself, the video attracted 41,000 global views.

STUDENT START-UPS KICK-START CAREERS

Our internal Industry & Employability Awards initiative uncovered a host of talented students. Joss Kesby, Doctor of Philosophy, and James Rabbitt, Bachelor of Information Technology both received Student Entrepreneur of the Year awards.

Joss, a current PhD candidate in the School of Engineering, has developed a diffuser that almost doubles the efficiency of small wind turbines. Joss participated in the CSIRO's pre-accelerator ON Prime initiative and is currently working to develop a scalable business through its ON Accelerate program.

James Rabbitt established two businesses while studying for his degree. Bestpark is a software application that provides real-time parking availability information. Co-founded by fellow students Mitchell McLeod and Daniel Yaxley, the software is currently undergoing beta-testing at selected car parks in Newcastle. James also developed Broader Learning, which provides computer-coding learning targeted at primary-level children.



ALUMNI AWARD-WINNERS

Our alumni community reaches all corners of the globe. The University's Alumni Awards recognise and celebrate innovation, creativity and exceptional leadership at a local, national and international level.

- Social scientist and director of two research centres at the University of New South Wales, Professor Dr Carla Treloar received the Alumni Medal for Professional Excellence. Professor Treloar's work guides clinical, policy and community programs to provide Hepatitis C patients with better access to care and support to understand treatment options.
- Dr Andrew Bivard's work on the imaging and treatment of strokes was recognised through the Beryl Nashar Young Researcher award.
- Dr Joanne McCarthy received the Exceptional Community Service Award for her reporting, which the University said "transcends traditional journalism to extraordinary depths of advocacy."
- One of Australia's most outstanding actors, Susie Porter, received the Newton-John Alumni Award for her ongoing 20-year career that has included lead and supporting roles in more than 20 films, 39 television series and 11 theatre productions.



▲ ALUMNI AWARD WINNERS

Dr Malcolm Starkey, Professor Jenny May AM, Dr Bryson Bates, Professor Dr Carla Treloar, Dr Andrew Bivard, Dr Richard Denniss, Associate Professor Aunty Kerrie Doyle and Dr Xanthe Spindler.

- Young Alumni Award joint winners were Dr Xanthe Spindler, and Dr Malcolm Starkey. Dr Spindler has a strong international profile in fingerprint sciences and Dr Starkey's work is contributing to understanding early-life impairment of the immune system.
- Allied health specialist Associate Professor Aunty Kerrie Doyle won the Indigenous Leadership Award.
- Director of our Department of Rural Health, Professor Jenny May AM, won the Regional Leadership Award.
- Chief economist and former executive director of The Australia Institute, Dr Richard Denniss, received the National Leadership Award.
- Former CSIRO Chief Research Scientist, Dr Bryson Bates, won the International Leadership Award.



A PASSION FOR EXCELLENCE AND DISCOVERY

Through world-class research and strong partnerships with government and industry, the University drives innovation that challenges conventional thinking and changes lives.

“We have an established national and international network of campuses, partners and bright minds to foster a supportive research community and share expertise to help individuals, businesses and institutions.”

Our Global Impact Clusters support cross-discipline research in the fields of energy, resources, food and water; better health, healthcare and treatment; future industries; and strong cities, communities and regions.

The Newcastle Institute for Energy and Resources and the Hunter Medical Research Institute, continue to support our research excellence.

HUNTER MEDICAL RESEARCH INSTITUTE >

What began in 1988 as a bold vision to improve community wellbeing in The Hunter region has today evolved into a world-class institute with 1,500 medical researchers, students and support staff working to prevent, treat and defeat a multitude of serious illnesses.

HMRI



VISITORS

STAFF

HMRI



IMPROVING OUR ENVIRONMENT

Chemical engineer, Laureate Professor Kevin Galvin, and colleague Dr Jamie Dickinson have developed the Reflux Flotation Cell (RFC), a new technology that is set to benefit the Australian Mining Equipment, Technology and Services (METS) industry sector.

Funding of \$1m has been secured to test this new technology that will boost efficiency across the minerals processing industry by reducing the amount of resources currently being lost in extraction processes. Two full-scale RFC units will be installed at a Hunter Valley mine site following six years of fundamental research and pilot trials carried out by University of Newcastle researchers and industry partners.

Technology developed and showcased in Australia could use carbon dioxide (CO₂) emissions as a resource and transform them into building products. Mineral Carbonation International based at the Newcastle Institute for Energy and Resources (NIER) facility is developing a demonstration scale plant and moving into its commercialisation phase.

COLLABORATIVE CENTRE POWERING A CLEANER FUTURE

A new University-led collaborative centre will develop technologies to boost research into clean energy. Associate Professor Jianglong Yu at the Newcastle Institute for Energy and Resources (NIER) is bringing together world-leading national and Asian experts focused on managing pollutant emissions, carbon-based energy, advanced coking technology and alternative uses for carbon.

The Centre, which will also support early students and researchers, opened in the presence of industry and university partners from Korea's Pusan National University and Korean South Power Company.



50 YEARS

Hunter Business Awards – President's Award recognising over 50 years of world-class research from the University

< RESEARCHERS

Laureate Professor Kevin Galvin and colleague Dr Jamie Dickinson.



NUTRITION ASSESSMENT TECHNOLOGY ATTRACTS HEADLINE FUNDING

Researchers from the University of Newcastle have received grant support from the Bill & Melinda Gates Foundation to develop a new technology system to assess the food and nutrient intake of people living in low and lower-middle income (LMIC) countries.

The grant is an initiative of the Foundation's Nutrition Program which focuses on preventing deaths and the burden associated with malnutrition. Led by Dr Megan Rollo, the University of Newcastle research team will develop new tools and evaluate the Voice-Image-Sensor technologies for Individual Dietary Assessment (VISIDA) system, to overcome current measurement limitations.

New technology will include a smartphone app and wearable sensors that capture information from user's surroundings. The smartphone app removes the need to either weigh food or document information. Users will simply photograph their food and record a brief voice message. Data from wrist-worn sensors will supplement this information and indicate whether a person is eating or not.

The research team includes Associate Professor Tracy Burrows, Dr Marc Adam, Professor Clare Collins and Dr Shamus Smith. The project will run for two-and-a-half years and is valued at \$1.7m. The new system will be tested in Cambodia and Tanzania and will target women of a reproductive age and children up to the age of five.

