

# **Annual Review** 2015/16

## An introduction from the President and Vice-Chancellor

The following are just a few highlights from the last 12 months to show how the innovative work taking place at the University of Leicester is making an impact locally, nationally and around the world.

As a discovery-led university, we are ever more focused on innovation. We are committed to making a real difference: the excellence of our research, teaching and enterprise is transforming people's lives.

This year I was proud to unveil a new Strategic Plan for our future. Our ambition is to create a university that represents a distinctive elite in the higher education sector. By being more adventurous, more ambitious and more insistent on the value of our distinctive qualities, we will have an even greater impact upon global scholarship and education. In every area, we are already developing bold initiatives that put our University at the forefront of change.

The plans have included launching one of the most flexible degree curriculums in the UK, and the creation of a digital campus. We also have ambitions to establish the National Space Park, which will be a home to world-class space and earth observation scientists, and will play a crucial role in attracting high-tech companies to the city of Leicester. You can read more about these plans in this publication.

You can also find out more about how our groundbreaking research is continuing to make a difference across the globe. Our academics are exploring new treatments for neurodegenerative diseases, pioneering new techniques for heart surgery, providing evidence for the existence of a new geological epoch and much more.

We remain committed to ensuring that we offer a fantastic student experience, invest in state-of-the-art facilities and develop a stimulating learning environment for all. We take great pride in the achievements of all of our staff and students and are delighted to share in some of their successes here.

2015/16 has been a momentous year in so many ways and I hope that in the next academic year we can continue to celebrate even more of our achievements in research and in developing our students.

PDB

Professor Paul Boyle President and Vice-Chancellor











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# A proud history

Envisaged as a living memorial to the local men who lost their lives in the First World War, the endowment for a University College for Leicestershire – later to become the University of Leicester – was established on Armistice Day in 1918.

Set up by local Leicester resident, Dr Astley Clarke, along with fellow doctor Frederick Bennett and other friends, the University was born out of a voluntary commitment for a people's university. Donations flooded in from individuals, local societies and companies, and by January 1920, more than £100,000 had been pledged – the equivalent of £16 million today.

Local cloth manufacturer Thomas Fielding Johnson purchased the Leicestershire and Rutland Lunatic Asylum, which had been used as a base hospital during the War, and gifted it to Leicester Council to set up a new University College and Grammar School. The old asylum building – the first University College building – was named in honour of Mr Fielding Johnson's generosity and now stands as the University's central administration building.

Students were first admitted to the College in 1921. In 1957, the College was granted

its Royal Charter, and has since then had the status of a University with the right to award its own degrees.

Nearly 100 years later, the University continues to honour those who served and died in the Great War. Our motto *Ut Vitam Habeant* – 'so that they may have life' – stands on every degree certificate we issue as a permanent reminder of the War and our origins.

At Leicester we believe high quality research and excellent teaching are not only complementary; they are inseparable. We are constantly finding new ways of being a leading university, and have done so ever since we were founded as Leicestershire and Rutland University College in 1921.

From WG Hoskins's seminal analysis of English history through place and people, to John Swales's definitive medical tome on the causes and treatment of high blood pressure; from the first British degree in Mass Communication, to the invention of genetic fingerprinting; from figurative sociology, to super-massive black holes; the University has contributed and continues to contribute to an extraordinary range of fields.





## 2015/16 achievements

9

of universities in the world. The University of Leicester is a leading university committed to international excellence through the creation of world-changing research and high quality, inspirational teaching

**93 8 % blue** 2016

of our students are in study or fulltime employment within six months

of our students are satisfied with their experience according to the National **Student Survey** 

for preparing our students for work according to the Association of Graduate Recruiters, for the second year in a row

E3.6m value of philanthropic funds raised

IN THE TOP

universities in the UK according to The Times/ Sunday Times Good University Guide 2016/17

# Discovery-led research



We deliver world-class research, changing the way we think about the past, present and future. Discovery is about imaginative new thinking, underpinning fundamental advances in our understanding of the world around us, helping us to apply our expertise to business and community needs, and delivering solutions to global challenges.

# A multidisciplinary future for research

## New research institutes build on established research strengths.

he discovery and identification of King Richard III has shown that we have a strong track record of multidisciplinary working. Following this successful model, the University has launched four new interdisciplinary research institutes which will enable us to build on this approach, acting as beacons of excellence across areas of strength.

