



uclan
University of Central Lancashire

Review of
2018-2019

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Pictured: From the Earth to the Sun - a 3D recreation of the Sun received its world premiere at Blackpool's 2019 Lightpool festival. SUN was created by UCLan's Robert Walsh, Professor of Astrophysics, in collaboration with public artist Alex Rinsler and featured projections of astrophysical data from NASA's Solar Dynamics Observatory.



Key facts

Institutional highlights from 2018

3rd

Largest University in the North West**

123

Partnerships with international institutions

£35m

Invested in our new Engineering Innovation Centre (EIC)

6%

In the top 6% of universities in the world by the Centre for World University Rankings 2019/20

150+

Clubs and Societies run by the Students' Union

£200m

UCLan's contribution to the North West economy**

5

In the top five higher education institutions surveyed by Capita as an Employer of Choice

800+

Number of research students currently enrolled

4,999

Students studying a UCLan degree overseas

95.5%

Of our graduates are in employment or further study within six months of graduating*

38,000

Staff and student community

694

students received financial support to go overseas in 2017/18

*Full-time, home-domiciled, first degree leavers. (HESA Employment Performance Indicator 2018)

**2017 Regeneris report

Foreword from Vice-Chancellor, Professor Graham Baldwin

Welcome to the University of Central Lancashire's Review for 2018-19, which celebrates the many successes and achievements the University has enjoyed in the last academic year.

This year's publication incorporates examples of outstanding activities taking place right across the University and although I returned as Vice-Chancellor only a few months ago I can see the innovative spirit, which has always characterised UCLan, is still as strong as ever.

UCLan is very close to my heart, having worked here previously for 13 years prior to joining Solent University as Vice-Chancellor in 2014. It is certainly a privilege to be back and working alongside excellent colleagues to take the University forward. My values and beliefs closely align with the vision and mission of UCLan, particularly to ensure the highest quality of student experience with a focus on overall student achievement.

I write this foreword the week after attending the official launch of our new £35 million Engineering Innovation Centre (EIC), the largest single investment in Lancashire's educational infrastructure, a facility which is set to establish UCLan as one of the UK's leading universities for engineering innovation. In fact, just before I joined Solent, I presented part of the business case for the EIC. To come back and see it completed is very satisfying.

The provision of practice-based learning has always been a strength of this University and now, through the EIC and our links with industry, we will ensure our students gain exposure to even

greater levels of applied, real-world learning.

The EIC is not only a significant asset to the University but also the county, wider region and the UK. It will act as one of the driving forces behind the industrial strategy both on a regional and national scale while cementing Lancashire's position as a national centre of excellence for aerospace, advanced engineering and manufacturing.

Looking back 12 months, and through the contents of this year's Review, I can see it has been exceptionally busy for everyone connected with the University with great progress being made in the face of a wider environment of political uncertainty and change.

To have been named as the UK's highest riser in the Complete University Guide 2020 was a great achievement, a feat which was echoed in The Times and The Sunday Times Good University Guide 2020 where we rose 30 places to be ranked 75th out of 131 universities.

We have seen great improvements in our students' employability prospects too, where we

are above the national average. Our retention initiatives are having real impact in that people, irrespective of their backgrounds, are fulfilling their potential and meeting their life and career goals.

Whether we like it or not league tables influence the perception of a university and I want to establish this institution as being a leading, if not the leading, modern university in the UK and I genuinely think we can do this.

At UCLan we continue to show that where there is real determination, great things can happen and this year's Review showcases how individuals and the broader institution continue to make a real impact at a local, regional, national and international level.

A measure of our strong culture of innovation can be seen through the number of accolades we continue to receive at industry awards ceremonies, where in the last year we have won the approval of our peers on a record ten occasions.

Perhaps our most publicly acknowledged achievement was the University's stunning triple success at the Times Higher Education (THE) Awards – widely regarded as the Oscars of the higher education sector.

Against very stiff competition, the University won the best International Collaboration of the Year award for its work with the American University of the Caribbean School of Medicine (AUC); enabling a cohort of 643 students and staff to move, lock, stock and barrel, from one

continent to another in a little over a week. The University also won the THE's Excellence and Innovation in the Arts category in recognition of the UCLan Publishing House that provides unparalleled opportunities and experience for UCLan students on the world stage. Completing the triple success, the University scooped Most Innovative Contribution to Business-University Collaboration for UCLan's partnership with local company Recycling Lives – a fantastic example of commercial opportunity, coupled with positive environmental impact.

The Review highlights our work with Recycling Lives and our efforts to enhance the student experience through UCLan Publishing. We have also taken our partnership with AUC to the next level through the development of a joint programme that will enable school leavers from across the world to qualify for a US medical degree in under six years. The course is completely independent of our own UK medical programme, and we are recruiting an entirely new team dedicated to teaching the syllabus. It is a truly unique proposition that will be delivered in both Sint Maarten and here in Lancashire.

The last year also saw the University come together with our stakeholder communities, both at home and abroad, to celebrate our 190th anniversary. The celebrations demonstrated our continued passion for playing an important role in engaging with, and supporting, local people and communities; whether that's through our annual, three-day

Lancashire Science Festival, our 'In The City' community space in which we provide free activities from law clinics to knitting clubs, or putting smiles on the faces of staff and patients at the Royal Preston Hospital as part of our annual Acts of Kindness Day.

During our civic celebration, it was fitting and appropriate that Preston was recognised as the most improved city in the UK. While there may be continuing uncertainty surrounding Brexit, we are optimistic that, as a city and University, we will continue to thrive by pulling together. It's more important than ever that we send out the message that universities are important civic institutions that bring knowledge, innovation and graduate talent into the regional economies in which they are situated. To this end, we were the 50th university in the UK to sign up to a Civic Commitment Plan.

On the world stage, our research teams continue to push back the boundaries of knowledge, maximising our positive social, environmental and economic impact locally, nationally and globally. Whether it's helping to produce the world's first photograph of a Black Hole, advising the Government on the potential health risks to those living in the vicinity of Grenfell Tower, or supporting the wellbeing of those living with dementia, UCLan researchers are delivering accessible and impactful research that is relevant to society.

I want to establish this institution as being a leading, if not the leading, modern university in the UK.

Looking forward, the current academic year will be pivotal for UCLan, and therefore Preston and Lancashire too. Our Campus Masterplan forges ahead with work now underway on our £60 million Student Centre and new civic square, opening up a transformative gateway to our Preston Campus for the benefit of students, staff, businesses and local people.

As already highlighted, our magnificent Engineering Innovation Centre has been opened and officially launched, set to provide hundreds of locally trained graduates every year in areas including engineering, energy technologies and aerospace. Crucially, we see the EIC helping the region's businesses to link up with us to deliver the benefits of what has become known as the 'fourth industrial revolution' in areas such as virtual reality, artificial intelligence and additive manufacturing.

The University is in a prime position to capitalise on these new growth areas of employment through our ever-expanding portfolio of degree apprenticeships, boosted by our blossoming strategic alliance with Training 2000, one of the largest group training associations in the UK. Seen by the Government as crucial in boosting productivity and economic growth locally, regionally and nationally, UCLan now has the largest portfolio of degree apprenticeship programmes in the UK. Our first, degree apprenticeship students graduated in the summer of 2019 with aerospace software engineering qualifications and were some of the first in the country to reach a Level 6, the equivalent of a bachelor's degree.

Opening up a range of employment opportunities for our graduates and supporting the development and growth of workforces will continue to be of key importance to the University. We continue to empower our graduates to be the best they can be, going



Professor Graham Baldwin, Vice-Chancellor, pictured in the new £35 million Engineering Innovation Centre.

out into the wider world and making a positive difference to society with their professionalism, knowledge and leadership.

While 95.5 percent of our graduates enter employment or further study within six months of graduating, we are also a leading UK university for entrepreneurs via the number of graduate start-up companies we help to incubate. And we are immensely proud that, according to all the national league tables, the value UCLan helps to add to its students, from the moment they enrol to the moment they walk out of our doors with a degree certificate, has never been higher.

We were also pleased to be among the first 42 universities to have our registration approved by the Office for Students. In the coming months and years, we will continue to prioritise all aspects of the student experience and in the process, re-emphasise our mission to transform lives through an inspirational student learning

experience. By enriching our students' lives, we enable them to improve the lives of their families, their communities and their countries as well-informed global citizens.

The University community comprises many talented individuals from a range of diverse backgrounds. By working together, and engaging with external institutions, businesses and government, we will ensure our future sustainability. As the contents of this year's Review demonstrate, we have an exciting future ahead as well as a great story to tell. We hope you enjoy reading about our latest successes and look forward to updating you again in the near future.

A handwritten signature in black ink that reads "Graham Baldwin". The signature is fluid and cursive, written in a professional style.

Professor Graham Baldwin, Vice-Chancellor



Introduction from the Pro-Chancellor and Chair of the University Board, David Taylor CBE DL

As Pro-Chancellor and Chair of the University Board, it gives me great pleasure to introduce the University's Review for 2018-19.

Many of the features covered in this year's publication took place before the appointment of our new Vice-Chancellor Professor Graham Baldwin but I am delighted that he has now taken up his role and is already making an impact with staff, students and our external stakeholders.

Graham joins us from Solent University in Southampton and embodies all the key leadership qualities that we were searching for and his vision for UCLan resonated with the UCLan Board's ambitions for the University.

Looking back, the last year has brought changes for both ourselves and the higher education sector and competition for student numbers has never been greater. In fact, going forward, 'change' is likely to be the only constant. It is anticipated that the turbulence around Brexit will have long-term implications for our sector and takes place in an environment where political debate around fees, funding and pension pressures are fierce. As a result, we need to be focused and determined, look at our strengths and honestly face-up to the challenges and opportunities ahead. In our marketplace, it's important to evolve in order to effectively compete and stand out from the crowd. It is likely that the UK government will continue to add regulatory pressures even as public funding decreases, so we are rightly considering potential areas of growth both in the UK and overseas.

In the course of the last year it has been heartening to witness the University's historical strength of forging lasting partnerships once again bearing fruit. For instance, our close association with Lancashire Constabulary has seen the opening of the Lancashire Forensic Science Academy. Believed to be the first-of-its-kind in the world, the initiative will allow forensic

experts and students to work alongside each other in new, purpose-built police facilities to research, investigate and deliver forensic science services across the region and beyond.

In Burnley, we are working in collaboration with strategic partners Burnley Borough Council, East Lancashire Hospitals NHS Trust and alongside the Burnley Bondholders group of influential local business leaders, to meet the existing and emerging skills' needs of Burnley and East Lancashire.

Last year, the acquisition of Victoria Mill, the former University Technical College building, enabled us to reach a major milestone in our plans to generate a ten-fold increase in the number of University students studying in Burnley by 2025.

The facility will play a major role in the expansion of our course portfolio in Burnley as we invest in flexible learning spaces, supported by the latest technology, to deliver a truly customised learning experience – while importantly providing a skills supply that maximises the University's social, environmental and economic impact.

Our 'One Health' strategy to transform the landscape of health and social care across the North West is also creating an impact. UCLan is the largest provider of health and social care education in Lancashire and Cumbria and is one of only five universities in the country delivering medicine, dentistry and pharmacy, complemented

by a wide range of other health related subjects such as nursing, midwifery and paramedic practice. Currently, 35 percent of all UCLan programmes are linked to health and wellbeing, with more than 2,900 students registered on health and social care courses. Each year, these students contribute more than 1.6 million hours in clinical and social care placements.

Internationally, we have also made great strides. UCLan has a new international partner in Malaysia, Systematic Education Group International (SEGi). In June 2018, the first group of more than 300 SEGi students enrolled on a variety of UCLan-validated programmes with plans to increase those numbers to more than 1,000 over the next year.

In addition, our Cyprus Campus is poised to explore new opportunities post-Brexit across education, professional training and research spheres. The University's transnational partnership model, which offers double awarded degrees accredited by the Cyprus Quality Assurance Agency, is also an area we see as ripe for development.

In Preston, the transformative effect of a UCLan education has also been reflected in the continuing development of our campus infrastructure. We completed the first phase of our Campus Masterplan when Dr Liam Fox MP, Secretary of State for International Trade, officially opened our £8.15 million social spaces and both facilities have received great feedback from our students.

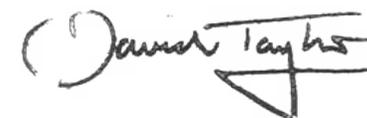
We have also seen the completion of our new multi-faith centre, 'Oasis' – a place of calm and reflection for students, staff and our neighbours of all faiths and none. Our £35 million Engineering Innovation Centre is a fantastic new addition to the Preston skyline and we have now commenced the building of our Masterplan's

heart – our new £60 million Student Centre and civic square. Once completed, the total area will be one of the largest civic spaces developed in England in the last 100 years.

Local universities like UCLan are at the heart of regeneration efforts, providing the research, innovation and skills to stimulate business growth and attract external investment. Our University is Lancashire's largest provider of graduate level qualifications, supplying large numbers of highly skilled graduates into the workforce, while one percent of all the county's residents are enrolled at UCLan at any given time.

As a civic anchor institution, we see the importance of adding social value and playing our role in the economic prosperity of the places in which we operate – whether that's in Preston or Burnley in Lancashire, Whitehaven in Cumbria, or Larnaca in Cyprus. We will continue to work in partnership with home-grown businesses and organisations, sourcing products and services locally, boosting jobs and economic growth.

I think it's clear to see that universities like UCLan have a huge impact on individuals, the economy and the whole of British society. As a country we have a habit of playing down some of our greatest assets when we should really shout from the rooftops – and indeed the corridors of Westminster. In an era where we are increasingly wary of 'fake news', the undeniable truth is that UK universities are world-leaders and the jewel in Britain's crown. Long may that continue.



David Taylor CBE, DL, Pro-Chancellor and Chair of the University Board

Across campus

A selection of recent highlights from across the University community.



Question Health hailed a success

The first UCLan debate to shine a light on mental health in the county is hailed a success. 'Question Health' saw a large audience comprised of members of the public, students and staff in the UCLan School of Medicine, discuss many aspects of mental health. The first in the series of three, which was hosted by television presenter and University Chancellor, Ranvir Singh, questioned themes around anxiety and depression, schizophrenia and bipolar, substance and alcohol abuse, dementia and service provision. It was filmed by UCLan students and later aired on a Sky TV channel.



Funding boost for UCLan's brain tumour research

Local charity BK's Heroes donates £25,000 to UCLan to fund a brain tumour and Alzheimer's disease research project. This money is used by UCLan's neuro-oncology team to examine why people with Alzheimer's disease rarely suffer from brain tumours and if it is related to a particular protein that protects them. Chris Smith, Senior Lecturer in Pharmacology, said: "It's an area that's never really been examined. This money from BK's Heroes will allow us to fund a year-long postgraduate research student to undertake a preliminary investigation, working closely with Royal Preston Hospital."



Success for UCLan at annual television awards

Four film production graduates win the Best Short Film Drama prize at the North West Royal Television Society's (RTS) annual Student Television Awards. Gaius Brown, Heather Davenport, Jodie Horn and Jake River Parker, who all graduated in 2017, receive the honour for their film *Lost in Loss*, a story on post-traumatic stress disorder. They beat off strong competition from students across the region and UCLan has now won more RTS awards than any other university in the North West.



Preston is flying high

Preston is flying high after being chosen as one of five national drone technology test centres. The city beat off stiff competition and is the North West's only representative on the Flying High Challenge, the first programme of its kind. UCLan and Preston City Council joined forces to lead the successful application. They are working with national drone experts to host a range of events for local companies and will work on a strategy to see how drones can be used in the future to respond to a wide variety of challenges.



FA supports UCLan's grassroots sports initiatives

The Football Association (FA) confirms its support for UCLan's grassroots football development by providing an additional three years of funding for its University Grassroots Hub. The FA, in partnership with British Universities and Colleges Sport, commits to providing £60,000 to fund UCLan's Grassroots Hub until July 2020. UCLan became a Grassroots Hub in 2013 when it teamed up with the Lancashire County Football Association.



UCLan academic awarded MBE

The former Rector of UCLan Cyprus, Dr Melinda Tan, is awarded an MBE for 'services to British higher education overseas and the promotion of bi-communal relations in Cyprus' and was described as a 'true ambassador of British education overseas.' Melinda has been at UCLan since 2004 and was Rector of UCLan Cyprus from November 2013 until July 2017. Melinda said: "I am extremely honoured to be awarded the MBE and would like to thank the University for having entrusted me to fly the UCLan flag in such an important strategic project."



Board of Trade Meets in Preston

The Board of Trade, chaired by International Trade Secretary Dr Liam Fox MP, meets at UCLan as it launches the National Trade Academy Programme and Board of Trade Awards. Dr Fox officially opens UCLan's new £8.15 million social spaces and one of the venues plays host to the Board of Trade 'Ideas Hack', where 45 students from across the UK take part in designing a food and drink product and its export strategy.



Prestigious award recognises University's international goodwill

UCLan is named the winner of The Guardian University Awards 2018 internationalisation category, after coming to the aid of the American University of the Caribbean School of Medicine. The institution receives the prestigious national prize for opening its door in September 2017 to nearly 650 medical students and staff who were displaced after Hurricane Irma hit the Dutch-French island of Sint Maarten.

Medical course is 'first-of-its-kind' in the UK

UCLan's new medical programme, created in partnership with North Cumbria University Hospitals NHS Trust (NCUHT), is the first-of-its-kind in the UK. The two-year Hospitalist Medicine programme follows the Royal College of Physicians' curriculum to equip clinical professionals from a non-medical background with the competencies to work at 'registrar' level in acute medicine. The course is led by Professor Gershan Davis, Professor of Cardiology at UCLan and NCUHT.