^ RESEARCHERS

Dr Shamus Smith, Dr Marc Adam, Professor Clare Collins, Dr Megan Rollo (middle) and Associate Professor Tracy Burrows.

Our researchers have performed strongly throughout the year securing \$21.6m in National Health and Medical Research Council (NHMRC) funding and \$11.3m from the Australian Research Council (ARC).

Our performance in the NHMRC Project funding round saw us increase overall performance by 14% from 2016. Our performance in the ARC Discovery Project scheme has also improved significantly with more than double the number of successful applications in 2016.

NHMRC funding included \$3.2m to improve the wellbeing of people living with dementia and almost \$2.5m for a world-first research centre to test the effectiveness and safety of medicinal applications of a range of cannabinoids. ARC funding will support world-leading research in areas including healthy ageing; mining and mineral processing and waste-water treatment and communication strategies for The Internet of Things. A Discovery Early Career Researcher Award (DECRA) will support Dr Zamira Gibb as she continues to investigate ways of improving methods of detecting and managing infertility in both stallions and mares to support Australia's equine industry.

Our researchers made significant progress this year in many other areas:

TRANSFORMING THE LIVES OF STROKE VICTIMS

Stroke is one of Australia's biggest killers and is a leading cause of disability in Australia and globally. Professor Neil Spratt and Conjoint Professors Chris Levi, Mark Parsons, and their teams have found a new treatment that is life-saving and life-changing.

By using a well-known heart drug in an entirely new way on the brain, they are improving stroke outcomes with the clot-busting drug Tenecteplase (TNK.) Their approach is being trialled globally and is already having a positive impact.

\$6.3m TURNED UP THE HEAT ON A COLD VIRUS REMEDY

A significant advance was made with a drug compound to combat the common cold virus and associated airway infections. A \$6.3m commercialisation boost, will see the compound fast-tracked towards a clinical trial. University of Newcastle viral immunologist Dr Nathan Bartlett will be collaborating with the company responsible for commercialising the drug, along with founding scientist, Professor David Jackson (University of Melbourne.)

WHY MELTING ICE COULD BE GOOD FOR CLIMATE CHANGE

Scientists led by Associate Professor Silvia Frisia, have decoded a 24,000-year-old riddle about the importance of Antarctic volcanoes. The study was prompted by a 'calcite crust' that resembles rock to the untrained eye. Researchers discovered that iron-rich subglacial waters fertilised the Southern Ocean resulting in a large algal bloom which removed large quantities of carbon dioxide from the atmosphere. According to researchers, the ocean is acting like a huge lung - absorbing human-induced carbon emissions and generating oxygen - which is slowing the rate of climate change.

PROTEIN DISCOVERY BRINGS HOPE OF EARLY DETECTION FOR OVARIAN CANCER

A research team of cancer scientists, oncologists, gynaecologists and geneticists from the University and from Hunter New England Health working at the Hunter Medical Research Institute (HMRI) discovered that elevated levels of 'Wnt' proteins are secreted by ovarian lesions. This signalling in turn regulates a stem cell in the fallopian tube that spurs cancer formation. It is hoped that this research will allow for earlier identification, prior to lesions being identifiable via MRI, ultrasound or camera.

PLANKTON AT RISK FROM CLIMATE CHANGE

A significant study involving the University has revealed that certain species of plankton have moved substantially and depleted in number over the past six decades due to rising sea temperatures.

Dr William Chivers and his team used publicly available data to track the movement of 35 plankton species in the north Atlantic and North Sea, finding the first large-scale evidence that different plankton groups have varying responses to thermal change. The findings reveal that dinoflagellates and copepods plankton, which form the food of fish larvae, are the groups that are most adversely affected.

MAKING DRINKING WATER SAFER IN 'THE LAND OF RIVERS'

We made our mark in Asia, with the research of Professor Ravi Naidu underpinning efforts to prevent arsenic poisoning from deep-water wells in Bangladesh. Professor Naidu from the Global Centre for Environmental Remediation (GCER) was elected as a member of both the European Academy of Science and Arts, and the European Science Foundation (ESF) College of Expert Reviewers during the year.



LINKING BUSINESS AND RESEARCH

At the University of Newcastle, we work hard to commercialise our research outcomes to produce products and services that support emerging industries and jobs for the future. We are actively engaging with industry to drive real change and underpin economic growth.

EMISSIONS REDUCTION TECHNOLOGY ENTERS NEW PHASE

The University unveiled a world-first, \$10.5m demonstration facility to carry out controlled testing of an abatement technology that captures fugitive methane emissions from underground coal mining operations.

The new technology could reduce ventilation air methane (VAM) emissions by up to 90 per cent and consequently reduce Australia's annual greenhouse output by three per cent.

Led by Professor Behdad Moghtaderi from The Newcastle Institute for Energy and Resources (NIER), the testing facility

is the third phase of a flagship \$30m research project launched in 2014 that received funding support from partners including the Australian Department of Industry, Innovation and Science, and the Australian Coal Association Low Emission Technologies (ACALET).

Based at Londonderry in Western Sydney, the 100-metre-long VAM pilot-scale facility replicates the capture duct component of a VAM abatement system, allowing the research team to carry out investigations in a controlled manner and to develop a crucial set of safety guidelines. On completion, the project will help accelerate the commercial-scale deployment of VAM abatement technologies across the sector, with potential application across other processing industries also at risk of methane explosions.

^ VAM PILOT-SCALE FACILITY



GRASS ROOTS INNOVATION

A University-led Co-operative Research Centre (CRC) bid attracted \$39.5m from the Government to establish a ten-year global CRC for High Performance Soils (CRC-HPS).

The CRC-HPS includes 42 partners spanning industry, government, research, not-for-profit and business sectors who are tackling complex soil management issues and providing practical on-farm solutions.

Government investment will be supported by more than \$136m in contributions from industry and other partners (cash and in-kind) over the next ten-year period.

AN ENGINEERED RESPONSE TO CLIMATE CHANGE

PhD candidate Salman Hafeez, Associate Professor Steven Weller, and Associate Professor Christopher Kellett won the 2017 IFAC Foundation award for showing how techniques in systems and control engineering can quantify the economic damage of greenhouse gas emissions.