The institutes will focus on our established research strengths in the following areas:

- Cultural and Media Economies
- Structural and Chemical Biology
- Space and Earth Observation Science
- Precision Medicine

"Our commitment to discovery is about imaginative new thinking and understanding of the world around us," explains President and Vice-Chancellor, Professor Paul Boyle CBE.

"These new institutes will bring a renewed focus on our strengths and will bring together colleagues from across the University to grapple with fundamental questions that arise at the intersection of different disciplines. They will drive our global research excellence and will be a key part of our commitment to pioneer a distinctive elite of research-intensive institutions."



## **CAMEO** Research Institute for Cultural and Media Economies

The focus of CAMEo is to provide new understandings of the cultural industries, the 'creative economy', the arts and media, cultural policy, consumer culture dynamics, and the mediation and representation of cultural and economic life.

Together with a wide range of partners, led by Professor Mark Banks of our School of Media, Communication and Sociology, CAMEo explores the diverse and complex ways in which cultural and media economies are being defined, valued, enacted, experienced and represented.

Learn more: www.le.ac.uk/cameo

## LISCB Leicester Institute of Structural and Chemical Biology

LISCB will bring together established strengths in structural biology, chemical biology and singlemolecule research. The new Institute will take advantage of synergies in research technologies and approaches to deliver major advances in both fundamental and translational research.

Professor John Schwabe of our Department of Molecular and Cell Biology is the Director of LISCB which will strengthen cross-college interactions. As well as embracing new cuttingedge technologies and novel chemical biology approaches, the Institute will maximise future success and impact. The Institute will also reinforce and enhance the visibility of Leicester in this area and build upon our national and international reputation for excellence in structural and chemical biology.

Learn more: www.le.ac.uk/liscb



## **LISEO**

#### Leicester Institute for Space and Earth Observation

LISEO will bring all of our space research and related activities under a single Institute, focusing on space and earth observation missions, instruments, and the exploitation of these. To be located on the planned National Space Park, LISEO is led by Professor Martin Barstow, Pro-Vice-Chancellor Strategic Science Projects. The Institute will be situated alongside a range of industrial partners to develop new approaches to innovation in space research and make a major contribution to economic growth, particularly in the space applications landscape.

The timely creation of LISEO will also support the Government's aspirations for the space sector, having recently identified space as one of the eight great technologies and a cross-cutting enabler of growth.

Learn more: www.le.ac.uk/liseo

#### **National Space Park**

We unveiled ambitious plans earlier this year to develop a National Space Park to boost innovation, growth, jobs, skills and training in the sector.

Working with local, national and international partners, our aim is for the National Space Park to be recognised internationally as the go-to hub for space and space-enabled data industries, and for excellence in relevant skills training.

At its heart will be a centre for space research, education and training, a vibrant community for large and small businesses and an open-innovation environment with state-of-the-art laboratories and access to technical expertise and business support.

Learn more: www.le.ac.uk/spacepark





## **LPMI**

Leicester Precision Medicine Institute

Future treatment of human disease will increasingly move from a 'one size fits all' approach to one of tailoring the treatment to the individual patient. Considering disease at a personal level allows for accurate identification of risk, and for tailored (or precision) therapies where patient-specific responses are monitored and treatments refined to deliver optimal efficacy with minimal toxicity or adverse reaction.

A joint venture between our University and University Hospitals of Leicester NHS Trust, LPMI led by Professor Martin Tobin of our Department of Health Sciences – will coalesce and align the research missions of both organisations. This Centre of Excellence will develop, evaluate, and implement treatments based on individual patient differences, to provide better healthcare that recognises the ethnic diversity of our population.

Learn more: www.le.ac.uk/lpmi

## Protecting children from the devastation of war and violence

Research shows devastating impact of violence and conflict on child mental health. Professor Panos Vostanis from our Department of Neuroscience, Psychology and Behaviour has observed how children are affected both directly through witnessing violence and experiencing loss, and indirectly due to the impaired ability of parents to protect their children and the disruption of vital support networks.

"In any society, about one in 10 children and young people up to the age of 18 years suffer from mental health problems – emotional, behavioural, developmental problems or mental illness," says Panos. "These rates can rise up to 40%, or even higher, if children have experienced traumatic events such as abuse and neglect, war, being raised in care, or living on the streets."

In 2015, Panos launched the global World Awareness for Children in Trauma (WACIT) campaign. Its vision is to raise awareness on child mental health worldwide, and to establish ways of helping children who have suffered trauma and live in the most adverse life circumstances.

The WACIT programme is at the centre of our University's official development assistance (ODA)-related research bids, part of the government's focus to improve the economies of low-middle income countries and currently involves collaboration with eight international centres.