City keeping its health in check

UCLan welcomes large crowds to the Preston Campus as it hosts the annual Health Mela for the fourth year in a row. Visitors to the 70-plus health-related stalls check their blood pressure, blood sugar and cholesterol through free health checks, receive advice from a variety of healthcare professionals and experience holistic therapy such as Reiki. Younger attendees enjoy themselves by visiting the Teddy Bear Clinic, examining the inflatable walk-in mega-brain and testing out the smoothie making bike.



University confirmed as NHS Apprenticeship Training Partner in Cumbria

UCLan is named as the new academic partner with North Cumbria University Hospitals NHS Trust (NCUHT) and Cumbria Partnership NHS Foundation Trust (CPFT). The new training initiative will develop a total of 40 trainee nursing associates for NCUHT and CPFT, with the aim to bridge the gap between the role of a clinical support worker and a graduate registered nurse. The programme will last for two years, leading them to a foundation degree and a role as a nursing associate.



Preston is my honeymoon heaven

International graduate, Legend Liang, returns to Preston with his new bride, Carmen, to show her the sights of the city after he studied for a year while on the international journalism degree. The 33-year-old, in his suit and bow tie, and his wife, in her white gown, take photographs by 10 locations including the Library, Greenbank Building and St Peter's Arts' Centre. Legend, who graduated in 2008 said: "Preston is a very important place for me. I wanted to show my wife where I studied, where I lived, and how lucky I was to have the opportunity to live in a lovely small city which had an international perspective."



UCLan doctor wins national award

Criminology lecturer, Dr Laura Kelly, wins the Prison Service Journal Outstanding Article of the Year 2017. Her article, 'Suffering in Silence: The unmet needs of d/Deaf prisoners', explores the experiences of d/Deaf prisoners in England and Wales via the use of interviews with prisoners and staff members from seven prisons in England. She said: "I'm absolutely delighted to have won this prestigious award from such a widely read journal within the sector. The Prison Service Journal Editorial Board is made up of some of the most well-known and established prison researchers, and senior members of the Prison Service, so for them to choose me as the winner is fantastic."



Hidden gems

Women from Burnley's Asian community join forces with UCLan fashion experts to create a range of contemporary headscarves and hijabs, inspired by rare Asian textile samples from the world-class Gawthorpe Textiles Collection. The project team, incorporating four artists and led by Senior Lecturer in Fashion Design, Amanda Odlin-Bates, and Principal Lecturer in Fashion and Textiles, Bev Lamey, worked with an intergenerational mix of local women for a period of several months to create striking items for a specialist exhibition.



Alumnus wins Britain's Got Talent

UCLan alumnus, Lee Ridley, is named the winner of the hit ITV show Britain's Got Talent. The journalism graduate takes the top prize after impressing the voting public and celebrity judges with his comedy routine. Lee, who has cerebral palsy, performs as Lost Voice Guy. He is unable to talk so uses a Lightwriter to speak. He was diagnosed with the condition after falling into a coma when he was six-months-old. The rewards for the 2002 graduate are a coveted performance spot at the Royal Variety Show and £250,000. He said: "Winning was an amazing feeling and it's all a bit surreal at the moment. The final was an awesome night and I'm proud to have been part of it. I've come a long way since my days in Preston."



Wheels turn for new school library

A Burnley school receives help from a group of UCLan business students to turn an old double decker bus into a much-needed library. Whittlefield Primary School took ownership of the bus with the aim to raise funds to make it useable for the 225 four to 11-year-olds. The MBA students look into three different areas to help the project; sponsorship opportunities, examining funding streams, for example what grants are available, and looking at the legal requirements for using a bus as a school library.

Senior academic appointed

The University appoints Professor Ian Allison as its new Executive Dean of Engineering and Digital Technology. The experienced academic joins from the University of the West of Scotland (UWS) where he held the position of the Dean of Computing, Engineering and Physical Sciences. Prior to his role at UWS, the former software engineer and project manager was Head of the School of Computing Science and Digital Media at Robert Gordon University.



UCLan strengthens links with Blackpool FC

UCLan signs a Memorandum of Cooperation with Blackpool Football Club to strengthen links with the professional sports club. UCLan's agreement with the League One team is aimed at creating more opportunities for students and allowing them to benefit from working in a real-world, professional sports environment. Blackpool will have access to University resources to develop its own fitness testing systems and rehabilitation services to players from both the Club's first team and academy. UCLan students will benefit from working alongside the Blackpool medical and performance staff throughout the season. They will also work with players to implement injury prevention strategies and assist in the rehabilitation of players after injury.



Tackling honour-based abuse

Nazir Afzal OBE, the former Chief Prosecutor for the North West and UCLan Honorary Fellow, gives his backing to a new global network fighting honour-based abuse. The senior British lawyer was at the launch of UCLan's Honour Abuse Research Matrix (HARM), which brings people together to influence policies and develop new strategies in the fight against honour-based abuse, violence, killings and forced marriage.



UCLan announces partnership with the European Space Agency

The University partners with the European Space Agency (ESA) to explore factors relating to public value. The ESA_Lab@UCLan, managed by ESA Senior Corporate Development Coordinator, Gianluigi Baldesi, will jointly investigate how 'public value' can be understood and how it can be made a useful tool to explain the effects ESA has on member states and society as a whole. The partnership is designed to help define new technical and business approaches that can be applied to the rapidly evolving space sector. It is also used to attract and educate young and talented people, encouraging them to get involved in space activities.



Industry leaders support launch of UCLan's Business School

UCLan formally launches its Lancashire School for Business and Enterprise (LSBE). Business leaders from across the North West join a host of distinguished guests at the celebratory event, held on the Preston Campus. Professor Chris Pyke, LSBE Executive Dean, said: "We have many exciting opportunities ahead and we want to be at the heart of our region, supporting business and making a positive change. The vision is to be an innovative and entrepreneurial school working with business and changing lives by inspiring and empowering students."



Fitness first

More than 600 local school children put their sports skills to the test at the annual Primary School Indoor Athletics Finals, hosted by UCLan. Years five and six pupils from 30 Preston schools challenge each other in various track and field events at UCLan's Sir Tom Finney Sports Centre, before Broughton in Amounderness CE Primary School was crowned the winner. Staff and students from UCLan's School of Sport and Wellbeing teamed up with School Games Organiser, Harriet Ascroft, volunteers from Preston Harriers, and Ashton Community Science College Sports Leaders to deliver the athletics programme.



Prestonians praised for generosity

Generous Prestonians receive praise after hundreds of shoeboxes, containing gifts for children displaced by Hurricane Irma, arrive at the reconstructed Caribbean island of Sint Maarten. Golden Jackson, American University of the Caribbean School of Medicine Assistant Dean for Service-Learning and Community Affairs, said: "One of the enjoyable activities of the past weeks was sorting and delivering the shoeboxes sent by the generous people of Preston. Thank you is not adequate – we deeply appreciate your hospitality and openness in welcoming us."



Understanding the science of death

UCLan hosts an unusual and somewhat macabre symposium as it looks at the science of death and burial. TAPHOS-NOMOS features some of the world's leading scientists in the field of taphonomy, which looks at what happens to organisms after they die. For the first time, the event brings together specialists working at very different timescales in palaeontology, archaeology and forensic science – from the origins of vertebrates in deep geological time, through to recent mass fatalities and homicide cases.



From Preston to Benghazi

Medical students take the ingredients of an established Lancashire health initiative and replicate its success in Benghazi, Libya. Eight UCLan students were inspired by the annual Health Mela, which takes place in Preston and brings together a wealth of health-related information, free health checks for the local community and the opportunity to meet health professionals for advice in a relaxed environment. Sanad Elrishe, a third-year Bachelor of Medicine & Bachelor of Surgery student, said: "The event was a total success and we've received some fantastic feedback from those who attended. This was the first time that Benghazi has ever seen anything like this and now we have been approached to guide others so they can run similar events in other parts of the country."



Professor to lead year-long global celebration of astronomy in UK

UCLan's Robert Walsh, Professor of Solar Astrophysics, is to play a key role in celebrating the 100th anniversary of the International Astronomical Union (IAU) in 2019. He will help lead the celebration to highlight the astronomical breakthroughs that have shaped science, technology and culture throughout the last century, after being named the UK IAU National Outreach Coordinator. UCLan is helping to support several IAU100 events, including a programme of activities to celebrate the 50th anniversary of the moon landings – and an opportunity for young people to name an exo-planet.



Hidden dangers of legal highs revealed

A team of researchers led by UCLan, has found hidden dangers in numerous legal highs. Professor Colin Davidson and his team conducted some of the first research into the physiological and psychological effects of dozens of these so-called legal highs, including 'spice'. They found that many of them have worse health impacts than their more well-known counterparts, such as cannabis, cocaine and ecstasy. This research was presented as part of the British Science Festival.



British Sign Language and deaf studies education celebration

UCLan celebrates 25 years of teaching British Sign Language (BSL) and deaf studies. Since introducing a deaf studies degree in 1993 it is now estimated that more than 60 percent of British Sign Language/English interpreters working in the UK have been taught on UCLan courses. UCLan was the first university in the country to establish a BA (Hons) British Sign Language degree in 2008.



Wildlife broadcaster attracts crowds

Springwatch's Chris Packham visits the Preston Campus to offer advice and speak about his Asperger Syndrome diagnosis. The leading wildlife broadcaster shares his life story with students, staff and invited business guests. Chris discusses his lengthy television career during a question and answer session with students and staff, while he told an invited audience how people with autism are huge assets to companies. The writer, photographer, conservationist, campaigner and filmmaker, shows clips from his documentary, Asperger's and Me.



Turner Prize winner receives CBE from Prince Charles

Professor Lubaina Himid is made a Commander of The Order of the British Empire by Prince Charles at Buckingham Palace. The Preston-based artist and UCLan PhD supervisor is awarded the title for her services to art, following her Turner Prize success in 2017 and being named in the Queen's Birthday Honours list. She said: "I feel honoured to receive this award and hope to be able to use it to encourage positive action around art and artists to highlight our unique and enriching contribution to the lives of everyone."



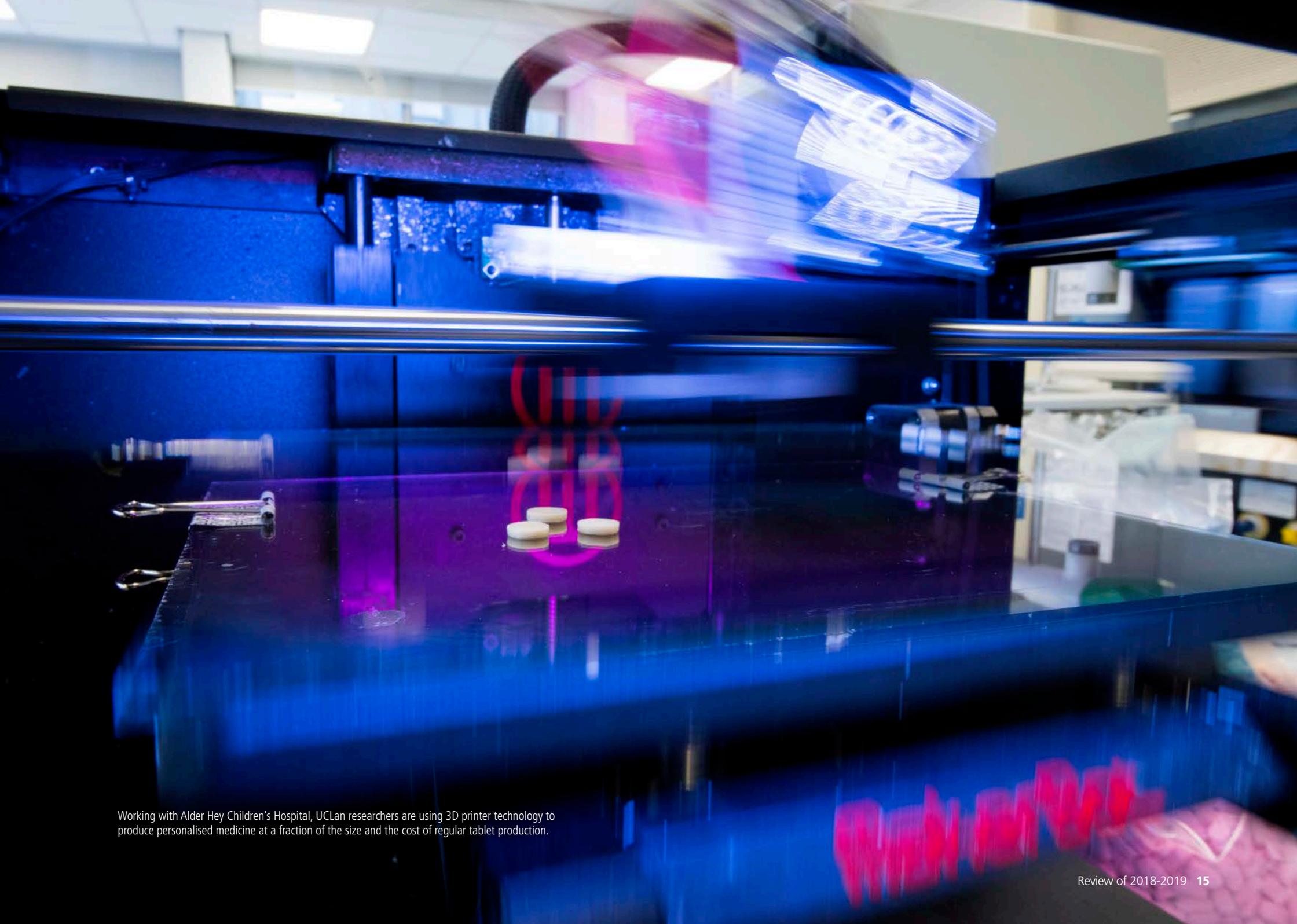
UCLan stroke experts take specialist knowledge to India

A group of stroke experts from UCLan travel to India to share their specialist knowledge with healthcare professionals. India has the third highest number of people dying from strokes, so UCLan is working in partnership with Sree Chitra Tirunal Institute for Medical Sciences and Technology to help educate others in the first multi-disciplinary stroke conference in the country. A UCLan team leads workshops on key areas of stroke care at the two-day conference, in which around 340 doctors, nurses, therapists and other health professionals from across India attend.

Research excellence with global impact and engagement

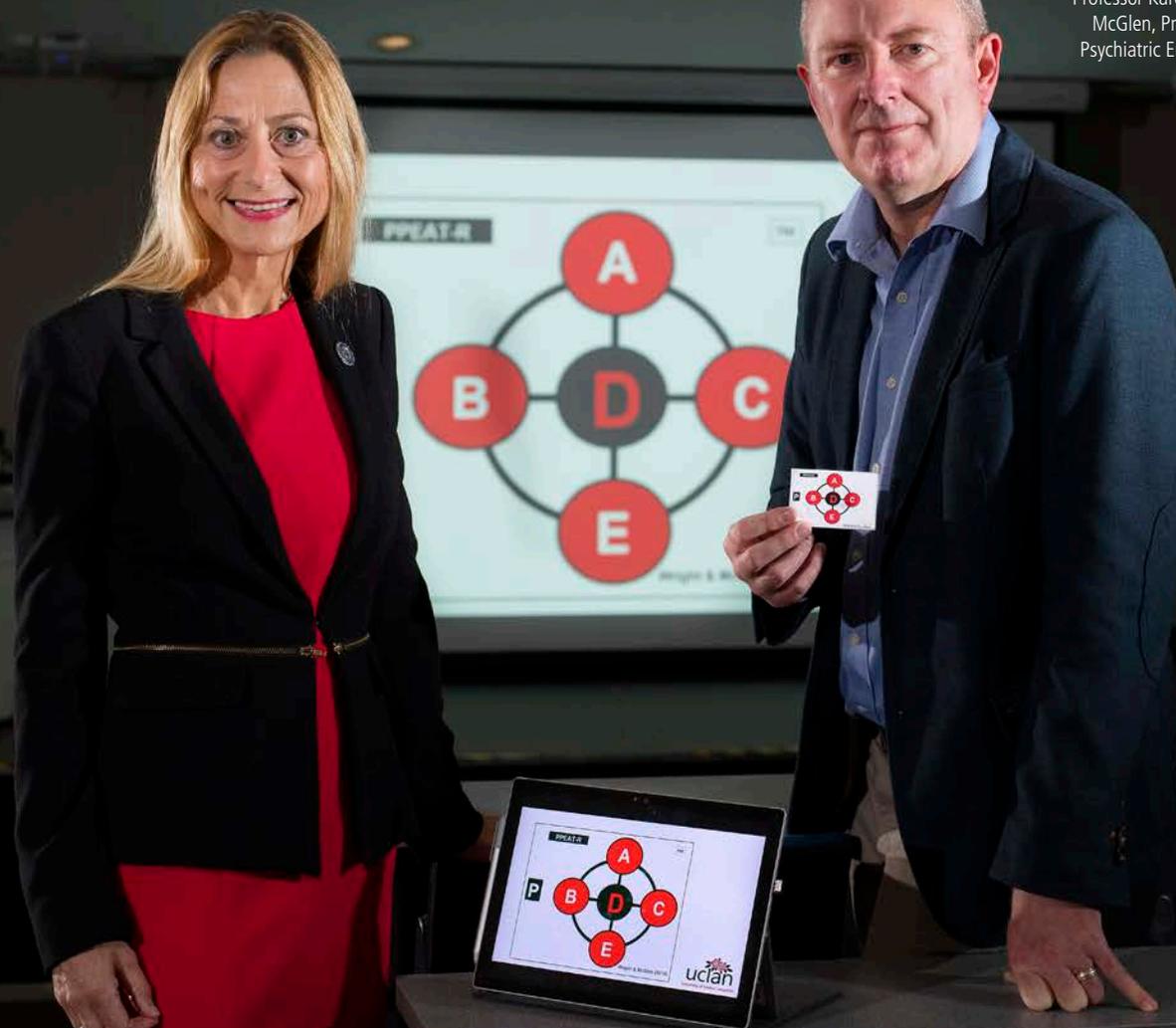
Growing a vibrant community of academic innovators, nurturing postgraduate students and early-career researchers.