UNLOCKING SECRETS OF IMMUNE CELLS IN CANCER

Using cutting-edge imaging technology, Dr Craig Gedye and other members of an international team, mapped an in-depth atlas of the tumour microenvironment to understand how the immune system is involved in cancer.

24 MILLION VISITORS DRAWN TO LAUNCH OF DIGITAL MAP

Research by Professor Lyndall Ryan and her team from our Centre for the History of Violence has produced the most comprehensive map yet of massacres of Aboriginal people over the years 1788-1872.

Funded by an Australian Research Council (ARC) grant, the interactive online Colonial Frontier Massacres Map details more than 160 Aboriginal massacres providing new information that could well change the way Australia views and teaches its history. The launch of the online map attracted more than 24m national and global visitors.

The creators of the map believe that public interest was sparked by the importance of the subject matter while the data-rich, interactive and informative design of the map attracted historians, teachers and other researchers.

The data behind the map, which took more than four years to develop, was corroborated through primary sources including settler diaries, newspaper reports, court records and letters.

FUNDING BOOST FOR CANCER RESEARCH

The University and Calvary Mater Hospital researcher, Professor Stephen Ackland and his team were awarded \$450,000 from Cancer Council NSW, to improve rectal cancer treatments. Professor Ackland is conducting a trial to test whether Statins, a drug for high cholesterol, can improve tumour shrinkage and reduce the side effects of rectal cancer treatment.

HEMP SEED TO TREAT CONTAMINATED WATER

Hemp seed might provide a real solution to the Williamstown contamination crisis as its constituents are highly effective in removing per- and poly-fluoro alkyl substances (PFAS) from water. With \$600,000 funding received under the NSW Government's Research Attraction and Acceleration Program (RAAP) and additional University funding of \$220,000, a geoenvironmental team, led by Dr Brett Turner, is investigating how hemp seed can treat large volumes of contaminated water and is designing a treatment process for our local RAAF site.

RESEARCH WARNS OF WETLAND WIPE OUT

A new study published in *Nature Communications* has found that the world's coastal wetlands may have the same average life expectancy of a human being - approximately 80 years. Led by Dr Jose Rodriguez and Associate Professor Patricia Saco, the new study factors in the role of attenuation (the ability of man-made structures to restrict the flow of water) for the first time, predicting a more rapid decay of coastal wetlands as sea levels rise.

STRENGTHENING THE DEFENCE AGAINST LEUKAEMIA

A university-led team has identified a more targeted way of treating T-cell acute lymphoblastic leukaemia (T-ALL), an aggressive type of cancer typically prevalent in children and adolescents. According to senior author, Dr Mathew Dun, the research could have an immediate impact on treatment strategies and change the way new treatment ideas are developed. It is hoped that this precision treatment will reduce long-term side effects and improve overall survival rates.

SAWFISH EXPOSED AS THE ULTIMATE STEALTH FEEDER

A combined team of engineers and biologists at our School of Engineering worked with researchers at Murdoch University and Sharks and Rays Australia to help solve the ancient mystery surrounding the stealth feeding habits of the critically endangered sawfish. This new research established that sawfish detect prey with their rostrum and then use a rapid lateral swipe action to impale their kill. The hydrodynamic shape of the rostrum results in minimal impact on the surrounding water, making them incredibly efficient as predators.

ANTIOXIDANT COULD HALT REPRODUCTIVE AGEING PROCESS

In an exciting leap forward for female fertility, researchers have successfully identified an antioxidant which has demonstrated potential to halt the ageing process in female eggs.

PhD student and lead researcher, Bettina Mihalas, along with a team in the reproductive science group, made the discovery by applying a model to female eggs that is widely used in sperm research.



POWERING A MORE EFFICIENT ENERGY SECTOR

Researchers have attracted \$1.6m to develop an alternative method of generating electrical energy that is more than twice as efficient as coal-fired power stations.

The Direct Carbon Fuel Cell (DCFC) unit will extract energy from fossil fuel sources with higher efficiency to reduce environmental impact and extend reserves.

Led by Professor Scott Donne, with partner investigator Dr Jessica Allen, the DCFC has already attracted interest from China as it looks to combat air pollution problems and the country's heavy dependence on coal fuels. The research team is working to make the technology commercially viable within two years.

^ \$1.6m DIRECT CARBON FUEL CELL

Professor Scott Donne School of Environmental and Life Sciences (Chemistry) Faculty of Science, with partner investigator Dr Jessica Allen School of Engineering, Faculty of Engineering and Built Environment.

NEW INNOVATION HUB OPENS

True innovation calls for dynamic and positive change. At the University we are supporting some of the keenest minds in our community to challenge the norm and drive social, economic and cultural change for a brighter tomorrow.

Our fourth innovation hub in the Integrated Innovation Network opened at the RAAF base at Williamstown. The DSA-18 Hub is purpose-built with co-located space for researchers, post-graduate students and industry partners to work collaboratively on projects for the defence, aerospace and security sectors. State Government investment of \$1.25m in a new University-led Defence Innovation Network was announced shortly after the hub opened.

SUPER-CHARGING START-UPS

The Icon Accelerator Program, a collaboration between the University and Slingshot is super charging start-ups in the Hunter offering successful applicants up to \$25,000 seed investment, tailored training and mentoring over a 10-week period. Slingshot has already supported a number of fledgling businesses including Camplify, Deckee and Liftango. The program is part of the Integrated Innovation Network (I2N) Regional Accelerator, which received \$475,000 under the Australian Government's \$23m Incubator Support initiative.

INNOVATION HUB >

DSA-18 Hub located at the RAAF base at Williamstown.

 The Integrated Innovation Network (I2N) links four University and partner hubs across our region and places our researchers and students at the centre of entrepreneurial activity across a range of sectors. This network capitalises on synergies in programming and membership incentives as a value-add for users and partners of the hubs, fuelling a critical mass of skills to drive innovation in our region.

The I2N is an initiative of the University of Newcastle and is supported by the NSW Government's Boosting Business Innovation program. See more at www.industry.nsw.gov.au/business-and-industry-in-nsw/innovation-and-research/boosting-business-innovation-program





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ALICHAON CENTRE

UPPER HUNTER TARGETED AS INNOVATION PRECINCT

We opened new research offices in Muswellbrook to build on the existing relationship between the Global Impact Cluster for Energy, Resources, Food and Water and Muswellbrook Shire Council and our work on the Hunter Region Innovation Precinct.