"Many countries do not have child mental health policies or services; whilst others do not have legal frameworks on how to protect children most in need. No single country can provide all answers and services required, and so an international perspective is central to our child mental health research strategy," he explains.

Over the past two years, Panos has worked with volunteers and staff of non-governmental

organisations (NGOs), orphanages and other specialist centres in eight countries to develop a standardised approach which can be used with children who may have limited, or no, access to specialised trauma services. This new model has six levels:

- Safety and child protection
- Nurturing environments
- Building resilience through schools and communities
- Applying the principles of therapeutic approaches in schools and other group settings
- Trauma-focused interventions adapted for children
- Use of limited mental health resources

In November, Panos launched an international Child Mental Health campaign with State Islamic University Jakarta. The programme focuses on promoting child wellbeing by integrating cultural diversity in schools, clinical, and community settings. A training model was also implemented with volunteers and staff of NGOs in Jakarta to demonstrate how they can help children who have experienced trauma and how to establish sustainable support networks.

More recently, he has visited six continents in six weeks to further help with the development of a model to help children who have suffered from trauma and adversity. The objective of his tour was to deliver child trauma workshops to promote awareness, safety and resilience-building for children.

During this trip, Panos visited the following eight countries: Greece, Turkey, Indonesia, Australia, USA, Brazil, Kenya and Tanzania where he also participated in child-centred activities including sports and arts events.

Learn more: www.wacit.org

## First heart operations performed using new method



The UK's first heart operations using a novel software platform to pinpoint the source of the heart condition have been carried out in Leicester as a result of research from our University.

This new method has been developed to treat atrial fibrillation (AF), the commonest heart rhythm disturbance, affecting more than 1 million people in the UK. AF causes the upper chambers of the heart (atria) to beat very fast and irregularly due to chaotic electrical activity, meaning the atria do not beat in an organised way and pump less efficiently.

Professor André Ng, Professor of Cardiac Electrophysiology at our University and Consultant Cardiologist and Electrophysiologist at Leicester's Hospitals, has carried out three operations using this approach since November 2015. All three patients have now returned home following the operations which were completed successfully.

"We are very pleased to have used this new system at Leicester for the first time in the UK," says André.

"We managed to use the new system to analyse the electrical activity during AF in our patients and we are very pleased that AF stopped when we did the ablation (burn treatment) and the patients returned to normal rhythm, which was the best possible result and desired procedural outcome for our patients."

## Mission to understand largest planet in our solar system

The University of Leicester is home to the only formal UK science lead for the Juno mission, NASA's programme to study our solar system's largest planet, Jupiter. Launched on 5 August 2011, Juno arrived at Jupiter on 5 July 2016 where it has since slipped into orbit around the giant planet to begin its scientific mission.

Professor Stan Cowley, a Co-Investigator of the NASA mission, and Professor Emma Bunce of our Department of Physics and Astronomy were the first to construct a mathematical model showing how Jupiter's main auroral oval could be generated. This mission will, for the first time, test their theory.

Planetary scientists and astronomers from our University will use data collected from the

mission to study three aspects of the gas giant: its magnetosphere, the dynamic atmosphere, and its polar auroras.

The solar-powered spacecraft will embark on a series of orbits around the planet, taking it for the first time directly above the planet's poles and then skimming within 5,000 kilometres of the cloud tops. These close passes will permit precise measurements of Jupiter's gravity and magnetic fields, probing its inner structure and density, as well as our first close-in views of the polar region.

"Juno aims to go right back to the beginning, to understand how the formation and evolution of Jupiter might have influenced the development of our planetary system," explains Dr Leigh Fletcher of our Department of Physics and Astronomy. Our scientists are also taking advantage of this mission to train the Earth's most famous telescopes on Jupiter. Dr Jonathan Nichols of our Department of Physics and Astronomy was able to observe Jupiter's spectacular aurora using the Hubble Space Telescope.

"The auroras that we captured were some of the most active and powerful ever seen, as if the planet was throwing a fireworks party for the arrival of Juno," says Jonathan.

These glowing emissions cover an area more than three times larger than the Earth over the poles of the giant planet, and are more than 100 times brighter than the Earth's own northern lights, providing a glimpse into the behaviour of Jupiter's magnetic field.

## Bacteriophage cocktail shows significant promise



A new study led by Professor Martha Clokie of our Department of Infection, Immunity and Inflammation has confirmed the therapeutic potential of bacteriophage combinations to treat highly infectious bacteria *Clostridium difficile* infections (CDI).