University of Central Lancashire Strategy 2015-2020



Working with Alder Hey Children's Hospital, UCLan researchers are using 3D printer technology to produce personalised medicine at a fraction of the size and the cost of regular tablet production.

Professor Karen Wright, Head, School of Nursing with Dr Ivan McGlen, Principal Lecturer in Adult Nursing with the Public Psychiatric Emergency Assessment Tool – Revised (PPEAT-R).



Patented mental health assessment tool is more than just ABC

UCLan academics pioneer new framework model to support UK emergency services.

In 2018, a report by Her Majesty's Inspectorate of Constabulary, Fire and Rescue Services concluded that more than half of all mental health patients who need help in a place of safety are taken there in a police car rather than an ambulance.

Police – instead of NHS staff – take ill patients to hospital about 12,000 times a year, or in 52 percent of cases. Indeed, the Metropolitan police, the UK's largest force, deals with a mental health call once every four minutes, and sends an officer just to deal with mental health issues once every 12 minutes.

People with mental health issues often require immediate assessment and management, but effective communication between the police officer and the vulnerable person has historically been a challenge.

To address this, Dr Ivan McGlen and Professor Karen Wright from UCLan's School of Nursing, have developed the Public Psychiatric Emergency Assessment Tool – Revised (PPEAT-R).

The tool is envisaged to become the standard framework in helping not only police officers, but also paramedics, non-mental healthcare professionals and prison officers communicate their findings to specialist mental health professionals.

"The PPEAT-R was developed through extensive research with Durham Constabulary and the Metropolitan Police Service, and was the first study to explore a police officer's situation awareness when encountering a potentially mentally disordered person," explained Dr McGlen.

"As a senior nurse in accident and emergency, I saw the issues encountered by police trying to assess a person's mental health and wellbeing.

"The police would often bring people with mental and wellbeing issues into the hospital, but it wasn't uncommon to see them being released back out into the community in a very short space of time. This was because the arresting officers didn't have the skills to articulate an accurate mental health diagnosis to hospital staff.

"The police needed an easy-to-understand aid memoire which could help them, and other emergency services, to recognise the key signs of mental disorder."

The research with Durham Constabulary and the Metropolitan Police Service, which took place over a period of eight years, resulted in the following PPEAT-R checklist:

Pre-encounter: The pre-existing personal and professional characteristics, experience, and expertise, which underpin a police officer's operational response to a potentially mentally disordered person.

Appearance and atmosphere: What you see first including physical problems such as bleeding.

Behaviour: What individuals in distress are doing, and if this is in-keeping with the situation.

Communication: What individuals in distress say and how they say it.

Danger: Whether individuals in distress are in danger and whether their actions put other people in danger.

Environment: Where a potentially mentally disordered person is situated, and whether anyone else is there.

Professor Wright added: "During our trial, there was a significant shift in police officers' assumption of criminality, with the tool enabling officers to accurately respond to and recognise a person's mental health and wellbeing.

"By using this cognitive aid, police officers or other emergency services can organise and structure the information they acquire during their assessments. They can then pass this information on to paramedics, medical staff, specialist mental health professionals or other relevant personnel.

The PPEAT-R is available as a double-sided, credit card sized document, as well as an android smartphone app. Using the app, the user may access further, detailed information to support their assessment.

Frankie Westoby is Acting Detective Chief Inspector at the National Police Coordination Centre and previously worked for the Metropolitan Police, where she worked alongside the UCLan research team in the development of the PPEAT-R. Commenting on the tool, she said: "Officers have so much to remember, it's the simplicity of the tool that has made it so valuable. It is easily remembered, and it mirrors the police National Decision Making Model in that each stage is continually reviewed, picking up if anything changes 'for or about' the vulnerable individual in question."

Professor Wright concluded: "There are no known competitors to this product. Indeed, its forerunner, the PPEAT and its training package, was adopted by the College of Policing as its 'vulnerability assessment framework'. We think this latest version has great potential. Already

we have been approached by a national security services company, keen to use PPEAT-R and we expect to see it used by the full range of emergency services in the coming years."

By using this cognitive aid, police officers or other emergency services can organise and structure the information they acquire during their assessments. They can then pass this information on to paramedics, medical staff, specialist mental health professionals or other relevant personnel.

Professor Karen Wright,
Head, School of Nursing



Domestic abuse victims suffering in silence at work

Researchers call for current domestic violence laws to be updated to ensure all organisations have policies and practices in place to support victims.

Anyone can be a victim of domestic abuse. It occurs regardless of age, race, ethnicity, gender, sexuality, financial status or your position within society. The controlling, bullying, threatening or violent behaviour exhibited by an abuser is not always a physical act – domestic abuse includes emotional, sexual, financial, online or psychological abuse. Women, however, are substantially more likely to be the victim of domestic violence. In the most recent study of crime figures for England and Wales*, an estimated 2 million adults aged between 16 and 59 have experienced domestic abuse in the last year, with women accounting for 1.3 million of those victims.

There is a wide range of support out there for victims/survivors of domestic abuse but, in 2018, UCLan researchers were involved in a collaborative project that found victims/survivors of domestic abuse can be suffering in silence at work and only telling their employers if they face sanctions for absence or poor performance.

The research was conducted by Dr Carol Jones and Dr Gemma Wibberley who worked with Dr Tony Bennett, a senior lecturer in management at Sheffield Hallam University, and trade union officers from the Trades Union Congress.

They spoke to a range of trade union representatives in public and private sector organisations and discovered that in the main, domestic abuse victims/survivors only told their managers they were suffering when they faced disciplinary action stemming from abuse at home.

The researchers also found union representatives played a key role in supporting employees experiencing domestic abuse. And in workplaces where unions were recognised, there was better partnership work between union representatives and managers to support victims/survivors.

As part of the project, the team interviewed nearly 40 trade union representatives and officers about their views on, and experience of, working with line managers and human resources staff who had supported victims/survivors of domestic violence.

They found the workplace remains a haven for many victims/survivors, financially, physically and emotionally, but many managers were still unaware of the signs that their employees were suffering.

Dr Jones, from UCLan's Lancashire School of Business and Enterprise, said: "The important role that maintaining employment plays in the lives of victims of domestic violence is beginning to be recognised. Having the opportunity for financial independence can assist employees who are experiencing domestic violence to escape from an abusive relationship. It can also improve their sense of self-esteem and motivation, and go some way to countering negative messages from abusive partners.

"Workplaces need to be seen as safe environments where employees feel that they

can disclose their situation in a supportive environment if the proposed legal provision is to be effective. The training and awareness-raising necessary to ensure this happens will be challenging for employers, and where unions are recognised, they can assist in this."

The academics are now calling for current domestic violence laws to be updated to ensure all organisations have policies and practices in place to support victims of domestic violence, and that there is flexibility and goodwill incorporated into them.

Dr Wibberley said: "What we saw is that very few people experiencing domestic abuse speak to human resources or their line manager at work. In places where unions are recognised they may be more likely to speak to their union representative. In the workplace, domestic abuse is still seen very much as a private issue, rather than recognising its impact on employees and organisations."

Dr Bennett commented there was a need for greater awareness-raising and training in all organisations to break the taboo surrounding domestic abuse, which continued to make it difficult for employees to tell their bosses about their experiences.

"Poor performance, attendance and other workplace problems associated with domestic abuse, such as anxiety and stress are often misinterpreted by managers," he said. "It is crucial that all organisations ensure existing policy and practice around absence and sickness management work in concert, not conflict, with domestic violence policy and practice.

"All organisations need a coherent domestic violence policy that supports staff when experiencing abuse and clearly sets out how that is to be achieved. Given that the Domestic Violence Bill is at committee stage in the House

of Commons, it is an ideal time for that to be incorporated in law."

2018 also saw Dr Adrian Wright appointed as the new Director of UCLan's Institute for Research into Organisations, Work and Employment (iROWE). He was an active member of the group for a number of years and his research interests are focussed on precarious work, occupational communities and work in the creative sector.

*ONS Crime Survey for England and Wales, year ending March 2018.

The important role that maintaining employment plays in the lives of victims of domestic violence is beginning to be recognised. Having the opportunity for financial independence can assist employees who are experiencing domestic violence to escape from an abusive relationship.

Dr Carol Jones, Principal Lecturer in Human Resource Management and Leadership



Your medicine, printed personally for you: the future of drug delivery

A joint research trial by the University and Alder Hey Children's Hospital is using 3D printed placebo tablets to test 'ease of use' and acceptance in children between four and twelve years of age.

In our technological era, as we stand on the brink of the next industrial revolution, 3D printing is core to the evolution of how things are made. With the rise in technology developments and the new research being undertaken in this field, it is becoming essential to make the process of design, development, and production better, more reliable and efficient so that we can truly take advantage of the opportunities available.

3D printed tablets for consumption by children have the potential to enable healthcare professionals to specifically tailor medication for young people, improving patient outcomes and reducing wastage.

A joint research trial by the University and Alder Hey Children's Hospital is using 3D printed placebo tablets to test 'ease of use' and acceptance in children between four and twelve years of age.

The current system of administering medicines to children and young people poses a challenge. To obtain the required dose, healthcare professionals and parents often have to choose between splitting tablets designed mainly for adults or using liquids, which may be 'bulked up' with additional agents, which can have an unpleasant taste and be difficult to transport and store.

Splitting age-inappropriate tablets for use in children can result in inconsistent dosing, which sometimes leads to other problems such as side effects, inadequate dosing and potential treatment failure.

Rob Forbes, Professor of Clinical Pharmaceutics and UCLan project lead, said: "We were looking for a low cost and effective method to digitize and print one of the most commonly used dosage forms – tablets.

"The team has invested many hours in the laboratory to adapt pharmaceutical-grade materials to work on a benchtop 3D printer, so we can produce a personalised dose at a fraction of the size and the cost of regular tablet manufacturing facilities."

"Our research into the 3D printing of tablets shows that we can develop concept medicines which are age appropriate and with excellent dose precision for use in children.

"This can transform the way tablets are made and tailored to suit an individual patient."

"3D printed tablets could be a suitable alternative for children to take when required, but we need to know how children feel about taking such potential medicines, hence the importance of testing the concept's acceptability to children.

The technology has been used to print three different sized tablets, which are being evaluated by children – a world first. They are undertaking detailed observations of children as they swallow the placebo tablets in a specialist clinical research facility at Alder Hey and use validated methods to assess acceptability.

Co-Director at the National Institute for Health Research (NIHR) Alder Hey Clinical Research Facility for Experimental Medicine, Professor

Matthew Peak, said: "Children and young people have increasingly expressed their preference for tablets as the best formulation for them to take medicines.

"Despite this expressed need, the pharmaceutical industry knows little about which size and shape of tablets are most acceptable to children and young people of different ages.

"The majority of medicines available to children have not been designed with children in mind or indeed tested in clinical trials involving children."

UCLan's Senior Research Assistant, Rober Habashy, added: "The UCLan space at Alder Hey Hospital is really helping to facilitate our collaborative research. For instance, we're now looking at pill colour, size, shape and texture. These factors can be varied and it's great to receive instant feedback on which are the most acceptable for staff and children within the hospital.

"There is so much potential for this technology, such as printing a range of different drug layers into one pill. Really, it's a new form of engineering relating to the pharmaceutical sector with huge economic and job creation potential."

The UCLan project team has bold plans to further exploit the commercial potential of their patented 3D printing process having received significant continuing investment from UCLan's Innovation and Enterprise IP and Commercialisation team.

Professor Forbes concluded: "Our work with Alder Hey and the continued support from UCLan's commercialisation team is providing a pathway to accelerate the transfer of this science to industry via licences or a spin-out company. It's a vision which could become a reality within a year."

The team has invested many hours in the laboratory to adapt pharmaceutical-grade materials to work on a benchtop 3D printer, so we can produce a personalised dose at a fraction of the size and the cost of regular tablet manufacturing facilities.

Rob Forbes,
Professor of Clinical Pharmaceutics



Above: Tablets being produced via 3D printing. Opposite: From l-r Beatriz Carrapico-Pereira, PhD student in Pharmaceutics; Rober Habashy, Senior Research Assistant; Rob Forbes, Professor of Clinical Pharmaceutics; and Abdullah Isreb, Lecturer in Pharmaceutics.



Global research breakthrough into star formation

New discovery will revolutionise our understanding of how stars are formed.

When people think of iconic images of space captured throughout history, it is no surprise that the Pillars of Creation is near the top of the list. The vibrant, eye-catching shot, captured on 1 April 1995 by the Hubble Telescope, is legendary. The vivid shades of blue represent oxygen, the dark patches of red are sulphur, and the subtle hints of green represent both nitrogen and hydrogen. The Pillars, which are around four to five light-years away, are bathed in the ultraviolet light from a cluster of young stars located just outside the frame.



Above: NASA, ESA and the Hubble Heritage Team (STScI/AURA), EAO, K Pattle and D Ward-Thompson
 Opposite: NASA, ESA and the Hubble Heritage Team

In 2018, a team of international astronomers, led by a UCLan professor, made a unique discovery that could uncover the mysteries behind the famous celestial image and shed light on how stars are formed.

For the first time, the researchers discovered and mapped extremely subtle new magnetic fields in the Pillars of Creation. The towering tendrils of cosmic dust and cold, dense gas, which sit at the heart of the Eagle Nebula, have nurseries of stars forming at their tips. This innovative research has shown that the magnetic fields that run along the lengths of the Pillars are at a different angle to the regions surrounding them, thus revealing the reason behind their unusual structure.

This ground-breaking discovery suggests the Pillars have evolved due to the strength of the magnetic field, and that they are held up thanks to magnetic support, suggesting that stars could be formed by the collapse of gas clumps being slowed down by magnetic fields, and resulting in a pillar-like formation.

The discovery was made by a global team of researchers known as BISTRO, led by UCLan's astronomers who made measurements at the James Clerk Maxwell Telescope (JCMT) in Hawaii.

Using an instrument on the telescope known as a polarimeter, the researchers showed that the light emitted from the Pillars is polarised, indicating the direction of the magnetic field.

Professor Derek Ward-Thompson, Head of UCLan's School of Physical Sciences and Computing and Director of the Jeremiah Horrocks Institute for Mathematics, Physics and Astronomy, led the global team effort.

He said: "This discovery will revolutionise our understanding of how stars are formed. The technology employed to view the minutiae of the magnetic fields is truly remarkable, and the fact that we have been able to observe the incredibly weak magnetic field with this sensitive instrument will help us to solve the mystery of the formation of stars.

"The idea that we could measure such weak magnetic signals at great distances would at one time have been regarded as science-fiction. However, such is the nature of recent technological breakthroughs that we now regard these measurements as almost routine. It is excellent that UCLan is at the cutting-edge of these technological breakthroughs."

The JCMT, located on Mauna Kea in Hawaii, is operated by the East Asian Observatory. The BISTRO Survey is a large team of scientists working to understand the role of magnetic fields in the formation of stars, with members from across the partner regions of the JCMT: China, Japan, South Korea, Taiwan and Vietnam and from participating universities in the United Kingdom and Canada, including UCLan.

The study was published in the *Astrophysical Journal Letters*.

"This discovery will revolutionise our understanding of how stars are formed. The technology employed to view the minutiae of the magnetic fields is truly remarkable, and the fact that we have been able to observe the incredibly weak magnetic field with this sensitive instrument will help us to solve the mystery of the formation of stars."

Professor Derek Ward-Thompson, Head of UCLan's School of Physical Sciences and Computing and Director of the Jeremiah Horrocks Institute for Mathematics, Physics and Astronomy.



The safest way to give birth?

Global study calls for antenatal overhaul after findings show caesarean section use has almost doubled since 2000.

We are all born, but the way we enter the world is increasingly a hot topic. Caesarean section is a delivery method that can save a mother and child's life in certain situations and yet, isn't without risks. Women who undergo C-section surgery are at a higher risk of infection, take longer to recover and in some extreme cases, can die as a result. Despite this, new research shows that more and more women around the world are having caesarean births but not all of these are deemed to be medically necessary.

In 2018, UCLan researchers contributed to a global study using data from 169 countries that revealed the number of babies born by C-section almost doubled between 2000 and 2015. Published in The Lancet Medical Journal over a series of three papers, it revealed that the number of babies born by C-section rose from 12 to 21 percent during this 15-year period.

Interestingly, the research highlighted disparity between low income countries, where the potentially life-saving intervention isn't always available, and wealthier countries where women are choosing to have C-sections when they don't medically need one.



The series authors estimate that more than one in four countries in 2015 did not use C-section enough, while 63 percent of countries used C-section above the recommended level. In at least 15 countries C-section rates exceed 40 percent. In the Caribbean region and Latin America, data shows that C-section births were up to 10 times more frequent than in West and Central Africa regions where just four percent of births were by caesarean.