This cross-discipline initiative promotes economic diversification in the areas of energy technologies, environmental remediation and community capital. Staff from our Family Action Centre (FAC) will be among the first to set up home in the new office space to continue to develop projects that have a strong focus on access to education and enhancing community strengths.

MAKING HEALTHCARE PERSONAL

A new scholarship program supported by the University and health insurer NIB is encouraging designers to develop solutions to encourage a more proactive approach to personal healthcare. With funding of up to \$10,000, five bright sparks will chalk-up practical work experience and build a network of business contacts for the future. This interdisciplinary initiative will involve creative industries, engineering, IT, health and physics.

INSPIRING FUTURE STEMM STUDENTS

Over 700 students from 30 Hunter high schools went head-to-head in a week long 'Build ME a Future Days' event with Belmont College taking the victor's spoils. The annual event is designed to inspire year 7-8 students to study STEMM-related subjects. The initiative is run by the University's Science and Engineering Challenge and RDA Hunter, with support from the faculties of science and engineering and built environment.

< MUSWELLBROOK RESEARCH OFFICE

Expanding our reach in the Upper Hunter region as we open new office space in Muswellbrook.



ENGAGING ACROSS THE GLOBE

Developing a clear and comprehensive global strategy, strengthened by deep international partnerships and alliances, supports our ambition to be a genuinely global university.

Our international work placements are broadening our students' horizons and enhancing their employability with the number of students taking advantage of these opportunities continuing to rise.

GROWING GLOBAL SCHOLARS WITH THE NEW COLOMBO PLAN

The University is supporting six of our best and brightest with New Colombo Plan Scholarships for 2018. Our students join a select group of 120 students who will study abroad for a year with funding from the Department of Foreign Affairs and Trade. The \$1.62M funding allocation represents a 190% increase on 2017 funding. Our selected students are:

- Georgia Fardell is completing a combined Bachelor of Mathematics and a Bachelor of Science degree. An initial trip to Japan as part of a Rotary International Youth Exchange in 2014 sparked Georgia's interest in the country. She is set to return to intern with key players in the solar industry while studying at Tokyo Metropolitan University.
- Jack Shearer is following in his family's footsteps with his eyes firmly set on the banking world but he has another mission - to bring people together through a shared passion for sport. Jack will continue with his Bachelor of Commerce studies at the City University of Hong Kong to develop a greater understanding of this global financial hub and to strengthen ties between Australia and Hong Kong through social sport.
- The sense of connection that Sophie Austin has with Korea is highlighted by numerous visits and her single-minded dedication to learning the Korean language alongside studying for her Bachelor in Communication. Sophie, who will attend the University of Korea, is a shining role model and champion for the disabled community.
- Zachary Groth is another high-achiever with a double major in Mathematics and Science. His combined passion for educating young people and sharing his love of mathematics will be strengthened with academic mentorship from our valued exchange partner Nanyang Technological University in Singapore.



Australian Government

Australian Government

NEW COLOMBO PLAN

NEW COLOMBO PLAN

Connect to Australia's future - study in the

Connect to Australia's future - study in the

NEW COLOMBO PLAN SCHOLARSHIP

The University of Newcastle's New Colombo Plan Scholarship recipients for 2018 Georgia Fardell, Sophie Austin, Jack Shearer and Zachary Groth, with The Honourable Julie Bishop, MP.

Not shown: Olivia Gallimore and Andrew Sunol.

GROWING GLOBAL SCHOLARS WITH THE NEW COLOMBO PLAN (CONTINUED)

- As part of his double major in Commerce and Laws, Andrew Sunol will use his time at the University of Hong Kong to build on his experience serving as Maritime Warfare Officer with the Royal Australian Navy and his clinical legal externship in Jakarta.
- Olivia Gallimore has completed her Bachelor degree course in Social Science with distinction and is currently completing her Bachelor of Laws. Olivia first spent time in China as an intern at the China Philanthropy Research Institute in Beijing in 2016. She will return to study at Tsinghua University and look for an internship with UNESCO Beijing. Olivia's previous participation in the Sydney Model and Brisbane Model United Nations Conference, her role as Secretary for the University's United Nations Society and her Diplomacy Certificate from the UNESCO Committee award should stand her in good stead.

PROTECTING ENDANGERED LANGUAGES

Three out of four 2017 Australian Linguistics Society scholarships were awarded to PhD students in the School of Humanities and Social Science. The funding will be used to research and help maintain some of the world's most endangered languages in Australia, Indonesia and the Solomon Islands.

Glenn Windschuttel will work with the community on the island of Alor in eastern Indonesia to produce a bilingual collection of stories in Kui, the Papuan language spoken there. Sabrina Meier will research the Mono-Alu language of the western Solomon Islands. Forrest Panther will undertake specialist training to benefit his PhD research on Kaytetye, an indigenous Australian language of the central Northern Territory.

BUILDING DISASTER RESILIENCE IN RURAL FIJI

A university team affiliated with the Newcastle CIFAL Centre (International Training Centre for Authorities and Leaders) worked with the Fijian Police Force to build disaster resilience capacity for rural women. Led by Dr Ifte Ahmed and with support from the Australian Government's Department of Foreign Affairs and Trade (DFAT) National Commission for UNESCO, project planning consultation and training of trainers (ToT) was initially rolled-out to 18 participants in Suva and was followed by an interactive training session for 21 community representatives from the Naboutini village in the Sabeto valley.

ENDEAVOUR MOBILITY GRANTS FUND OVERSEAS STUDY EXCHANGE

Postgraduate and undergraduate students in Architecture, Law, Music, Indigenous Studies and Business will have the opportunity to engage in grant-supported faculty-led study tours and placements in Mexico, Denmark, China, Indonesia and Brazil thanks to funding received from the Endeavour Mobility program for 2018.

The Department of Foreign Affairs and Trade funded 87 students across ten Endeavour-funded mobility projects in nine countries during 2018. The \$268,500 funding package received represents a 139% increase in funding compared to 2017 and allocates 3.2% of available funding for 2018.

SINO-FOREIGN COOPERATIVE EDUCATION PROGRAM

Sichuan International Studies University (SISU) and the University have offered a joint Chinese-Foreign Bachelor Degree Program in Business English since 2013. The program has Ministry of Education approval and aligns with China's joint higher-education reform program. It aims to provide students with general knowledge and practical training in business, and offers a pathway for students to gain international experience and a world-class degree. Graduates will receive bachelor degrees from both universities to strengthen their future educational and professional prospects.



SPEECH PATHOLOGY COLLABORATION A FIRST FOR CHINA

Our international network allows us to support global social, environmental and economic development in the places that need it most.

In a ground-breaking first for both countries, the University has partnered with China-based Orient Speech Therapy Center Limited (OST) to develop a world-class speech pathology training program. Global speech pathology curriculum expert, Dr Sally Hewat, created a cutting-edge training program to support China's first cohort of world-class speech pathologists. This partnership follows a Vietnamese collaboration between Dr Hewat, the Trinh Foundation Australia and the University of Pham Ngoc Thach (UPNT) where Dr Hewat developed a two-year postgraduate speech pathology program which was a first for Vietnam.

^ DR SALLY HEWAT

School of Humanities and Social Science,
Faculty of Education and Arts.



MORE MOOCs DELIVERED

The University delivered a number of new MOOCs (Massive Open Online Courses) and gave students the chance to participate again in its award-winning six-week course, 'Drawing Nature, Science and Culture: Natural History Illustration' which won the coveted edX 'Prize for Exceptional Contributions in Online Learning and Teaching 2017.'

Delivered by academics and artists Dr Andrew Howells and Dr Bernadette Drabsch, the course broke new ground last year when it taught illustration for the first time through a MOOC.

Other MOOCs included 'A History of Violence: From Middle Ages to Modern Times' which examined the origins and

nature of violence; 'The Science of Weight Loss' which provided participants with tools to make healthy eating decisions; while 'Sex, Science and Society' looked at reproductive science and its impact on fertility rates, society, and the long-term future of our species.

^ DR JESSIE SUTHERLAND

Early Career Fellow from the School of Biomedical Sciences and Pharmacy is a course instructor on the 'Sex, Science and Society' MOOC course.

AUSTRALIA AWARDS PHILIPPINES PARTNERSHIP

Australia Awards funding from the Department of Foreign Affairs and Trade has supported a valuable partnership with De La Salle University in the Philippines. Our three-year relationship has resulted in direct research and collaborative opportunities including academic exchanges and presentations of critical interest to Australia Awards Scholars working in the Philippines and at events such as the Annual Philippines Public Sector HR Symposium.

The strength of this partnership has been due to Professor Johanna MacNeil and a dedicated team of academic staff and to continuing alumni engagement. As part of our renewed articulation agreement, the University will welcome eleven additional De La Salle students into our Master of Human Resource Management program.

EMPOWERING INDONESIAN WOMEN

The Honourable Minister Professor Yohana Yembise, Minister for Women's Empowerment and Child Protection, Indonesia signed an MOU to increase collaboration and explore opportunities for women from Indonesia to participate in programs for study, research and training. Professor Yohana Yembise is an alumni who earned a PhD in Linguistics in 2007.

DEVELOPING GLOBAL CITIZENS

Associate Professor Ruth Reynolds believes that empowering students and teachers to become active and engaged global citizens is key to solving some of our most pressing problems.

Professor Reynold's study abroad program gives students the chance to teach in China while learning techniques from Chinese teachers to inform their own teaching style. Ruth's work also encourages schoolchildren in Port Macquarie to build friendships with their Chinese counterparts.

FORGING STRONGER RESEARCH LINKS WITH GERMANY

Two University research projects were awarded funding through the 2017 Australia-Germany Joint Research Cooperation Scheme. Professor Clare Collins and Dr Tamara Butler will collaborate with researchers from the Social Cognition Center at the University of Cologne.

The project will use eye-tracking and augmented reality technology to assess how individuals can increase health literacy when making healthy food choices.

Dr Rebecca Beirne's research project will explore enhanced metadata for improved precision and validation in analytical stylometry liaising with teams from the Department of Literary Computing (DLC) at the University of Wurzburg.

A NEW (VR) WORLD IN SIGHT

In an exciting world first, midwifery students are using virtual reality technology to learn key anatomy and birthing techniques to support neonatal resuscitation, a common but critical emergency practice. The new way of teaching has the potential to change lives across the globe, particularly in places where access to resources and education may be limited.

DIGITAL PLATFORM CONNECTS EARLY MODERN WOMEN RESEARCHERS

Our team of researchers in the area of early modern women's writing shared its digital archive software with leading Renaissance literature academics at Northwestern University, USA. The software makes it easier to view text visually and to show original texts side-by-side in formats such as wall carving or graffiti, manuscript or print.



DRIVING REGIONAL IMPACT

Building on our research, our quality teaching and local partnering opportunities, we are developing initiatives to benefit our local communities.

FAMILY HEALTH PROGRAM TARGETS DADS AND PRE-SCHOOL CHILDREN

A program targeting healthy lifestyle behaviours in families received \$350,000 in funding from the Greater Charitable Foundation to support the program's delivery across the Hunter region over the next three years. Healthy Youngsters, Healthy Dads (HYHD) is the world's first family health program targeting fathers and their preschool-aged children. Led by Professor Phil Morgan, HYHD will teach fathers evidence-based parenting strategies to improve family eating and physical activity behaviours and optimise their child's physical and mental development.

HYHD will build on the success of other father-focused healthy lifestyle programs run by Professor Morgan's team, including Dads And Daughters Exercising and Empowered (DADEE), and Healthy Dads, Healthy Kids (HDHK).

DADS AND DAUGHTERS PROGRAM RECOGNISED

The Dads And Daughters Exercising and Empowered (DADEE) program led by Professor Phil Morgan received NSW State Parliament Community Recognition and also scooped a Play Your Part Award from the National Association for Prevention of Child Abuse and Neglect (NAPCAN.) This program supports the physical and mental wellbeing of young girls by engaging their fathers in positive lifestyle role modelling. The program was established in 2014 and has been delivered to over 270 dads and 340 daughters in the Newcastle region.

CONNECTING RURAL COMMUNITIES

The Centre for Rural and Remote Mental Health (CRRMH) launched the sixth edition of the Glove Box Guide to Mental Health - a key communication resource that supports mental health and wellbeing in rural communities. The publication is a partnership between CRRMH, the Rural Adversity Mental Health Program (RAMHP) and The Land.