Dr Carol Kingdon and Professor Soo Downe from the School of Community Health and Midwifery contributed to the third paper in the Lancet Series on C-section births, which examines interventions to reduce unnecessary caesarean sections in healthy women and babies.

Professor Downe said: "Optimising C-section use is of global concern. Underuse leads to higher stillbirth rates and should remain a global health priority, but the findings in this Lancet Series show that overuse can be harmful to both mother and baby and uses resources that should be targeted on women and babies who need lifesaving surgery and treatment. Therefore, to reach optimum level of C-section use around the world, both ends of the spectrum need to be addressed."

Dr Kingdon commented: "Our research shows the drivers of C-section overuse are complex, dynamic and partly context-specific. Women's communities and population factors all interact with professional norms, beliefs and values, within complex health systems. This helps to explain why so few interventions have been effective in reducing the frequency of unnecessary caesareans."

The study calls for healthcare professionals, women and their families to take a new approach to C-section births and only choose one when required. To do this, the researchers are calling for additional education and training to address some of the concerns surrounding childbirth.

In their paper, the UCLan and World Health Organisation researchers recommend further research to study relaxation training, childbirth training workshops, educational lectures and brochures, and meeting with health professionals to promote supportive relationships, collaboration and respect. As well as improved education, guidelines and communication, second-opinion policies for healthcare professionals may also be helpful to address influences on physicians, such as women's requests, convenience, financial incentives, and fear of litigation.

Professor Downe added: "Our research shows that around the world, there is general support from clinical staff for the idea that increasing support for women to have a physiological (natural) birth, and providing focused antenatal education to help women to do this, as well as providing labour companionship and midwifery led care, are all likely to improve quality of care and outcomes and reduce unnecessary interventions."

“Our research shows the drivers of C-section overuse are complex, dynamic and partly context-specific. Women’s communities and population factors all interact with professional norms, beliefs and values, within complex health systems. This helps to explain why so few interventions have been effective in reducing the frequency of unnecessary caesareans.”

Professor Soo Downe,
Professor in Midwifery Studies

Engaging minds, opening access and fulfilling student potential

Producing high-calibre graduates, with the right blend of skills and attitudes to succeed in their future careers.

University of Central Lancashire Strategy 2015-2020

Learning by doing: UCLan Pro Vice-Chancellor (Digital and Creative Industries) Dr Andrew Ireland providing expert advice.





Monster success for student publishers

It has been another incredible year for UCLan Publishing, the only student-led publishing house in the world.

Staff and students at UCLan Publishing recently returned from a whirlwind nationwide book tour in support of *Monsters in the Mirror*, an exhilarating children's fantasy adventure that hit bookstores in March 2019. It included an appearance at Bologna children's book fair, the largest event of its kind in the world. They were joined by its author, the New York Times bestselling writer Andrew 'A.J.' Hartley, who was born and raised in Preston. Hartley currently resides in the USA, where he is a renowned Shakespearean expert at the University of North Carolina.

It's another remarkable coup for UCLan Publishing, the only student-led publishing house in the world (which also has the distinction of being the only active publisher of children's books in the North West). Students on the University's pioneering BA and MA Publishing courses are responsible for commissioning, editing, publishing and promoting UCLan Publishing's entire output, bringing them into contact with industry-leading authors, illustrators and media figures. Previous collaborators have included former Children's Laureate, Jacqueline Wilson, Emmy Award winning actor (and former Doctor Who), Christopher Eccleston, and Britain's first astronaut, Helen Sharman, who contributed the introduction to *Blast Off to the Moon!*, which was released in June 2019.

In recent years, UCLan Publishing students have journeyed overseas to work on collaborative projects alongside the Inuit community in Greenland, the Sami people of the Arctic, and others. Their work has taken them as far afield as the Azores, Fiji and Norway. The first ever title produced by UCLan Publishing, *Letters to Africa* (2010), reproduced handwritten correspondence between Lancashire schoolchildren and their counterparts living in Kenya's Maasai community, revealing fascinating insights into

their everyday lives and aspirations. Other titles have seen students working with global organisations including the Tour de France and the International Olympic Committee. Multidisciplinary projects such as these involve students teaming up with linguists, photographers, creative writers and filmmakers.

"We have something really special here at UCLan," explains Debbie Williams, founder and Head of UCLan Publishing. "Our students get to collaborate with bestselling authors and gain hands-on experience of commercial publishing, emerging with skills which are highly prized across the industry. As a result, we've seen many of our graduates go on to land senior roles with global publishing houses."

Every book released by UCLan Publishing has to run the gauntlet of a tough student-led approvals process before it gets commissioned. "It's extremely competitive," explains Debbie. "We require authors to submit a detailed book proposal to us before we take on any projects, and we only publish their work if it gets green-lit at our monthly student acquisition meetings. From there, our MA Publishing students have the opportunity to adopt the title as a final year project. They can decide to recruit the talents

of fellow students, or work with professional editors, designers, copywriters and illustrators to bring it to fruition."

The release of *Monsters in the Mirror* follows the incredible success of last year's *Cold Bath Street*, A.J. Hartley's spine chiller for young adults. Its production was the outcome of a student dissertation project. Set on the streets surrounding the University's Preston campus, the story follows the misfortunes of schoolboy, Preston Oldcorn, who makes the shocking discovery that he is dead and has slipped into a twilight realm between the living and the hereafter. The title became a nationwide bestseller and made the longlist for the Carnegie Medal, while the recently released audio version was narrated by Christopher Eccleston. Students are also in talks with Netflix regarding a possible film adaptation.

In March 2019, UCLan Publishing hosted the inaugural Northern Young Adult Literary Festival, the first event of its kind in Preston, and launched the STEAM Children's Book Prize, which seeks to inspire a passion for science and technology in young people. There are several other exciting projects in the pipeline. TV wildlife expert, Chris Packham, is set to work with students on a series of picture books starring his beloved pet poodles. And readers who enjoyed *Monsters in the Mirror* will be pleased to learn that it's the first of a planned trilogy. This Halloween will see the release of *Written Stone Lane*, the eagerly anticipated sequel to *Cold Bath Street*. The lane of the title (found in Longridge, Preston) has earned its place in local folklore as the site of an ancient stone slab that bears a mysterious centuries-old inscription.

The incredible work taking place at UCLan Publishing has attracted national recognition in recent months. In November 2018, the team brought home the 'Excellence and Innovation

in the Arts' prize at the Times Higher Education (THE) Awards. Further acclaim has followed. The team were runners-up in the Employability and Entrepreneurship category at the Guardian University Awards in April 2019 and were shortlisted for the Innovation Award at the Educate North Awards that same month. Their achievements have also been making big waves in the publishing industry. In May 2019, the team landed the Nick Robinson Newcomer Award at the prestigious Independent Publishing Awards. It's a fitting testament to how much the team has achieved in such a short space of time.

Debbie says: "Cold Bath Street was a phenomenal success for us and there's so much more to come. We proved that it's possible for UCLan students to publish a bestseller and we will continue to push the boundaries. We are a small independent company competing against huge, well established publishing houses and we're achieving some incredible things."

Our students get to collaborate with bestselling authors and gain hands-on experience of commercial publishing.

Debbie Williams,
Founder and Head of UCLan Publishing

Opposite: Debbie Williams, Associate Professor in Publishing (front left), with publishing students and staff in the University's on-campus Publishing House.



Back in time for Doctor Who

UCLan students re-create missing 1965 Dr Who episode 'Mission to the Unknown'.

Doctor Who has been on our screens since 1963 and is watched by an estimated 110 million people around the world, across 65 countries. It has a devoted fan base who know their Daleks from their Zygons, and have seen every episode ever made. But have they? What about the 97 lost episodes that some fans have never seen? Thankfully, one may see the light of day again after it was authentically re-created by UCLan students, graduates and staff.

In a project known as Sci-fi in a Week, a large university cross-disciplinary team remade the lost 1965 episode 'Mission to the Unknown' in just five days of rehearsals and filming. Unlike some lost episodes that have been returned to the BBC, this one is likely to stay lost forever as it was never sold or distributed overseas. But, thanks to UCLan's efforts, it has now been brought to life again in full 1960s glory.

This episode is unusual in that it was the only single episode story in the entire 26-year original series run and also because it is the only story not to feature the regular cast, including the Doctor himself, who was played at the time by William Hartnell.

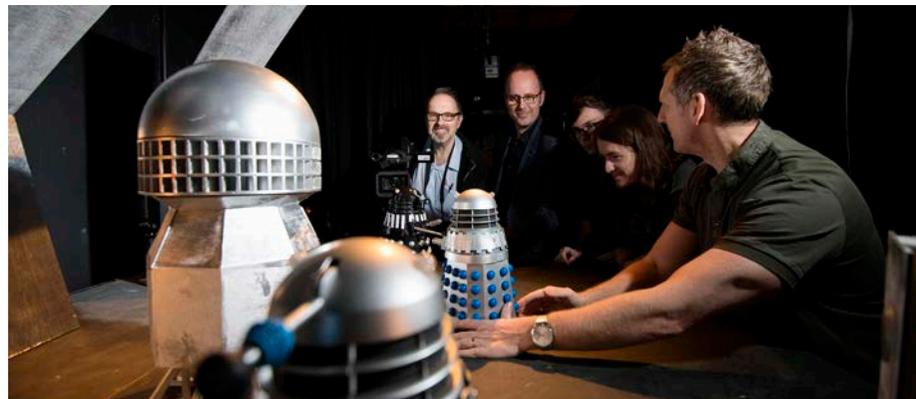
The 25-minute episode, which was originally written as an introduction to the 12-part story 'The Daleks' Master Plan', featured Edward de Souza as Space Security Agent Marc Cory and his efforts to warn Earth of the Daleks' latest plot. Audio recordings from the episode exist and informed the development of the UCLan version, but no original footage is known to have survived.

UCLan Pro Vice-Chancellor (Digital and Creative Industries) Dr Andrew Ireland directed and produced the episode after being given special permission from the BBC and the Terry Nation Estate, which holds the Rights to the Daleks. Nicholas Briggs, who has been the voice of the

Daleks since Doctor Who returned in 2005, lent his support to the project by voicing the Daleks for the special UCLan episode.

Dr Ireland said: "I'm a huge Doctor Who fan and this episode in particular has always held an air of mystique for me because it experimented with the notion of the Daleks carrying their own storyline without the Doctor present."

"We kept it as close to the original as we possibly could, so everything from the props and costumes to the acting style, pace and camera techniques are designed to be very 1960s. It was filmed to simulate the low-resolution, black and



Lights, camera, action: the lost episode of Dr Who takes shape.

white look of the era and we've been able to use the audio from the original recording to inform stage directions and the mood of the episode."

The whole show was created by UCLan students, graduates and staff, with help from Accrington and Rossendale College pupils who were in charge of make-up and prosthetics. It means that students on courses including acting, fashion and TV and media production gain hands-on experience of creating a drama from scratch and are able to compare techniques from more than 50 years ago with modern-day drama production.

Dr Ireland said: "It's a cracking script and remaking it proved to be an exciting challenge and learning experience for all concerned. We often talk about the theory of historical television production techniques, but this project meant the students lived the high-pressured reality of it!"

To make the programme, the UCLan team had to make four sets; a futuristic conference room, a jungle, a rocket ship, and the Dalek Control Room, which was filmed as a miniature set, as well as creating all the props and costumes. It involved four speaking parts plus three Daleks with seven other actors playing aliens.

The cast and crew were given a treat mid-filming when Peter Purves, who played the Doctor's companion in 1965, and original cast-member, Edward de Souza, visited the set to see how things were progressing and take part in a special question-and-answer panel.

Peter said: "This is an absolutely wonderful project, even more so as this episode was a one-off introduction to the massive 12-part 'Daleks' Master Plan'. I can remember at the time that we (that is me and Bill Hartnell) were a bit miffed not to be included in any way at all, but actually it was a nice week off in the end. I am intrigued to see what has been done and hope it could be a precursor to more reconstructions in the future."

Dr Ireland added: "We have given the BBC a copy of the episode and hopefully one day it may become available for people to see. Who knows?"

We kept it as close to the original as we possibly could, so everything from the props and costumes to the acting style, pace and camera techniques are designed to be very 1960s.

Dr Andrew Ireland, Pro Vice-Chancellor (Digital and Creative Industries)



Changing the higher education landscape through degree apprenticeships

University unveils strategy to address skills gaps and drive regional and national economic growth.

2018 saw apprenticeship numbers in England increase for the first time since the government introduced a levy on the largest employers to fund workplace training. In preparation for an anticipated surge in demand, the University is in the process of implementing an apprenticeships growth strategy which is already delivering results.

Currently the University has 600 apprentices with over 300 more to be enrolled in the near future. Contracts have been signed with a range of high profile employers including both Cumbria and Lancashire Police Constabularies while the University's ambition is for 20 percent of its future learners to arrive via the apprenticeship route by 2021.

UCLan's commitment to apprenticeships forms part of its employability strategy to bridge the productivity gap, increasingly being seen as the Achilles heel of the UK economy. The acquisition of Training 2000, one of the largest private training providers in the UK, is a further boost to the University's apprenticeship credentials.

Training 2000 has worked alongside UCLan to develop a business growth plan which acknowledges the value of degree apprenticeships and opens up a key educational pathway between the University's new £35 million Engineering Innovation Centre and Training 2000's Advanced Manufacturing and Automation Centre.

The provision of degree apprenticeships within a health setting is another area where UCLan is changing the landscape of degree education. The University currently has over 260 students enrolled on the healthcare assistant practitioners and nursing associates courses - both are level five apprenticeship programmes. The healthcare assistant practitioners course incorporates the

award of a foundation degree in health and social care while the nursing associates course incorporates the award of a science nursing associate foundation degree.

After a recent Ofsted inspection, the first for the University, UCLan's apprenticeship provision was rated "good".

The University was praised for "enabling students from all backgrounds to access higher education" and for "providing clear routes into professional careers in a range of health and care settings". Other highlights included "a wide range of good-quality teaching and learning approaches", "excellent resources support" and "highly effective employer engagement".



The report said: "The University's strategy supports the Lancashire skills and employment strategic framework to increase the number of higher and degree apprentices in key priority areas with skills shortages. The apprenticeship programmes that have been developed provide clear career pathways to support apprentices into professional roles and to gain qualifications that are supported by their employers".

Dr Lynne Livesey, Deputy Vice-Chancellor (Academic) at UCLan, said: "We are dedicated to offering our apprenticeship students the very best in teaching and learning so this 'good' Ofsted rating is a great marker for us.

"A large majority of our apprentices are mature students who have been out of education for a number of years. Through these vital health apprenticeships, we are enabling people who might not have thought about higher education to access it and in turn they are gaining official qualifications and adding much needed resources into the local health economy.

"Looking at the wider picture, the University aims to be the North West's number one provider of degree apprenticeships through the provision of bespoke courses which are models of best practice. Flexible delivery by staff with extensive industry experience and up-to-date professional qualifications, will ensure learners benefit from their workplace learning and progress into highly skilled roles.

"The University's network of 25 formal educational partners also means we can deliver, or provide access to, apprenticeships at all levels and sectors across the North West region and the UK. As an institution we are certainly in a good place to deliver on our strategic ambitions, to address skills gaps in priority sectors and, through apprenticeship provision at all levels, help drive regional and national economic growth."

The University's strategy supports the Lancashire skills and employment strategic framework to increase the number of higher and degree apprentices in key priority areas with skills shortages. The apprenticeship programmes that have been developed provide clear career pathways to support apprentices into professional roles and to gain qualifications that are supported by their employers.

Ofsted inspection report

Opposite: Students pictured using the Advanced Manufacturing & Automation Centre at Training 2000, a cutting-edge facility at the forefront of both the manufacturing and engineering industries.



UCLan alumna Hayley Dickinson pictured at BAE Systems with the Eurofighter Typhoon.

Hayley's career takes flight with aerospace giants

Changing lives through transformational education.

Inspiring people from all walks of life to unleash their potential and achieve things they never thought possible remains central to our University's mission. Thousands of graduates would attest that their time as a student at UCLan was transformational, changing the trajectories of their lives and opening doors to the careers they had always dreamed of.

The UCLan experience (and higher education as a whole) also has the potential to challenge the status quo; it can empower people to break through barriers that exist in society. These barriers can effectively block their progress, dampen their ambitions and thwart their attempts to succeed in life. They often take the form of prevailing attitudes and outmoded stereotypes that have long dictated how certain groups in society 'ought to behave' and what kinds of careers they are (not) entitled to aspire to. Some of these attitudes have served to wrongfully exclude people from particular careers on the basis of their gender, economic status, ethnic background or other arbitrary characteristics. Until very recently, for instance, influential positions in science and engineering were almost exclusively the preserve of men (mostly from privileged backgrounds), with women and those from poorer economic backgrounds implicitly discouraged from pursuing enriching careers in these areas.

For many years, UCLan has been working alongside schools, colleges, industry experts and professional bodies with a view to inspiring the next generation of young people to become the innovators and gamechangers of tomorrow. The aim has been to encourage youngsters to consider pursuing careers in science, technology, engineering and maths (collectively known

as STEM) – areas where the UK is facing a severe skills shortage. Ongoing UCLan-led initiatives, such as the Lancashire Science Festival and the Young Scientist Centre (delivered in partnership with the Royal Institution), engage with thousands of children across the North West, many from underprivileged areas, to demonstrate that an immensely rewarding future career is within their grasp. In particular, UCLan has been striving to increase the proportion of females in these fields.