HEALTHY YOUNGSTERS, HEALTHY DADS >



Healthy
Youngsters
Healthy Dads

THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

Greater
NEWCASTLE

Healthy
Youngsters
Healthy Dads

THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

Greater
NEWCASTLE



CHILDREN'S UNIVERSITY NEWCASTLE

More than 1,000 students from 24 schools participated in the Children's University Newcastle program.

More than 1,000 students from 24 schools participated in the Children's University Newcastle program, encouraging children between the ages of seven and 14 to participate in educational activities outside of the school curriculum such as playing sport or an instrument, joining a dance group or drama class or visiting art galleries, museums and libraries. Over 500 students subsequently attended graduation ceremonies to celebrate completing the program.

\$100,000 GRANT FOR NEWCASTLE STEMM PROGRAM

Our Science and Engineering Challenge secured a \$100,000 grant from the NSW Chief Scientist and Engineer's office to deliver events and provide schools with access to STEMM (Science, Technology, Engineering, Mathematics and Medicine) activities. The Science and Engineering Challenge runs a number of national STEMM outreach events, the largest of which is a national competition for year 9-10 students which attracts 18,000 participants annually.

NEW OUTDOOR AREA FOR DOMESTIC VIOLENCE SURVIVORS

Jenny's Place, a local women's refuge, has a renovated outdoor play area for mothers and their children thanks to the volunteer efforts of staff. Out(fit) is a collective of female built environment professionals who provide services within the community, led by the Head of School for Architecture and Built Environment, Professor Sue Anne Ware.

SUPPORTING THE MENTAL HEALTH OF FIRST-TIME FATHERS

A world-first SMS trial has shown encouraging results supporting the mental health of first-time fathers who struggle through the responsibility of caring for a new-born. Funded by *beyondblue* with donations from the Movember Foundation, SMS4dads sent regular text messages to fathers offering uncomplicated information, advice and encouragement. An easy-to-use tool tracked each father's mood and stress levels, so that additional support could be provided to highly-stressed dads.

VR TO INCREASE RESILIENCE IN AUSTRALIAN TROOPS

A first-of-its kind project led by The University is looking at how Virtual Reality (VR) can provide resilience training to Australian troops ahead of deployment. The Minister for Defence Industry, the Hon Christopher Pyne MP, announced the \$2.2m funding for Associate Professors Rohan Walker and Eugene Nalivaiko, affiliates of the Hunter Medical Research Institute (HMRI). The project which will be funded by the Defence Science Technology Group (DSTG) and the Australian Army, is exploring how stress changes the way the brain works and how we can better equip our troops to cope under duress.

PROMOTING PHYSICAL ACTIVITY IN COMMUNITY PARKS

Researchers from the School of Education and the School of Medicine and Public Health partnered with Newcastle City Council and Lake Macquarie City Council to develop strategies to promote more aerobic and resistance-based physical activity in the community. The team was awarded over \$1m by the National Health and Medical Research Council (NHMRC) to evaluate 'eCoFit'. The project involves installing outdoor fitness equipment and trails in Council parks and then linking them to an app and education and social support.

AVO APP 'BERNIE' HELPS TO ADDRESS DOMESTIC VIOLENCE REOFFENDING

A new user-friendly app, developed by psychology and law researchers at the University of Newcastle and Australian National University (ANU) will act as an early-intervention tool to support defendants issued with Apprehended Domestic Violence Orders (ADVOs). Approximately 15 per cent of people charged with a domestic violence assault reoffend within 12 months and of those, almost half do so before the court process is final. The new mobile phone application named Bernie supports positive decision-making, reminds defendants how to comply with court orders and aims to provide greater levels of safety to partners and family members.

NEWCASTLE WRITERS FESTIVAL GOES FROM STRENGTH-TO-STRENGTH

The Faculty of Education and Arts makes a significant contribution to the popular Newcastle Writers Festival program each year and 2017 featured a stellar line up of researchers and post-graduate students with the launch of award-winning author and lecturer Dr Michael Sala's new novel, 'The Restorer' proving to be one of the main drawcards at the event.

GOOGLE FUNDING SECURED FOR FIFTH YEAR RUNNING

Dr Elena Prieto, Professor Regina Berretta and Mr Daniel Hickmott received Google's Computer Science for High Schools (CS4HS) funding for the fifth year running. CS4HS has trained more than 9,000 teachers through hands-on professional development workshops since 2011.

NEW DEGREE TO ENGINEER FUTURE HEALTHCARE SOLUTIONS

In a 'first of its kind' for NSW, a Bachelor of Medical Engineering (Honours) degree will be on offer next year. Students can major in four options - medical biomechanics, medical computing, medical devices and signal and imaging processing.

SUPPORTING INTERNATIONAL STUDENTS IN THE HUNTER

The University is partnering with the NSW Government to support international students. StudyNSW invested \$358,000 in 10 partner projects with Parliamentary Secretary for the Hunter Scot MacDonald MLC confirming we had received \$55,000 in co-funding to develop 'Upskill through WIL' - a Work Integrated Learning (WIL) project to engage international students through workplace opportunities and training. WIL and work experience placements will run from March 2018 through to August 2018.

TWO PROJECTS EXPLORE HOW THE VIRTUAL WORLD CAN SUPPORT CLASSROOM LEARNING

Dr Shamus Smith, Dr Erica Southgate and Dr Maree Gruppetta are working in partnership with the University of Southern Queensland (Dr Helen Farley) and University of Canberra (Dr Peter Radoll) to develop a free immersive virtual environment designed to support the academic literacy and study skill needs of Indigenous and non-Indigenous students, particularly those living in rural areas. The project is supported by a HEPP National Priority Pool grant.

In a second project, the University of Newcastle and Callaghan College are collaborating to design one of Australia's first virtual reality schools. The VR School Project includes teachers and sixty, Year 9 students (with a large percentage from low-income communities) who are designing and evaluating their own curriculum-linked immersive virtual learning environment. The practical, ethical and safety issues associated with integrating emerging technology in classrooms is also being researched and documented. The project has already attracted international attention and has received local funding of \$50,000 through an Australian Government Digital Literacy Grant.

DEVELOPING FUTURE WORKPLACE SKILLS

Students on our Work Integrated Learning (WIL) program are embracing digitization and other social sector skills through The GLAMx Living Histories Digitisation Lab. A range of cross-discipline learning options are available including 3D scanning and virtual reality; transforming physical formats into digital objects; using technology solutions to access archival sources and drawing on conservation, archival science, librarianship, curatorial, metadata and data management and digitization skills. The GLAMx Lab also features a separate Audio-visual Digitization Lab housing the NBN Television archive and an Artefact Conservation Atelier for the conservation and 3D digitisation of Aboriginal artefacts for virtual reality simulation.



STAFF WHO MADE THEIR MARK

We continued to promote and celebrate our culture and values and to re-align our organisational structure to support the needs of our students and curriculum.

We broke more new ground with support for sessional staff, celebrated the achievements of many of our peers and continued our work to secure Athena SWAN bronze accreditation.

SUPPORT FOR HUNTER-BASED WOMEN IN STEMM

HunterWiSE, a new STEMM outreach program was launched to encourage more high-school students to consider studying STEMM-based subjects and to support early and mid-career female academics by facilitating more industry engagement and cross-faculty collaboration. The project builds on a partnership between Muswellbrook Council and the University of Newcastle, and on existing working relationships with Glencore, Hunter Water, Greater Bank, Tech Girls are Superheroes, and Google Inc.

Female STEMM leaders in the Hunter have enthusiastically committed to both mentoring and inspiring girls to pursue diverse and dynamic STEMM career options, and to engage with female academics through the HunterWiSE network.

A pilot program at Muswellbrook High School saw students working alongside university mentors to develop solutions, including a game to educate people about the flying fox population, a website for locating community gardens, and a plan to use 'nudge theory' to prevent further pollution of Muscle Creek.

NEW TOOL TO TACKLE CHILDHOOD OBESITY

A new initiative designed to reduce the obesity epidemic among the young, has received the backing of the Australian Government. The *feedAustralia* program is currently being trialled to provide a nutritionally sound, ready-to-use menu planning tool for 54 early childhood education centres and carers in the study. The Australian government has committed \$1.08m to a national roll-out in 2018 across 25,000 providers.

HUNTERWISE PROGRAM >

University mentors and Muswellbrook High School students who completed the HunterWiSE program.

DEPARTMENT OF EDUCATION
ABLE COMMUNITIES
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MTN: 19 (E90) 840 G2
Serial Number: SC02370C3
Memory: 8GB MB
Time Spent: C1: 148.88 GB HTFS
OS Type: iOS 10.0.1
OS Version: 10.0.1
Service Pack: 1
Device Name: Build Version: 1464A806C2AP
IP Address: 192.168.1.147
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HUNTERwise
Certificate of Participation
Emily Mullane
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Certificate of Participation
Kate Howlands
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Matthew Reid
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FOSTERING FEMALE ACADEMICS

In a major boost for gender equity, an inaugural Women in Research (WIR) Fellowship program was announced to support the retention of female academics.

The WIR provided annual funding for 13 early and mid-career female academics to facilitate research and career development.

With women comprising just 27 per cent of senior academic positions in Australian universities*, Pro Vice-Chancellor (Research and Innovation), Professor Deborah Hodgson, said the WIR Fellowship is an important initiative that will foster the career development of female academics. This round will see successful scholarship awardees receiving up to \$30,000 over 12 months to support individual research with a focus on mentoring, sponsorship, professional development opportunities and career coaching.

^ WOMEN IN RESEARCH FELLOWSHIP PROGRAM

Thirteen University of Newcastle researchers have been awarded a Women in Research Fellowship.

*Universities HR Benchmarking Program 2017

ATHENA SWAN

During year two of the SAGE Pilot of Athena SWAN, the University focused on qualitative data analysis to identify challenges and opportunities for women across STEM (Science, Technology, Engineering, Mathematics and Medicine) and non-STEM disciplines. A report and four-year action plan have been prepared and will be submitted to SAGE for assessment during 2018. The University also rolled-out additional activities to support the pilot and its findings including leadership and unconscious bias training for senior leaders, silver sponsorship of the annual SAGE Symposium in Brisbane, the launch of Research Advantage - Women in Research Fellowship program and the establishment of the HunterWISE project.

HARVARD PARTNERSHIP SUPPORTS OUR EXECUTIVE LEADERS

The University worked with the Harvard Graduate School of Education to design an intensive, two-week leadership program for an initial group of eight heads of school and directors. The Harvard Institute of Leadership and Management (MLE) program provided senior leaders with the opportunity to strengthen their leadership and change management capability. The residential course also provided senior leaders with tools to energise, engage and empower themselves and others to support staff retention. Feedback from course participants was positive with the course content exceeding expectations and with the value of peer-to-peer networking rating highly.