The aerospace industry is just one example of an environment whose workforce was once almost exclusively male, but thankfully the tide is turning and we are finally beginning to see high calibre female talent entering and thriving in the sector.

Hayley Dickinson can hardly believe how rapidly her career has progressed since the day she graduated from UCLan with a First Class degree in BA (Hons) Business Studies with Marketing in 2017. While in her final year of study, Hayley overcame a tough and highly competitive recruitment process to secure a place on the coveted graduate scheme with BAE Systems, one of the world's largest defence and aerospace companies. The multinational company has been heavily involved in the production of major defence projects such as the Eurofighter Typhoon, billed as the most advanced combat aircraft in the world.

Despite her current success, Hayley initially had real doubts about her ability to succeed in higher education: "Before going to university, I barely expected to achieve a pass, let alone a First," she remembers, "but I put my mind to it, challenged perceptions and achieved it."

Hayley has always had a keen interest in business since an early age. She harboured ambitions to work in a corporate environment where she would have opportunities to "truly make a difference to the future of our world." As the course progressed, her confidence grew markedly and Hayley was able to equip herself with an armoury of skills that have proven invaluable as her career has taken off – from leading projects and collaborating with teams, to being able to inspire audiences through delivering engaging talks and presentations.

As a Commercial Graduate, working as a Contracts Officer, Hayley has provided frontline contractual support to the UK's fleet while working at a Royal Air Force base. Recently she completed a six-month secondment to the Applied Intelligence Business Unit, working on strategic Government bids. She is now undertaking her final placement before the graduate scheme comes to an end, working as part of 'Team Tempest', which is developing future combat air systems to replace the Typhoon in 2040.

Hayley's abilities and self-confidence have soared throughout the intensive programme: "Within just 18 months of joining BAE Systems, I have been able to work alongside our key partners and customers, collaborate internationally and play a crucial role as part of a team winning a successful strategic bid. The company has allowed me to have responsibility and be accountable from the outset, which has been paramount to my personal development."

Hayley looks back on her University experience as a pivotal stage of her career development, which set her on the road to success: "My time at UCLan completely transformed my life," she remembers. "It enabled me to go from being an administration apprentice at a local college to pursuing an incredible career in the defence industry inside just four years. One of my favourite memories is of the immense pride I felt at my graduation ceremony. My journey was a tough one and I faced a lot of setbacks along the way, but all my hard work finally paid off.

"Now, as I approach the end of my graduate scheme, I am presented with a multitude of opportunities and roles to exit into. It is an exciting time to be working in the industry, and I know that I'll be continuing to learn for the rest of my career."

“My time at UCLan completely transformed my life,” she remembers. “It enabled me to go from being an administration apprentice at a local college to pursuing an incredible career in the defence industry inside just four years.”

Hayley Dickinson

Engaging with global partners

Growing strategic, high quality partnerships in targeted overseas locations, providing international students with access to cutting-edge UK higher education.

University of Central Lancashire Strategy 2015-2020

By staging educational events and activities, UCLan's Confucius Institute is broadening the cultural flavour and landscape of Preston and the wider Lancashire community.



UCLan's newest international partner
SEGi University, Kuala Lumpur, Malaysia.



A world of opportunities

UCLan's longstanding mission to transform lives now extends to every part of the globe.

The University continues to transform lives in all corners of the globe, working alongside communities, forging productive partnerships and giving students opportunities to immerse themselves in different cultures.

In May 2018, representatives from more than 15 African nations came together in Preston for the UCLan African Symposium, an event celebrating the various projects the University is engaged in to transform lives across the continent. It was attended by High Commissioners, government officials and charity representatives from countries including Botswana, Cameroon, Ghana, Kenya, Nigeria and South Africa. During the three-day conference, guests and University representatives took part in a range of discussions on issues including the challenges facing African journalism, public health in Nigeria, and engineering a fire-safe Africa.

The University has been engaged in life-changing projects across Africa for more than two decades. In recent times, nursing, midwifery and sexual health students have been participating in an ongoing project with Kenyan charity, Maa Child, which supports local children to continue their education. In Zimbabwe, Engineering and Fire Leadership students have worked alongside Operation Florian, the fire services humanitarian charity, to help train firefighters.

The University is also involved in various initiatives throughout Asia. UCLan has been delivering UK degrees in conjunction with educational institutions in China for over 30 years. An initial partnership forged with Shenzhen University in the late 1980s has been followed by further successful partnerships with Beijing Institute of Technology, Guangdong University of Foreign Studies (which has seen more than 1,500 students graduate with UCLan-accredited

qualifications in recent years), Shanghai University of Business and Economics, and others.

The Chinese Ministry of Education recently selected UCLan to deliver one of only three Ministry-approved sports degrees. Hunan Normal University in Changsha has collaborated with two principal lecturers from UCLan to establish a BA (Hons) Sport and Physical Education course for Chinese students that innovates in its distinctive approach to teaching PE in China.

Traditionally, physical education in the country is taught in large groups, focusing on a single sport using a formal structure, meaning that participants may not be active for a full session. The new UCLan degree teaches different academic approaches and looks to enhance students' knowledge of a variety of physical activities. UCLan overcame competition from several other UK universities to lead the course, which is taught in English and involves several activities but sees the students specialising in their chosen sports of athletics, basketball and football.

Course leader, Nick Passenger, explains: "We have put together a programme which has the same philosophy as the Preston course. The core modules focus on socio-cultural, physical education and human movement issues. Students have opportunities to gain vocational experience in each of these areas. It incorporates a number of transferable skills through a variety of activities." This innovative method of teaching is contributing to China's efforts to improve the health of its population at a time when obesity levels are at an all-time high.

Other developments in China include a new partnership model established at Chongqing University of Education (CQUE) under the support of the Chinese Ministry of Education Centre for Schooling Development, which has seen 300 students studying UCLan curricula with the potential to obtain a dual degree if they do their final year in Preston. In addition, UCLan was the only UK university invited to deliver a keynote speech at the China Service Center for Scholarly Exchange (CSCSE) national conference, which explored how international educational partnerships are contributing to the country's economic growth.

Building on its success in China, the University has been leading several new initiatives throughout Asia. A new partnership between UCLan and SEGi University in Kuala Lumpur, Malaysia, is enabling students to undertake a range of new courses in the country. This leads to a 'double degree' whereby graduates are independently awarded qualifications from UCLan and SEGi after studying a shared final year curriculum. On completion, individuals can opt to graduate in either Malaysia or the UK. Around 500 students have undertaken the 'double degree' to date, with 1,500 expected to complete the course within three years. Malaysia is recognised as a key transnational education (TNE) hub, a region with significant potential for UCLan to expand its delivery of higher education across international borders alongside overseas partners.

Closer to home, the University celebrated the 10th anniversary of the UCLan Confucius Institute in September 2018. It was established in Preston to enable local communities to experience Chinese culture, art and traditions. Since 2008 it has provided more than 350 scholarships, enabling UCLan students to study in China, and has taught Chinese languages to over 1,200 people. The Institute has engaged



with more than 70 schools and colleges around Preston as well as delivering academic conferences, educational exchanges and large-scale events, including annual Chinese New Year festivities, lion dances and activities at the Harris Museum, which have become popular fixtures in Preston's multicultural calendar.

Professor Graham Baldwin, Vice-Chancellor, said: "Our longstanding mission to transform lives now extends to every part of the globe. We are continuing to seek out new opportunities overseas, forging strategic partnerships which enable us to bring the life-changing benefits of a UCLan education to people all over the world – while contributing to the economic development of the countries involved. At the same time, we are proud to offer all our students a teaching and learning experience with a truly global outlook. We enable them to expand their horizons through opportunities to study overseas, immerse themselves in other cultures and acquire advanced skills and knowledge which will enable them to succeed in today's globalised economy."

Civic engagement with our community

Creating deep-rooted engagement between our University and the wider communities of Preston, Lancashire and the North West, encouraging the sharing of ideas, knowledge and the spark of learning.

Nurturing a vibrant and integrated community based on mutual respect and inclusivity where all staff, students and those with whom we engage feel empowered to succeed.

University of Central Lancashire Strategy 2015-2020



Youngsters see the light at UCLan's Alston Observatory.



Transforming lives for 190 years

2018 was a year of celebration as UCLan looked back on 190 years of transforming lives.

It was a milestone year that provided the University with the ideal opportunity to toast the achievements of students, staff and alumni through the generations. The University of Central Lancashire can trace its roots all the way back to 1828, when its distant forerunner, the Institution for the Diffusion of Knowledge, opened on Cannon Street. Joseph Livesey, a prominent campaigner in Preston's teetotal movement, played a lead role in its inception. Inspired by the Mechanics' Institutes, which were opening up all over the North West, he proposed a similar establishment that would broaden the horizons of local people and offer them a modicum of further education. For a monthly subscription, people could enjoy a library and reading room, a small museum of natural history artefacts, and a lively lecture programme.

Over many years, its successors gradually began to offer access to university-level education as it evolved into The Harris Institute (1882-1956), Harris College (1956-1973), Preston Polytechnic (1973-1984), Lancashire Polytechnic (1984-1992) and eventually the University of Central Lancashire (1992 onwards).

The first glimpse of the 190th anniversary campaign came in December 2017 when thousands of staff, students and friends of the University received a very special digital Christmas card. Recipients were treated to an animated video taking them on a trip through 190 years of history, taking in the changing Preston skyline and the iconic buildings that played a role in the growth of Preston and the University. Its striking visuals, developed by Innovation Lab, featured prominently on the accompanying 190th anniversary website.

The anniversary celebrations officially began on a cold morning in January 2018, when hundreds of staff packed into the Sir Tom Finney Sports Centre

to be photographed in the shape of a giant '190.' The resulting image was used to spearhead the 190th anniversary publicity campaign.

In February, two celebrity Honorary Fellows paid a visit to UCLan. BBC Sport pundit, Mark Lawrenson, and antiques expert, Eric Knowles, starred in a lively short film depicting a time-travelling lecturer who embarks on a trip back to 1828, where he meets Joseph Livesey and joins in a class at the fledgling Institution for the Diffusion of Knowledge. The clip, produced by students and staff from the Faculty of Culture and the Creative Industries, was launched to promote the National Student Survey.

In May, over 60 alumni of The Harris Institute and Harris College were reunited on campus. The oldest graduate in attendance had been a student at the Harris in 1944, while the youngest studied there in 1971. After enjoying an afternoon tea, the group had the chance to enjoy a special collection of photographs and memorabilia from the University archives.

Alumni reunions extended far beyond Preston. That same month more than 100 Chinese graduates reunited in Beijing for an evening drinks reception, the culmination of a week-long tour of China by UCLan senior management to discuss new partnership opportunities.

In June, the 'Radical Temperance' conference in Preston brought together historians, social scientists and voluntary workers with an interest in the control of, or abstinence from, alcohol. The event commemorated the contribution of UCLan founding figure Joseph Livesey to Preston's teetotal movement. Highlights included an authentic 'Magic Lantern Show' reminiscent of those popularised by campaigners in the nineteenth century.

The anniversary events programme stepped up a gear following Founders' Day in October, the 190th anniversary of the historic meeting at Preston's Corn Exchange, which brought the Institution for the Diffusion of Knowledge into being. November saw the premiere of 'Project 190', a unique dance performance that brought the institution's history to life through an exhilarating show produced by the internationally renowned choreographer, Risa Jaroslow. Later that month, staff, alumni and members of the public were invited to a special exhibition



Above left: The foundation stone of the new Jubilee Technical School was laid in 1895. Later known as the Harris Institute and nowadays as UCLan's Harris Building, the building was opened in 1897. Above right: Dr Keith Vernon (right) the author of a new book about the history of UCLan, is pictured with Senior Faculty Librarian Bob Frost.

showcasing rarely seen artefacts discovered in the University archives. There were special talks, drinks receptions and a networking event for alumni, with visitors enjoying guided walking tours exploring some of the iconic buildings that have been part of UCLan's long history. University historian, Dr Keith Vernon, launched his new book, *A History of the University of Central Lancashire* – an engaging look back at 190 years of revolutionary educational change in Preston, with a focus on the post-1992 era.

Dr Vernon, who joined the institution during the Lancashire Polytechnic days, said at the launch: "Higher education has changed so much during the past 30 years, with improving access to university, increasing demand, and rapidly shifting government policy. UCLan has been constantly inventive and innovative to keep pace with these enormous changes and to thrive in the new environment."

"One thing that stands out clearly throughout its history is the University's commitment to widening participation and giving every student a chance, no matter what their background."

After the success of the 190th anniversary celebrations, staff and students will soon be able to turn their attention towards the big one: the institution's 200th anniversary, coming up in 2028!





A sustainable approach to improving our lifestyles

Local residents work with international experts to propose innovative ways to improve the local neighbourhood and become energy efficient.

The vast majority of people in the UK live in urban areas where residents are becoming more aware of how the way they live affects their health and well-being. Air pollution, congestion and housing quality are all examples of how the environment can impact our physical and mental health but, in modern society where consumerism is booming, is there a way to be more energy efficient and enjoy a better standard of living at the same time?

In 2018, Preston decided to find out. The University teamed up with Preston City Council to welcome the City-zen Roadshow; a €22 million European Union (EU) funded project that brings internationally celebrated experts in architecture, technology and environmental sustainability together with local residents to explore new living ideas. Its key aim is to find new ways of creating a more energy efficient city and improve lifestyles.

Preston was the seventh European city to take part in the intense five-day project, which was led by UCLan Professor of Architecture, Craig Martin. Spread out across several locations, each day covered a different topic including ways to make better use of buildings, streets and recreational areas, improving transport links and connecting neighbourhoods more easily. In turn, the proposed plans suggested ways of refining energy use and reducing Preston's carbon footprint.

The project initially focused on the Broadgate area of Preston and saw local councillors, businesses and residents work together to come up with sustainable ways to improve the local carbon footprint. The team found that, on average, households in Preston produce seven tonnes of carbon dioxide per year, which is in line with the EU average.

Ideas included energy cascades running across the city down into Broadgate, where high-level heat energy from recycling processes would make its way through underground district heating pipes into people's homes. Preston train station could have a local and a global side, where the local side facing Broadgate would include a new community connecting tram and public square. Contributors also felt that Broadgate needs a centre with local shops selling local produce. This could lead to the river edge, which is made softer to allow people to better engage with its potential through activities such as rowing. A river promenade and green network would increase the number of people cycling to work in Preston from 1,400 to 10,000, vastly reducing the need for cars that are currently suffocating the city.

Craig Martin said: "We spent an intensive week working with local businesses, councillors and residents on sustainable future city solutions for Preston. We've focused on Broadgate, but many of the ideas can be applied to other areas of the city.

"Our proposals may at first appear radical, but they are actually formed by the place itself and are needed to respond to a massive challenge – climate change. We learnt that sustainability isn't for experts to solve alone, but for everyone

to come together and contribute. Sustainability is not about sacrificing something, but instead getting value and enjoyment out of our neighbourhoods and better connecting them.

"At the start of the Roadshow, citizens understandably ask how much these designs will cost to build? But by the end, the question is how much will it cost if we don't build – in terms of our children's children's future health, energy security economy, happiness and survival."

The leader of Preston City Council, Councillor Matthew Brown, and Chief Executive, Adrian Phillips, both attended an energy workshop at the Gujarat Hindu Society, Broadgate, as part of the project.

Councillor Matthew Brown said: "It's a really good initiative and one we fully support. Climate change is a pressing issue of our time and as the Government hasn't taken the lead, it is down to cities to take it up. We're a progressive and forward-thinking Council and we'd be foolish to not look at ideas such as this. Some of the ideas I've seen have great potential, such as implementing locally produced energy, and we want to take forward plans that are realistic and deliverable."

Adrian Phillips said: "The Council is an influencer, but we can't make changes alone and need valued local partners, such as UCLan,

to implement positive change. The City-zen Roadshow brings together people with various expertise to come up with ways to improve how people enjoy living and working here and, at the same time, make it more energy efficient. Preston has its challenges such as pollution, congestion and poor home insulation, so I'm excited to see some innovative ideas on the table that local residents can play a part in developing."

Local architect, John Bridge, is based on Winckley Square. He commented: "I welcome projects that get people talking about regeneration and this is the perfect conduit to do this. There is nothing stopping us from turning Preston into a clean energy city. We don't need to copy what other cities are doing, we can come up with our own exciting ideas."

The results of the Roadshow were presented to Preston City Council with the hope that some proposals will be considered in future developments.

Nicosia in Cyprus will be the destination of the next City-zen Roadshow and will focus on carbon neutrality, community connection, health and energy prosperity. UCLan UK and UCLan Cyprus are set to team up to become key contributors to this global sustainability initiative, making for even stronger links with Cypriot colleagues based at the Pyla campus in Larnaca.





Taking a military approach to growing medical talent in West Cumbria

Ex-military personnel to bolster region's skills gap through University's National Centre for Remote and Rural Medicine.

Due to its sometimes remote rural locations, Cumbria has faced challenges in recent years in recruiting and retaining healthcare staff. It is well known that residents in the county, particularly those living in the most isolated communities in West Cumbria, have been affected by a healthcare skills shortage in what is the third most sparsely distributed population in England.

In a pioneering approach to finding a solution, UCLan is aiming to recruit ex-military personnel through its National Centre for Remote and Rural Medicine to retrain in medical roles in West Cumbria.

Believed to be a first in the UK, the University is looking at qualifications gained in the forces to meet the entry criteria for admission to its programmes on a case-by-case basis. It is hoped this approach will encourage the staff who train in remote and rural areas to seek work in the region when qualified.

Courses available for ex-forces personnel through the National Centre for Remote and Rural Medicine are a two-year MSc Physician Associate Practice course to work as a physician associate in the NHS, a foundation degree in medical sciences that will act as a gateway for those who need additional qualifications to apply, and continuing professional development courses to develop skills in specific areas of rural medicine.

Professor Cathy Jackson, Executive Dean of the Faculty of Clinical and Biomedical Sciences, said: "We're very proud of this initiative, which provides an innovative approach to recruiting and retaining healthcare professionals in remote and rural areas of Cumbria.

"People who have worked in the services have qualities that the University is looking for

and which make them particularly suitable for practice in the areas in question. They are conscientious, professional team workers, and think on their feet in areas where help might not be immediately available and in sometimes very stressful situations – all of which are qualities needed for remote and rural practice."

This unique approach was backed by the former Rt Hon Secretary of State for Defence, Gavin Williamson CBE MP, and Copeland MP, Trudy Harrison, during a visit to UCLan's campus at Westlakes Science and Technology Park near Whitehaven.

Trudy Harrison said: "Both the former Secretary of State and I were inspired by the growing medical training centre and now the incredible achievement of becoming the National Centre for Remote and Rural Medicine.

"I can't commend UCLan highly enough, it is tackling the national challenge of recruitment and developing ways in which we can upskill members of the Armed Forces to work in our local hospitals and I will do all that I can to help."

UCLan has also been in discussion with local councils who are hoping to attract ex-service personnel to the area by offering free or subsidised accommodation and preferential choice of schooling as a part of the incentive package.

"In the short and medium term, the University would hope to recruit ex-services personnel and others with appropriate experience to come and work in the region in the capacity that they have already been trained for – while at the same time training to become a doctor," said Professor Jackson.

"These students, already mature by definition, will hopefully – and especially with the support of the local councils – put down roots in the area and on completion of their studies be looking for employment in the area, providing the sustainable workforce of the future."

Developed in partnership with North Cumbria University Hospitals NHS Trust, NHS Cumbria Clinical Commissioning Group and the Cumbria Partnership NHS Foundation Trust, the National Centre for Remote and Rural Medicine facilitates local medical education, training members of the community to work in the regional health service as well as attracting new health professionals to the area.

UCLan is already helping to provide additional support to frontline medical staff in Cumbria, with physician associate graduates now employed in the region and third year medical students currently undertaking clinical placements in GP and hospital clinics.

Professor Jackson added: "Our medical students bring further medical support to a local health economy under severe pressure. While on placement they are learning a huge amount from dealing with patients in GP and hospital locations.

"The remote nature of West Cumbria means the students experience a more diverse health economy, one which other medical students may never see, and they have the opportunity to build skills unique to a rural setting. It's an exciting time for them all."



Gavin Williamson, former Secretary of State for Defence and current Secretary of State for Education, joins Copeland MP Trudy Harrison for a tour of the University's medical facilities at Westlakes Campus, Cumbria.

We're very proud of this initiative, which provides an innovative approach to recruiting and retaining healthcare professionals in remote and rural areas of Cumbria.

Professor Cathy Jackson,
Executive Dean of the Faculty
of Clinical and Biomedical Sciences



Crowds flock to major annual community event

UCLan's Lancashire Science Festival continues to inspire a new generation.

Since its inception in 2011, the annual Lancashire Science Festival has quickly become one of the biggest free events to be held in the red rose county. The mass appeal of the now three-day festival, and its subsequent wide-ranging programme of events for high school pupils and adults, has seen nearly 70,000 people flood through the door.

The festival, which focusses on the fun and real-world applications of science, technology, engineering and maths (STEM), reflects UCLan's ethos of innovation, invention and industry. The University has a long history of enabling young people to pursue STEM through education. As Lancashire grew during the industrial revolution the University's forerunner, The Institution for the Diffusion of Knowledge, offered lectures in STEM subjects to the people of Lancashire. To this day, UCLan is helping train the scientists, inventors and engineers of the future.

In 2018, the temperatures soared and the University's Preston Campus was awash with vibrant yellow as streams of student and staff

volunteers guided hundreds of excitable groups of schoolchildren around the campus on the two dedicated primary school days. The public day saw thousands of members of the public from across the North West region and beyond attend. Thousands of people engaged with the shows, workshops, exhibits and activities, making it one of the busiest Lancashire Science Festivals to date.

The much-loved Titan the Robot returned to be the headline act, with large numbers watching the all-singing and dancing performance. Among the attractions at the award-winning event were a petting zoo, The Cloud Factory and the Royal Institution's Feel The Power. Other

highlights included the maths behind Disney and Pixar films, the wonders of water plus the animal detectives.

Jo Owens-Crook, a parent of nine-year-old Isabella and seven-year-old Oliver, is one of the thousands of people who return year-after-year for a family fun day-out. She said: "We absolutely love coming along to the Lancashire Science Festival, it's an event my children look forward to so much. What they enjoy most is the diverse range of hands-on activities. They love wearing the scrubs and using the state-of-the-art medical kit in the health areas, they particularly like the events with animals and they really enjoy the maths and chemistry problem solving tasks. It's a unique event for this area and we can't wait for the next one."

In addition, another 7,000 teenagers engaged with a number of science roadshows that have visited high schools across the North West.

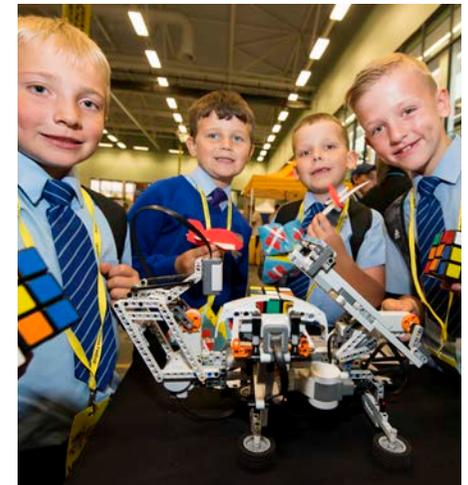
Dr Liz Granger, Lancashire Science Festival Director, said: "It was amazing to see around 20,000 people on our campus, and at the high

school roadshows, who were fully engaged with the wide variety of science, engineering, technology and maths activities we had on offer. Every year our award-winning Lancashire Science Festival gets better and this year was no exception. The weather played a huge part too in bringing families of all ages out for a free summertime event.

"To see the mass appeal of a free STEM related festival is wonderful and it shows the appetite of schools and parents to bring children along and inspire the next generation.

"Our sponsors have been great again this year. It was a real team effort, with contributions from staff, students, volunteers, regional businesses and organisations and the result has been seeing thousands of youngsters leaving with huge smiles on their faces with an understanding that science is really fun."

Opposite: A captivated audience at one of the many science demonstrations.
Below: Children from across the region enjoy the sights and sounds of the Lancashire Science Festival.



Creating engaging spaces for our students and stakeholders to live, study and work

Creating transformational change of the Preston campus to provide an enhanced environment for the highest quality teaching, learning, research and knowledge exchange – underpinned by a commitment to environmental sustainability.

University of Central Lancashire Strategy 2015-2020

The Student Centre, new square, and Engineering Innovation Centre following completion of the project in 2021.





Campus Masterplan: World class vision becomes a reality

£35 million Engineering Innovation Centre to transform lives and drive the future prosperity of Lancashire.

Since the announcement in 2015 that the University would transform its Preston Campus via a £200 million Masterplan development, the realisation of the project seemed to be in the distant future – but the pace of its implementation has been real and visible.

Two new £8.15 million social spaces and the £1 million Oasis multi-faith centre are being well used and are receiving glowing feedback from staff and students, sitting alongside new green spaces such as the Foster Garden. One of the key projects, the £35 million Engineering Innovation Centre (EIC), has also been completed and welcomed its first cohort of students in September 2019.

The EIC will enable Lancashire to take centre stage in the Fourth Industrial Revolution, mirroring its importance as the beating heart of the original Industrial Revolution in the 18th and 19th centuries.

A signature project within Lancashire's Strategic Economic Plan, it secured £10.5 million via the Lancashire Enterprise Partnerships' Growth Deal with the Government and it also received £5.8 million from the European Regional Development Fund (ERDF) and £5 million from Higher Education Funding Council England's STEM Capital Fund.

It will be a hive of innovation, promoting collaboration and knowledge transfer between University researchers, industry experts, businesses and students. While enhancing Lancashire's position as one of the most innovative engineering and manufacturing regions in the UK, the EIC will also establish the University as one of the UK's leading universities for engineering innovation by driving new

discoveries and developments in emerging fields such as 3D printing, artificial intelligence, drone technology and The Internet of Things.

Work at the EIC will lead to new methods, ideas and technological breakthroughs that have the potential to transform lives and drive the future prosperity of Lancashire.

Michael Ahern, Chief Operating Officer at UCLan, said: "The EIC is a significant asset to the University but also the wider region and the UK. It really is a first-class facility that is brimming with new engineering and teaching technologies that will help create innovative engineers of the future while having a dual role in cultivating substantial educational and economic benefits."

As the finishing touches were being applied to the EIC, the Masterplan's nucleus – the £60 million Student Centre and new square – takes another step forward to seeing its fruition with site preparation works beginning. However, to get to the final design from concept stage, widespread community consultations have taken place, which involved special interest user groups, members of the public, local businesses, staff and students. The feedback received was used to shape the final design of the Centre and new square, not forgetting the new highways scheme that, once in place, will enable access for all.

The final designs, approved by Preston City Council, will see the new Student Centre having a BREEAM (environmental quality) rating

of 'excellent', with over 7,304 sqm of space providing a new reception area, informal learning spaces and a student wellbeing support centre.

Designed as an iconic gateway to the City, the project will also provide Preston with one of the largest civic spaces developed in England for 100 years. The new square will span 8,440 sqm, delivering flexible and adaptable spaces for a wide range of community, public, business and student uses.

One of the primary functions of the Student Centre and new square is that it will bring the city close to the campus and also stimulate additional regeneration projects and business investment in the University quarter.

Pro-Chancellor and Chair of the University Board, David Taylor, added: "The plans have been meticulously thought through ensuring that all

our stakeholders benefit from this investment. First and foremost, our aim is to deliver an exceptional experience for our students while providing important assets for Preston and the wider community.

"While it's a scheme that's being delivered and funded by the University, and is vital in attracting people to our institution, it will help to position Preston as a forward-thinking place where people of all walks of life are welcomed and valued. By attracting talented people to the City, building on the skills of the people already here, stimulating investment and creating a sense of civic pride, we'll have all elements in place to create a vibrant and dynamic future for Preston.

"The Masterplan has always been about creating opportunity. Not just for the University, but opportunities for all."



The proposed reception area of the new Student Centre.

Engaging with business through innovation, enterprise and knowledge exchange

Cultivating a dynamic, supportive and enterprising environment in which our students, graduates and staff can establish resilient businesses – an area in which we will continue to be sector-leaders.

University of Central Lancashire Strategy 2015-2020



Cutting-edge technology, including virtual reality applications, is set to be at the heart of the fourth industrial revolution.



Recycling partnership brings tonnes of benefits

The application of academic research to generate huge benefits for business, the environment and the wider community.

An award-winning partnership between the University and Preston-based enterprise, Recycling Lives, is generating literally tonnes of benefits for the environment, local communities and the regional economy.

Recycling Lives is a unique enterprise that combines a successful business model with a commitment to being a force for good in society. In addition to the huge environmental benefits of its work, the firm also diverts profits from its everyday commercial operations into funding programmes that provide life-changing support to homeless people, contribute to the rehabilitation of ex-prisoners and tackle food poverty by redistributing food to disadvantaged groups including food banks and homeless shelters.

Formed in 2008, Recycling Lives is an expert in total waste management: collecting, processing and recycling industrial waste, including vehicles that have reached their 'end of life' stage, scrap metal, plastics, paper and cardboard. Thanks to its efforts, thousands of tonnes of these materials are diverted from landfill and recycled into high quality materials which can be exported worldwide for re-use in manufacturing processes. Until recently, however, the company was still forced to commit 1.2 tonnes of waste to landfill sites every year, thwarting its aspirations to deliver a 'closed loop recycling solution' whereby 100 percent of waste is processed into useful materials with no detrimental impact on the environment.

A two-year Knowledge Transfer Partnership (KTP) between the University and Recycling Lives has been set up to address this problem. Professor Karl Williams, Director of UCLan's Centre for Waste Management in the School

of Forensic and Applied Science, has been collaborating with Dr Ala Khodier, chemical engineer and UCLan associate, and Paul Finnerty, Legal Director at Recycling Lives, over the past two years. The remarkable success of this partnership led to national recognition in November 2018 when the team received the Times Higher Education Award for Most Innovative Contribution to Business-University Collaboration.

Recycling Lives processes around 100,000 cars that have reached the end of their life every year. These vehicles are first de-polluted to remove all the fluids (fuel, brake fluid and oil) as well as their batteries before going to a pre-shredder. After this, they finally meet their demise at the hands of a fragmentiser. While shredded metal components can be recovered easily with the use of separators and magnets, much of what's left behind, the 'automotive shredder residue' (a mixture of foams, rubber, fibres and textiles) is more problematic. Prior to the partnership there was no method of salvaging this residue and so it was sent to languish in landfill sites.

Since then, following months of laboratory testing, analytical support and pilot trials, the team has been able to perfect an innovative new thermal process that converts the shredder residue into oil and gas, which can be used to generate electrical energy. The teams have also identified traces of metals retained in the residue that can be extracted and returned to the market, generating a new and lucrative

income stream. As a result, Recycling Lives has taken huge strides towards implementing the 'closed loop' solution they are striving for, putting the UK on track to meet the EU's directive on end-of-life vehicles, which sets an ambitious recycling target of 95 wt% (percentage by weight) of the vehicle.

These breakthroughs have resulted in significant benefits for Recycling Lives, generating income that is enabling them to invest even more in their support of local community projects. It has been estimated that by implementing the new thermal process, it will be able to generate 1,200 megawatts of electricity and make savings of £1.5 million per year.

Recycling Lives and the University recently announced a joint venture that will involve the construction of a £750,000 research facility to commercialise the successes of the partnership. The project has safeguarded existing jobs at the company while creating new job opportunities across its operations. Recycling Lives has also committed to building two new commercial plants at a cost of £3 million each. In addition, by working closely with undergraduate and postgraduate students, the project is producing a lineage of specialist technicians equipped with the skills to run these operations successfully.

UCLan's Professor Karl Williams, who led the Knowledge Transfer Partnership, commented: "The collaboration has been so successful that the University and Recycling Lives are continuing to work together on new opportunities. This is a fantastic example of what can be achieved when an organisation links with an academic institution, enabling us to transfer our academic research into an innovative commercial solution which is generating huge benefits for business, the environment and the wider community."



Opposite and above: Professor Karl Williams (left), Director of the Centre for Waste Management at UCLan, and Dr Ala Khodier, Innovations Engineer at Recycling Lives, inside one of Recycling Lives' processing plants.

The collaboration has been so successful that the University and Recycling Lives are continuing to work together on new opportunities. This is a fantastic example of what can be achieved when an organisation links with an academic institution.

Professor Karl Williams, Director of the Centre for Waste Management



Waste materials have never looked so good

UCLan's first spin-out company receives financial investment to scale up production.

At a time when world leaders, scientists and environmentalists are discussing what people can do to safeguard the future of the planet, diverting waste materials from landfill is always high on the priority list.

Recycling is encouraged in homes, businesses and on the high streets, but UCLan's first spin-out business has taken industrial recycling to a new level, and the future looks bright thanks to new financial support.

Alusid, which was created in 2015, designs and uses a patented process to manufacture sustainable, architectural, high-quality building materials by recycling industrial waste ceramics and glass, which would otherwise go to landfill. The new surface material, produced from at least 98 percent recycled waste, has been transformed into tiles, work surfaces, table tops and furniture, which are all sold under the brand name SilicaStone.

In 2018, the award-winning company, which began from a research project between UCLan academics, Professor David Binns and Dr Alasdair Bremner, to promote how designers can be more sustainable and environmentally responsible, raised £1.34 million to support the design, planning and location of a new factory to transform its production capacity.

The fundraising has been supported by new and existing investors, including Frontier IP, a company that specialises in the commercialisation of university intellectual property.

Currently, the products are made through a batch process using three kilns at its plant on an industrial estate just outside Preston City Centre. The proceeds of the fundraising will be invested in developing a new factory based on a continuous

flow process, where products are fired by being fed on to a conveyer belt system, called a roller hearth tunnel kiln, in a steady stream.

The move follows the successful testing of a pilot production line with world-leading Italian ceramic equipment company, Sacmi Group, which will also help to design the new factory. The Alusid process means the factory will be much more energy efficient than those used for making conventional tiles.

The plant is expected to start production in 2020. Once in operation, Alusid's capacity will rise from 4,000m² a year to 30,000m² a month, based on a single line producing tiles. Currently, it is estimated the cost of building a factory is about £10 million. Options being explored to finance the build include an initial public offering.

Dr Bremner, Co-founder and Chief Operating Officer of Alusid, said: "The building industry is increasingly looking for innovative sustainable products such as SilicaStone. This successful fundraising will enable Alusid to move to the next stage in development where we can really capitalise on the economies of scale coupled with lower energy and material costs."