STAFF RECOGNITION ACROSS THE UNIVERSITY

- University of Newcastle Sociology Professor and Academy of Finland Distinguished Professor Lisa Adkins was awarded one of nine National Library of Australia Fellowships for 2018. Professor Adkins is researching 'Wageless Life in the Great Depression' with a particular focus on the Wendy Lowenstein oral history collection.
- Professor Amanda Baker received the inaugural Outstanding Academic Mentor Award from the Australian Psychological Society (APS) Science and Education Team for her collaborative and generous supervision and mentorship of early career scientists.
- Lyn McBriarty, Jodi McLean and Judy Alexander had their commitment to researchers and research management recognised with individual awards from the Australasian Research Management Society (ARMS).
- Research Associate Dr Glen Burton, received the prestigious D. H. Trollope award for his research paper investigating compacted soils.
- Dr Kristen Cohen won the national AARE Ray Debus Award for Doctoral Research in Education.
- The National Council of Women of NSW recognised 15 women, including academics Victoria Hirst, Amelia Besseny and Elicia Taylor during a 'Celebrate Being an Australian' Australia Day awards ceremony.
- The National Schools' Poster Competition cooperative, the brainchild of Associate Professor Peter Howley from the School of Mathematical and Physical Sciences, won the Best Cooperative Project Award 2017 at the International Statistical Institute's (ISI's) 61st World Statistics Congress.
- Mr Shaun McCarthy, Director of The University's Legal Centre, received a citation for 'Outstanding Contributions to Student Learning' from the Australian Awards for University Teaching (AAUT) for leading the successful clinical program at Newcastle Law School providing students with client casework and hands-on advocacy and problem-solving experience.
- Three University of Newcastle researchers were awarded Fulbright Scholarships. Dr Stephanie Gilbert, Coordinator of Teaching Quality and Development at The Wollotuka Institute, received an Indigenous Postdoctoral Scholarship and Associate Professor Peter Stanwell, School of Health Sciences was awarded a Professional Scholarship. Early career researcher Dr Andrew Gardner also received the scholarship to support his continued research in the area of sports-related concussion.
- Professor Vanessa McDonald became the first nurse to be awarded the title of Fellow of the Thoracic Society of Australia and New Zealand (FThorSoc) for her excellence in respiratory health research.
- The Faculty of Engineering and Built Environment's Pro-Vice Chancellor, Professor Brett Ninness, has been unanimously elected as a Fellow of the Royal Society of NSW and was named a Fellow and Executive Engineer of Engineers Australia.
- Emeritus Professor John Patrick was elected as a Fellow of the Australian Academy of Science (AAS), joining an elite group of 500 members who have made a significant and sustained contribution to Australian science.
- Laureate Professor Roger Smith (AM) was appointed the first National Health and Medical Research Council (NHMRC) Senior Principal Research Fellow from the University. The appointment recognises his leadership in the pathophysiology of human pregnancy.
- Eighteen scientists including Associate Professor Shanyong Wang, were recognised by the Australian Academy of Science. Associate Professor Wang received the John Booker medal for his outstanding research in engineering mechanics and related fields within engineering and applied mathematics.
- Professor SueAnne Ware, Head of School for Architecture and Built Environment has been named one of ten Esteemed Fellows of Australian Architecture by Landscape Australia.
- Professor George Willis was awarded an Australian Research Council (ARC) Laureate Fellowship of \$2.8m for his work investigating 0-dimensional groups which will advance mathematical research and enhance the fields of computer science and data structures.
- Senior Lecturer from Newcastle Business School, Dr Tamara Young, received a Fellows Commendation from The Council for Australasian Tourism and Hospitality Educators (CAUTHE) for her contribution to education and research in the sector.

BUILDING FOR THE FUTURE

With state-of-the-art facilities, the University offers innovative and inspiring approaches to delivering education across Newcastle, the Central Coast, Sydney, Port Macquarie and Singapore.

Our \$95m NeW Space facility in the heart of Newcastle's CBD harnesses cutting-edge educational technology to deliver a world-class student experience.

The development of an Integrated Innovation Network, across the Hunter region will provide enabling environments where University researchers, start-ups and subject-matter experts can collaborate across disciplines to inspire the next generation of entrepreneurs.

\$95m LANDMARK >
NeW SPACE EDUCATION PRECINCT



\$95m landmark
NeW Space education precinct



NeW SPACE

In Semester 2 we proudly opened NeW Space, our \$95m landmark education precinct in the heart of Newcastle's CBD. The building harnesses the latest technology and innovation across teaching and learning and is part of the University's city campus.

NeW Space offers cross-faculty activities including:

- digital library services and information commons
- collaborative learning and research spaces
- work integrated learning
- facilities for industry, professional and community engagement
- social spaces

The building has secured a 5-star green design rating and includes energy reducing external sun shading, high performance double-glazing and thermally engineered aluminium frames. The building also maximises natural ventilation and harvests and reuses rainwater for toilets and for landscape irrigation.

NeW Space is supported by Australian Government funding of \$30m through the Education Investment Fund Regional Priorities Round, NSW Government funding of \$25m, and \$40m invested by the university.

“National Geographic Traveler ranked Newcastle as one of the world's 7 Smart Cities rising to the challenge of 21st century urban life - our NeW Space campus and inner-city digital precinct contributed to the decision.”

**< \$95m LANDMARK
NeW SPACE EDUCATION PRECINCT**



Image supplied by: Fitzpatrick and Partners Architects

ADDITIONAL \$12.5m INVESTMENT IN CENTRAL COAST MEDICAL SCHOOL

The University welcomed additional investment in the Central Coast Medical School as it prepares for its first student intake in 2020.

The Treasurer, the Hon. Scott Morrison MP, and Member for Robertson, Lucy Wicks MP, announced the additional \$12.5m investment in operational and transitional funding for the Central Coast Medical School. This funding is in addition to the previous investment commitment of \$72.5m from the Federal (\$32.5m) and NSW (\$20m) Governments and from the University of Newcastle (\$20m). The investment of \$12.5m will support operational and transitional costs as the medical and allied health school is developed in its new location on the Central Coast.

HUNTER INNOVATION PROJECT

In collaboration with Newcastle City Council, Newcastle Now and Hunter DiGiT, we are a lead partner in the Hunter Innovation Project, supported through the NSW Government's Hunter Infrastructure and Investment Fund (HIIF). Smart technology and Wifi is being deployed across Newcastle's central business district and an innovation hub is being developed to bring together researchers, students, developers, entrepreneurs, investors, technology specialists, and business advisors.

ON-CAMPUS ACCOMMODATION 'BEST IN SECTOR'

Our Student Living team won the '2017 Housing Operator of the Year' and 'Excellence in Marketing and Communications' at the Asia Pacific Association for Student Housing awards.

The 2017 University Housing Operator of the Year award acknowledged our world-class facilities and dedication to enhancing student experience through customer service, welfare and support initiatives. Special reference was made to the team's development of policy, education, and on-campus support in the area of sexual assault and violence.

The 'Life's What You Make It' campaign won the Excellence in Marketing and Communications award for its video, digital media, social media, print collateral, cinema advertising and new Student Living blog and mobile app.

RESPECT. NOW. ALWAYS.

We joined with 39 other Australian universities last year in the 'Respect. Now. Always' initiative to address sexual harassment and sexual assault in university communities. This year a Sexual Misconduct Working Group examined staff resourcing; reporting frameworks, support services and educational programs for students. The team also reviewed policies relating to sexually-based misconduct (including sexual assault and sexual harassment) and consulted with key external partners (including NSW Police and the NSW Rape Crisis Centre) to ensure processes reflect best practice. Key outcomes included the provision of additional online training resources for all staff, specialist training for frontline staff and compulsory training for students around the issue of seeking and securing consent.