Professor Binns added: "This is a massive validation of our research which started out as a project to promote how designers could be more sustainable and environmentally responsible. This new funding will enable Alusid to scale up its production processes and enable us to meet the demand from interested customers."

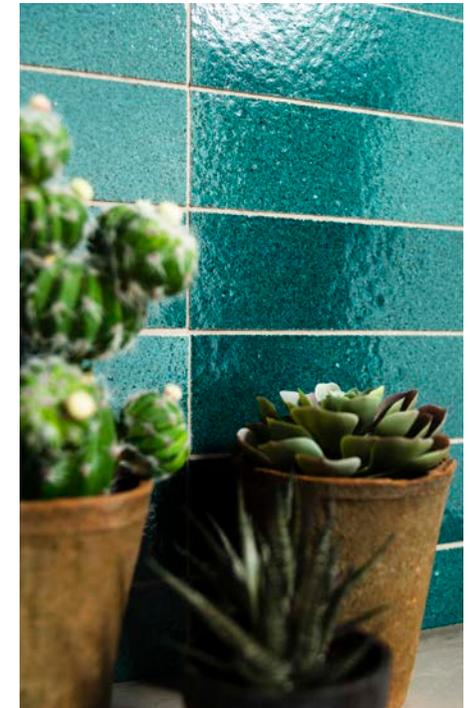
Frontier IP Chief Executive, Neil Crabb, commented: "We're delighted with the success of the Alusid funding round and the belief shown by investors in the potential of the company. With consumers increasingly focused on sustainability and the impact of waste on the environment, we are confident that Alusid has a very bright future."

Alusid is attracting strong interest, and currently has more than 100 projects in its pipeline. SilicaStone buyers include Amazon, Four Seasons Hotels, Nando's and Wells Fargo bank, which is using the material in its prestigious



new London HQ. The company has also agreed to make an exclusive range of sustainable tiles for Parkside Architectural Tiles, the commercial arm of Topps Tiles plc.

The company won the most recent Jonathan Hindle prize for outstanding design in 2D materials, awarded by the Furniture Makers' Company. It is also actively exploring opportunities for international expansion, either through licensing or establishing joint ventures. Initial interest has been expressed by organisations in the USA, China and Portugal.



Professor David Binns (left) and Dr Alasdair Bremner manufacture sustainable, architectural, high-quality building materials by recycling industrial waste ceramics and glass.



Left to right: Rebecca Woodley-Jones, Vice President of Sales, Swellaway with Olivia Greenhalgh and Hannah Shore, KTP Research Associates.

Breakthrough for future of sports injuries

Academic research helps optimise performance of new all-in-one solutions to common sports injuries.

The pressure for professional athletes to be at the peak of their physical fitness every time they take to the field, track, course or pool is huge. The multi-billions of pounds involved in the global industry mean owners, boards, managers, coaches and fans demand success. All aspects of the sport are analysed, but a large part of this success is down to the sheer physical condition of the elite athletes. Injuries can make the difference between being crowned world champions, being eliminated early from a competition or missing out completely on that one opportunity to test yourself to the limits on an international stage.

Advances in sports treatments are ever-evolving and in 2018, a UCLan professor joined forces on a collaborative project to create a portable technology-enabled lightweight device that can help treat common sports injuries.

Swellaway offers controlled compression, combined with cooling and heating, in a fully portable device without the need for ice, water and heavy equipment. In addition to being portable and providing precisely controlled treatments, one of the key benefits to the medical profession is the ability to download data that shows the exact usage of the device when the product is used off-site or at home by athletes.

Swellaway has the backing from professional footballer and England's all-time leading goal scorer, Wayne Rooney, who is the lead investor in the company that bears the product's name. Swellaway's shareholders have sponsored a Knowledge Transfer Partnership (KTP), where academic expertise is applied to private sector product development or work processes. This has enabled Jill Alexander, Senior Lecturer in Sports Therapy, and Jim Richards, Professor of Biomechanics from UCLan – and Dr Chris McCarthy and Professor James Selfe from

Manchester Metropolitan University – to develop the device.

Professor Richards said: "Traditionally, there has been a lack of devices that provide all-in-one solutions to common sports injuries. Our research will provide evidence as to what the best dose response is for the device. By the end of the project, we hope to have a number of protocols that will guide practitioners to optimum use of this device. We also hope to see improved patient outcomes as a result of its use.

"The exploration of the interaction between temperature and pressure, using the Swellaway device, provides an opportunity to explore the optimisation of treatment through a better understanding of the relationship between these factors."

Ligament sprains and muscle strains are common injuries, especially in sports, and it is important that action is taken soon after they occur to prevent further complications. Currently, healthcare professionals and physiotherapists use the 'POLICE' method to manage injuries – standing for Protection, Optimal Loading, Ice, Compression and Elevation. However, most evidence summaries suggest there is weak

evidence to support the interaction between cooling and compression.

The Swellaway technology offers controlled compression, combined with precise cooling and heating. Manually operated by an attached control pad and mobile app, the device accurately controls the temperature on the surface of the skin between 6°C and 40°C. It can also control the rate of temperature increase and decrease, as well as control the level of compression. In addition, it can control re-warming after cold treatment.

The company believes that it is these high levels of control that are key to successful rehabilitation. But to help take the product to market, the company needed a strong evidence base to highlight its benefits.

Over the past four years, the university team has been working with the company by offering independent research and development consultancy. They are now at a stage where they

will be testing the product to see how well it works. They will be working with a KTP associate, Olivia Greenhalgh, to develop optimal clinical protocols by measuring the temperature of the device, the pressure applied, and the length of time that temperature and pressure are applied. Having established these parameters, the team will then be able to determine the factors that produce the best treatment response.

Robin Slinger, Chairman of Swellaway, said: "The research will be instrumental for the success of our product. We are sure that it will help us successfully develop our current product together with our future planned devices."

Professor StJohn Crean, UCLan Pro Vice-Chancellor (Clinical and Health), added: "This project is a great demonstration of collaboration to assist the development of new technology from Swellaway, which aims to help individuals after sport injuries. I congratulate the team and company in securing the funding for this exciting project."



Exploring the interaction between temperature and pressure using the new Swellaway device.



Senior Lecturer Jane Souyave pictured with the Fidget Widget® Toolkit.

Innovative new toolkit helps those living with dementia

UCLan and Alzheimer's Society collaborate to develop Fidget Widget® Toolkit.

There are 850,000 people with dementia in the UK, with numbers set to rise to over one million by 2025. The disease is one of the main causes of disability later in life, ahead of cancer, cardiovascular disease and stroke and on top of this there is no cure for Alzheimer's disease or any other type of dementia.

Now academics at the University and the Alzheimer's Society have developed a specialist toolkit that is being sold nationally and internationally called the Fidget Widget®. The product is proving to be a real success in supporting the wellbeing of those living with dementia.

The innovative toolkit was the brainchild of Judith Bower, Alzheimer's Society Dementia Adviser, and Jane Souyave, Senior Lecturer at UCLan.

Jane and Judith had developed the toolkit following extensive market research and after recognising there was a gap in the care market for a product that could help people with dementia and their carers.

Judith Bower said: "Carers often described fidgeting as a negative and disruptive behaviour. We wanted to create something that would tackle this idea, while, at the same time, creating something engaging that people with dementia could benefit from."

The specially designed widgets, which have been brought to market by Active Minds, use touch, feel and repetitive movements, each with a particular motion; spin, slide, twist, turn and roll, and are intended to be unrecognisable, removing any need to rely on memory or words to use them.

Jane Souyave added: "In collaboration with the Alzheimer's Society and Active Minds, the



The Fidget Widget Toolkit is the result of eight years of research and development.

Fidget Widget Toolkit is the result of eight years of research and development, and provides an opportunity for those with advanced dementia to be engaged in meaningful activities that enhance personal wellbeing."

The results of testing the product in people's own homes, day centres and care homes, confirm that users feel occupied, engaged and included in a meaningful activity of their choice. Caregivers also reported there was an ongoing and lasting wellbeing effect.

The team was supported with funding from the Alzheimer's Society and UCLan's Innovation and Enterprise team through its Ideas Investment Fund, which provides up to £20,000 in funding to support university staff to collaborate with external companies to create or validate new products, services or processes. The Innovation and Enterprise team also provided Judith and Jane with support on commercialisation and intellectual property.

Carol Benabda, a Dementia Support Worker at the Alzheimer's Society, worked with people affected by dementia through engagement with the toolkit and said: "It was very much a wow moment, big smiles on faces. A lady with dementia immediately began to interact and engage with the Fidget Widgets – she was laughing with a big smile on her face and spent a long time exploring the tools."

"The family of a lady told us that when they collected her from the day centre at the end of the day often she was cross but when she had spent some time using the tool she was different. She was happy, and it lasted throughout the evening."

Ben Atkinson-Willes, Founder and CEO of Active Minds, concluded: "We are delighted to be partnering with the Alzheimer's Society and

UCLan to bring the Fidget Widget to market. Active Minds has spent the past eight years creating products to make people with dementia feel valued and included.

"As it is often those with moderate and advanced dementia that are harder to reach, we are excited to now be able to offer more to those customers. We have already secured pre-orders from care groups and international partners as many have recognised this meets a need for those with more advanced dementia."

The full Fidget Widget Toolkit is available at alzheimers.org.uk/shop and active-minds.org priced at £59.99 for the complete kit of five tools, or you can buy each tool for £12.98 each.

“Carers often described fidgeting as a negative and disruptive behaviour. We wanted to create something that would tackle this idea, while, at the same time, creating something engaging that people with dementia could benefit from.”

Judith Bower,
Alzheimer's Society Dementia Adviser

Graduation and Honorary Awards

The culmination of the academic journey is the University's Degree and Award Ceremonies. It's not just in Preston where our graduates celebrate their success but at ceremonies across the world in countries such as China, Oman, Mauritius and Greece. In Cyprus, our graduates celebrate their achievements at the Pattichion Municipal Amphitheatre, Larnaca, receiving well-deserved recognition for all their hard work from the University, family and friends.



congratulations
TO OUR GRADUATES

THE BRITISH
UNIVERSITY
OF CYPRUS

uclan
University of Central Lancashire
— CYPRUS —

graduation
CEREMONY



During the graduation ceremonies, the University confers Honorary Doctorates or Fellowships on distinguished people who have made significant contributions to their field, or who have strong links with the region. In 2018, three Honorary Doctorates and six Honorary Fellowships were conferred to the following individuals:



Sheena Byrom OBE



Patrick Holden



Professor Eileen Fairhurst MBE

Honorary Doctorates

Sheena Byrom OBE was acknowledged for the significant contribution she has made to the development of the midwifery profession at local, national and international levels. She became one of the UK's first consultant midwives and led the development of three birth centres. Her midwifery memoirs turned into a Sunday Times bestseller and she runs an online hub for midwives and maternity workers. Sheena was awarded an OBE in 2011 and is an Honorary Fellow of the Royal College of Midwives.

Patrick Holden was recognised for his academic achievements in law and the significant contribution he has made to the Moses Holden Scholarship Fund. During his distinguished career he has worked in law, international marketing and the British Army. He now runs three property, insurance and investment businesses and is acknowledged as a dog behaviour and training expert. He funds an astrophysics bursary to honour his three times great grandfather who was involved in the creation of the Institution for the Diffusion of Knowledge, now UCLan.

Professor Eileen Fairhurst MBE was acknowledged for the significant contribution she has made to the development of the University's School of Medicine and her academic achievements in the field of health and wellbeing. The Chairman of the East Lancashire Hospitals NHS Trust has spent more than 40 years working in the NHS and her research has been published in more than 70 peer reviewed papers and abstracts. Her contribution to the NHS was recognised in 2008 when she collected an MBE from Buckingham Palace.



Charles Hadcock



Stephanie Slater MBE



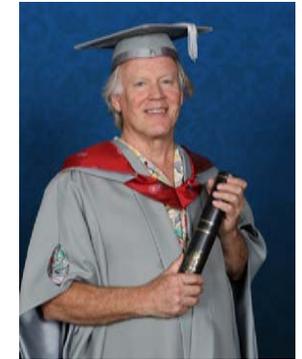
Ann Turner



Kevin McGee



Barry Cunningham OBE



Enrique Pardo

Honorary Fellowships

Charles Hadcock was acknowledged for the significant contribution he has made to the world of fine art throughout his successful career as a sculptor. Specialising in large-scale, cast metal pieces, he has produced sculpture for public spaces and private organisations for the past 25 years. He is a pioneer of sustainable energy and established Creative Lancashire. He owns a specialist printing company and has been a Lancashire Arts Festival Awards judge. In 2007, Charles became a lifetime recipient of the Queen's Award for Enterprise Promotion.

Stephanie Slater MBE was recognised for the significant contribution she has made to the world of sport through her successful swimming career. She represented Great Britain in 2009 and joined the British Swimming Intensive Training Centre. After a serious arm injury, she classified as a Paralympic swimmer. The World and European record holder went on to win gold and silver medals at the Paralympic Games, World Championships and Commonwealth Games. She was awarded an MBE in 2016 for her services to sport and has now retired.

Ann Turner was recognised for the significant contribution she has made to the partnership between Myerscough College and the University through her strong leadership and significant development of Higher Education provision at the College. As a retired college principal, and after gaining financial management qualifications, Ann was appointed Director of Finance at Myerscough. In 2006, she became the College's Chief Executive and Principal. Her work to develop higher education provision with UCLan led to Myerscough being awarded Associate School status.

Kevin McGee was acknowledged for the significant contribution he has made to the development of the University's School of Medicine through the instrumental strategic support he has provided to our partnership with East Lancashire Hospitals NHS Trust (ELHT). During his career, Kevin has excelled as a Director of Finance, Chief Executive of an acute hospital, and Chief Executive of two Teaching Primary Care Trusts. As ELHT Chief Executive, he has supported UCLan to become the key provider of healthcare graduates for the region.

Barry Cunningham OBE was recognised for the significant contribution he has made to the publishing industry and his ongoing support to the University, particularly in relation to the MA Publishing programme. While at Penguin Books, he worked with some of the biggest names in literature, including Roald Dahl. He took a top job in the Children's Division at Bloomsbury Publishing and signed up JK Rowling's 'Harry Potter and the Philosopher's Stone'. Barry was awarded an OBE in 2010 and acts as an external consultant on UCLan's MA in Publishing.

Enrique Pardo was acknowledged for the significant contribution he has made both in practice and through his cultural and psychological studies to the international field of contemporary theatre performance. For the past 40 years, the globally celebrated theatre director, performer and painter has excelled in his chosen genre. Since 2005, UCLan's performing arts students have participated in professional collaborations, training and cultural studies hosted by the Paris-based Pantheatre, of which Enrique is a co-founder and director.



Academic success in the face of adversity: inspiring stories from the class of 2018

Obtaining an academic degree is a huge achievement for anyone and involves several years of hard work and sacrifice. While some students have to miss out on social events, or juggle study with a job during their time at university, others face much bigger challenges to realise their educational goals.



Caitlin Tattersall is a prime example of what can be achieved against all odds. The young mum from Blackpool had to deal with an enormous personal tragedy during her studies at UCLan and yet still achieved a first-class degree. She battled through her degree in social work with support from family and UCLan tutors after her five-year-old son, Kaden, lost his fight against systemic onset arthritis in November 2016.

Although she initially studied sport and exercise science at Loughborough University, following the death of her mother Caitlin had a change of heart and decided to instead come to UCLan and pursue her dream of becoming a social worker. It was during her time at the University that Kaden became ill and sadly died of sepsis as a result of his arthritis.

Heartbroken, Caitlin knew she couldn't give up on her dream of being a social worker and in the January, following Kaden's death, she continued her studies and undertook the remainder of her work placement outside of class time to make up for the hours she had lost.

She said: "I used January 2017 as a turning point and a fresh start to get back on track; nothing will ever help me get over what happened to Kaden, but I had to be positive for my daughter and Kaden's sister, Taylor, who was so brave throughout.

"I'd like to thank my family, UCLan and the Fylde Coast Women's Aid who gave me the support I needed to get through an extremely difficult time in my life. I hope to go on and make a difference to those who need it the most."



"The help I received was absolutely brilliant. From accommodation, to security to library services and of course my academic tutors, I was given great support."

Robert Juan Gregg

Another UCLan student whose steely determination has never wavered is **Robert Juan Gregg**, from the Isle of Man. Robert, who is registered blind, got extra cheers from the crowd at his graduation ceremony when he was joined on stage by guide dog Angel, dressed in her own graduation gown. Robert studied counselling and psychotherapy because of a desire to "help and understand people," with plans to go on to study for a Masters in Integrative Psychotherapy.

The dedicated student came to UCLan after completing his A-Levels at the Royal National College for the Blind in Hereford. He was diagnosed with Retinitis Pigmentosa at the age of seven, identified as partially sighted when he was 13 and registered blind at 17-years-old. Despite facing obvious barriers, Robert said the University's disability support services made his time at the University run very smoothly.

"The help I received was absolutely brilliant," he said. "From accommodation, to security to library services and of course my academic tutors, I was given great support. What's more, the University was willing to listen and work with me when I suggested changes to make improvements. They got it spot on."

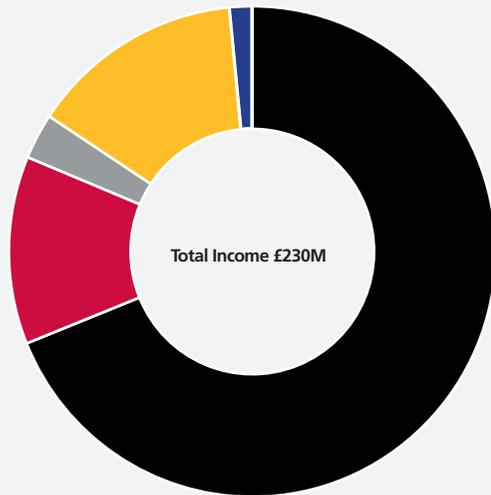
Robert's dog, labrador and golden retriever-cross, Angel, was with him during the last two years of his course after his last guide dog retired.

He added: "Angel supported me around campus by guiding me and making sure I was safe while we travelled the streets of Preston. It is my job to understand where everything is on campus, but her job is to ensure I don't walk into walls, bollards or people. She was well loved around the University, and one of my lecturers brought her carrots, her favourite treat, every week for our personal development module."

Facts and figures

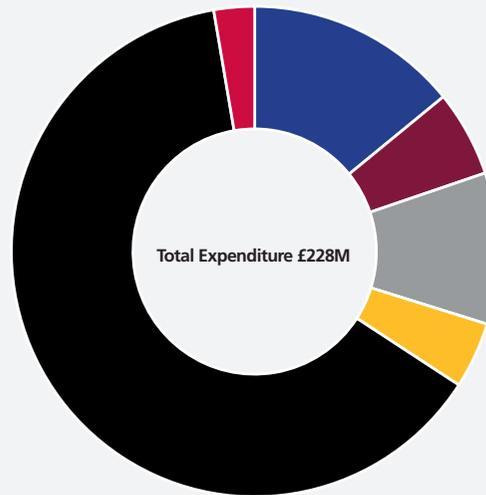
Financial results 2017/18

Breakdown of Income 2017/18



■ Tuition fees & education contracts	158.2
■ Funding body grants	28.5
■ Research grants	6.9
■ Other income	32.6
■ Investments	3.5
Total	229.7

Breakdown of Expenditure 2017/18



■ Support services	32.2
■ Other expenditure	13.0
■ Premises	10.0
■ Accommodation & commercial services	22.8
■ Core academic expenditure	144.1
■ Research expenditure	6.2
Total	228.3

Surplus for year £1.4m

Key Performance Indicators

0.62%
OPERATING SURPLUS AS % OF TOTAL INCOME

TARGET: 5% - 10%

0.0%
ANNUAL DEBT SERVICING COSTS AS % OF TURNOVER

MAXIMUM: 4%

60%
STAFF COSTS AS % OF TOTAL EXPENDITURE

MAXIMUM: ≤60%

Staff and research

Staff profile

Source: HESA Staff Record 2017/18

Gender	Academic Professional	Managers and Support Staff	Total
Female	653	755	1408
Male	686	433	1119
Total	1339	1188	2527



180,000 Alumni
256 Honorary Fellows
More than 100 Professors
More than 38,000 Staff and Students

Quality research, transdisciplinary impact and global reach



In the TOP 6% of worldwide universities
CWUR 2019-20

800+ research students enrolled currently




100+ Professors & Readers working at the university

800+ research or knowledge transfer-active members of staff



£

Annual total research income of £6.9 million



450 postgraduate research qualifications awarded over the last five years



One of the largest employers in Preston*

UCLan has Academic and Professional Staff based in

China • Qatar
Mauritius
Cyprus • Kenya
Nigeria • India

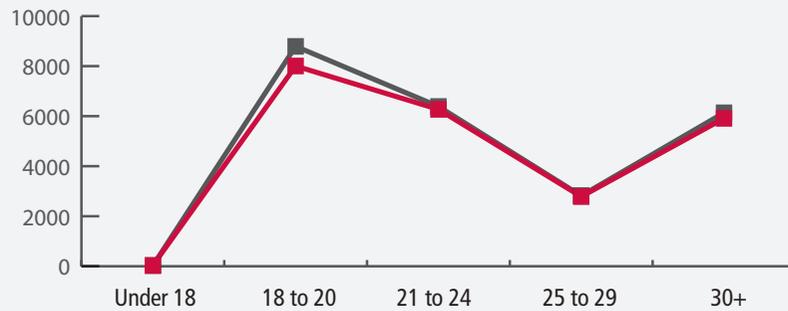
*2017 Regeneris report

Students and study

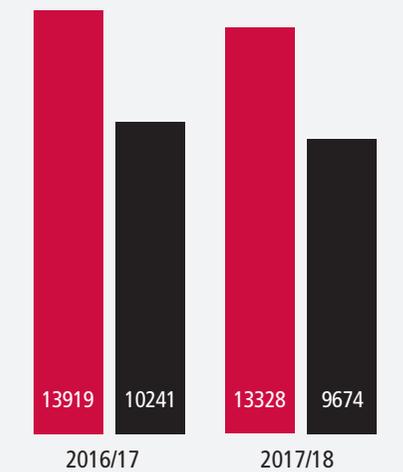
Total Student numbers



Student Age at 1st Sept



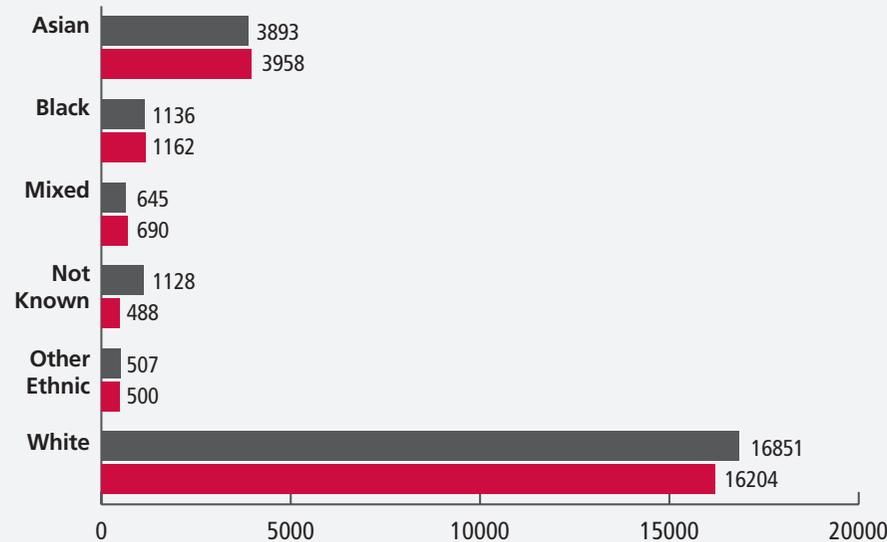
Gender



Over 69% of our students graduate with a First or 2:1 while **95.5%** of our graduates enter employment or further study within **6 months** of graduating

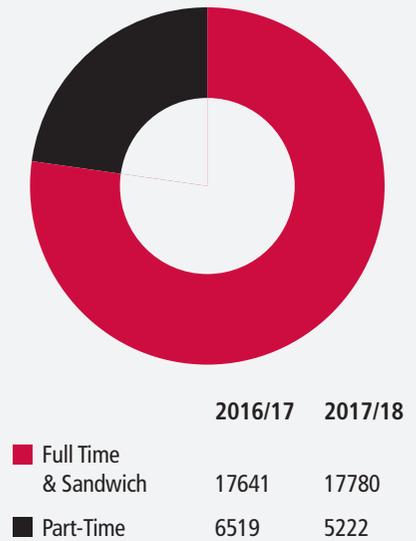
HESA Employment Performance Indicator 2018 (full-time, home-domiciled, first degree leavers).

Ethnic Group



3rd Largest University in the North West*

Mode of Study



*2017 Regeneris report

Participation

Under-represented groups in higher education
Percent of young full-time students from state schools or colleges - 2017/18

First Degree Entrants

UCLan **89.8%**

Total UK **98.1%**

Other Undergraduate Entrants

UCLan **96.6%**

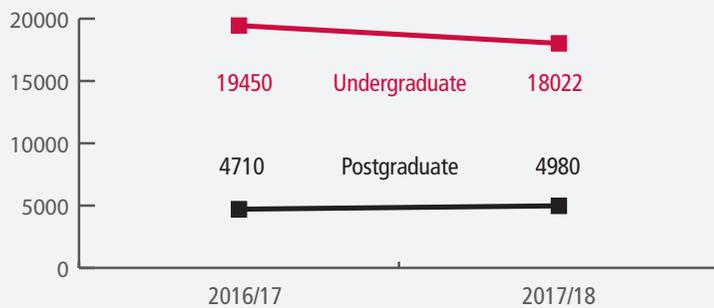
Total UK **99.5%**

All Undergraduate Entrants

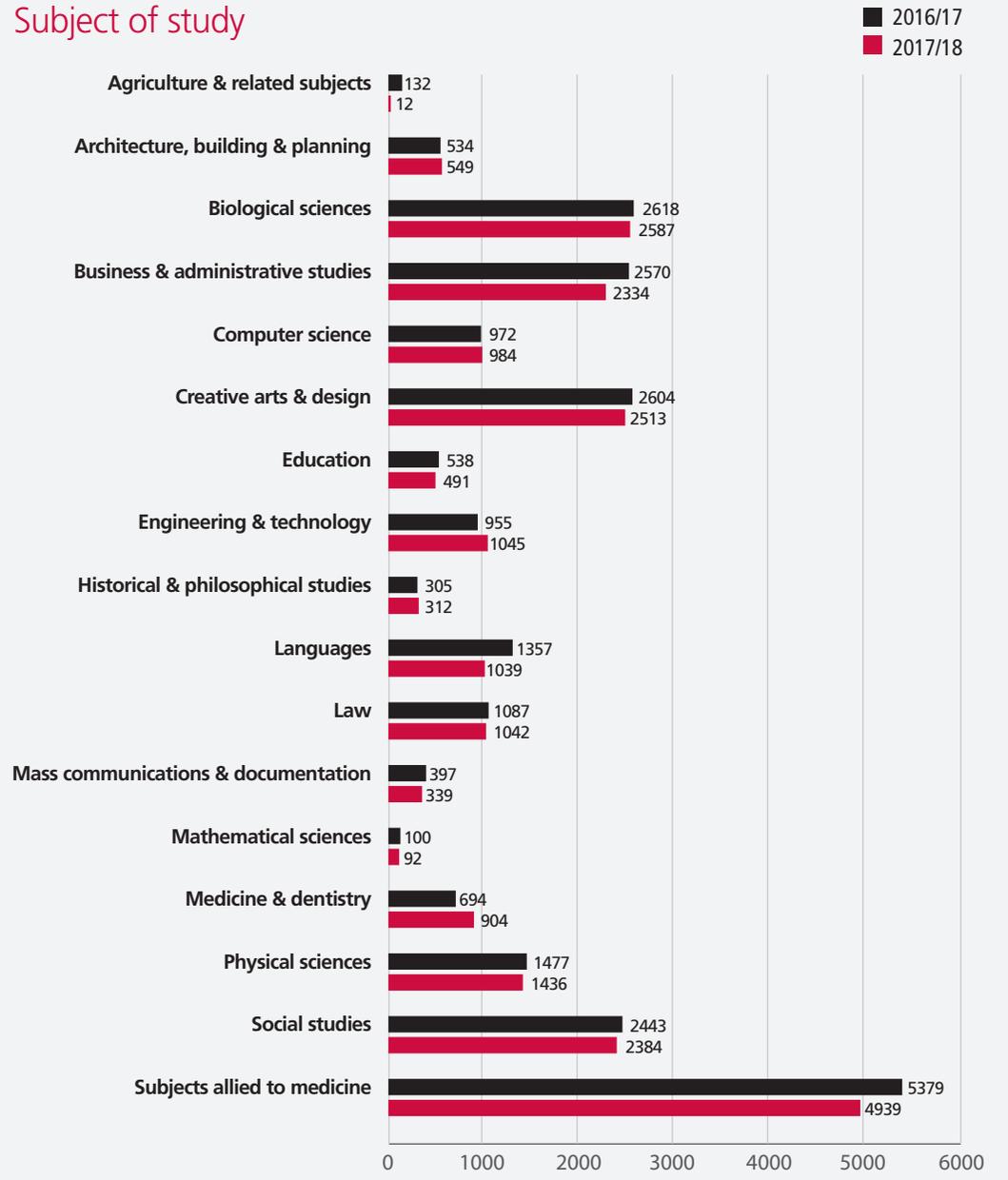
UCLan **90%**

Total UK **98.2%**

Level of study

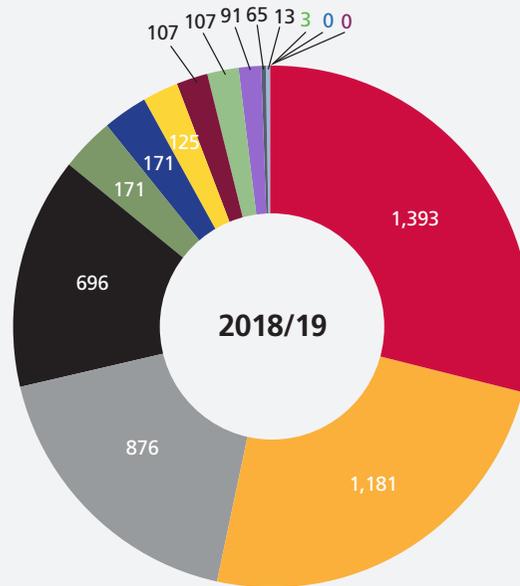
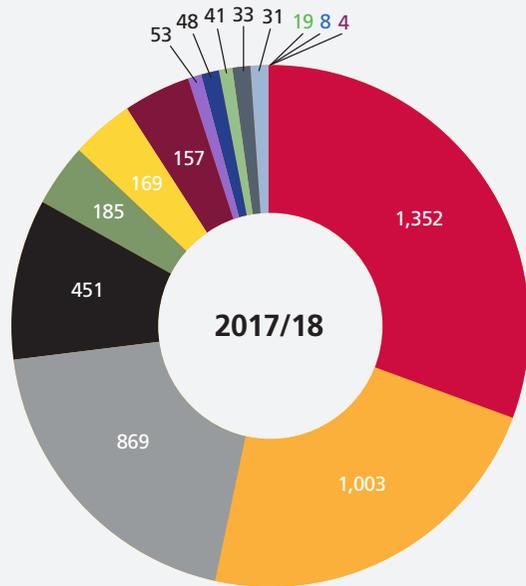


Subject of study



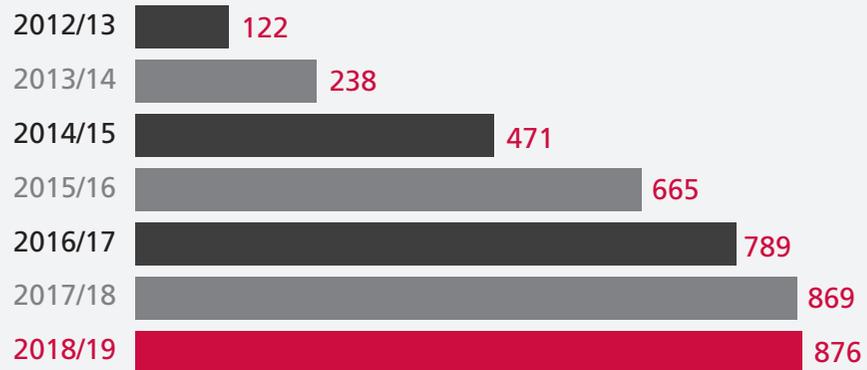
Source: HESA Student Record 2016/17 & 2017/18

Students Studying Overseas



- Hong Kong
- China
- Cyprus
- Oman
- Mauritius
- UK
- Greece
- Qatar
- Malaysia
- Singapore
- Sri Lanka
- Lithuania
- Indonesia
- Austria
- USA

UCLan Cyprus - Number of Students



£5.1m

Tuition fees
from students
studying a UCLan
degree overseas
2017/18

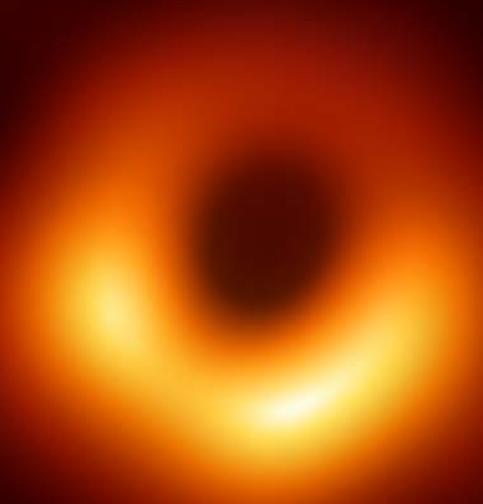
2,252

International students studying
on a UCLan UK campus



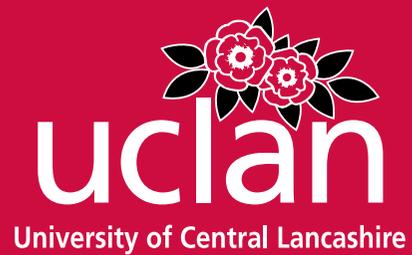
785

European students studying
on a UCLan UK campus



Out of this world discovery

During 2019 the University was involved in a worldwide collaborative research project which captured and released the first image of a supermassive black hole. UCLan's Professor Derek Ward-Thompson was among a global team of astrophysicists who spent years discovering the first direct visual evidence of the much-talked-about phenomenon which resides 55 million light-years from Earth and has a mass 6.5 billion times that of the Sun. Professor Ward-Thompson analysed data from the James Clerk Maxwell Telescope to help confirm the ground-breaking astronomical breakthrough.



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