Bacteriophages are naturally occurring viruses that are highly specific for the bacterial hosts they infect. They are unaffected by antibiotic resistance and are able to penetrate biofilms to produce strong local therapeutic effects.

CDI is responsible for approximately 39% of antibiotic-associated diarrhoea cases in the Western world, causing death in about 10% of patients. The main obstacles to preventing CDI are the existence of diverse *C. difficile* strains that are naturally resistant to most antibiotics, and the resistant nature of the *C. difficile* spores.

In research funded by AmpliPhi Biosciences and published in *Antimicrobial Agents* 

and Chemotherapy, and in Frontiers of Microbiology, the team has demonstrated that bacteriophage combinations significantly reduce growth of C. difficile cells and proliferation in complex models. They have shown the combinations effectively kill the most prevalent and severe strains of C. difficile and that the phage combinations can completely eradicate bacteria when they are grown in culture.

"Our data supports the therapeutic potential of phage combinations to treat *C. difficile* infections," says Martha. "In particular, combinations of phages optimised in the laboratory setting were shown to be effective in the treatment of *C. difficile* in complex biofilm models and in animals. Further refinements to our phage cocktails are now being undertaken in order to maximise phage efficacy, and to target the most dominant *C. difficile* variants."

## Bronze Age barrow and Anglo-Saxon cemetery discovered

A team of archaeologists from our University has excavated a Bronze Age barrow and Anglo-Saxon cemetery under former allotments at Rothley in Leicestershire, in research funded by Persimmon Homes.

As part of an ongoing project to investigate how different generations have re-used ancient sacred places, the team from the University of Leicester Archaeological Services (ULAS), led by Dr Gavin Speed, has uncovered exciting new evidence about Rothley's ancient past dating back some 6,000 years.

The Bronze Age barrow measures more than 30 metres in diameter and is believed to date back to 2000-700 BC. The earth mound did not survive subsequent generations of ploughing, but the surrounding near-circular ditch was still present with cremation burials close to the ditch edge. Much later in the early Anglo-Saxon period (AD 410-700), the barrow became the focus for a small inhumation cemetery.

"By the Iron Age, the barrow had partly eroded and its ditches had silted up, but much of the mound was likely still upstanding, making it a visible landmark in the local landscape even if its original purpose and meaning had changed," explains Gavin.

Re-use of round barrows during the Anglo-Saxon period is a fairly common occurrence in England, however, there are very few instances in Leicestershire. This discovery at Rothley uncovered at least 12 burials and is one of the largest confirmed examples to be excavated.

# Dawn of the Anthropocene

Hard evidence shows humans have triggered a new geological epoch.

verwhelming evidence for a new geological epoch which marks the impact of human activity on the Earth has been presented by an international group of geoscientists including Professors Jan Zalasiewicz and Mark Williams of our Department of Geology and Dr Matt Edgeworth from our School of Archaeology and Ancient History.

The Anthropocene was first coined in the year 2000 to denote the present age, where humans are dramatically altering many geologically important conditions. It is argued to have started in the mid-20<sup>th</sup> century, marked by the spread of materials such as aluminium, concrete, plastic, fly ash and the fallout from nuclear testing across the planet.

The study, co-authored by 24 members of the Anthropocene Working Group of which Jan is Chair, shows that humans have changed the Earth system. The change has been sufficient to produce a range of signals in sediments and ice, and these are sufficiently distinctive to justify recognition of the Anthropocene Epoch in the Geological Time Scale.

"Humans have long affected the environment, but recently there has been a rapid global spread of novel materials including aluminium, concrete and plastics, which are leaving their mark in sediments," explains Professor Colin Waters of the British Geological Survey, who was this year awarded an honorary Chair in our Department of Geology.

Whilst not an officially recognised term, the Anthropocene is believed to follow the Holocene epoch of the last 11,700 years, which has been a time during which human societies have advanced by gradually domesticating the land to increase food production, built urban settlements and became proficient at developing the water, mineral and energy resources of the planet.

The group has also suggested that human impact during this new period has created a 'plastic planet' which is having lasting effects on land and oceans. Because they are inert and hard to degrade, the group has found evidence that the plastics littering the landscape often end up in the sea, where they may be consumed by, and kill, plankton, fish and seabirds, before finally being incorporated in marine sediments – the strata of the future.

"There is one more dimension to this," adds Mark. "The profoundly changed patterns of fauna and flora caused by humans trans-locating organisms around the planet – everything from rabbits to rats and salmon to shellfish. That pattern has been unfolding for centuries, but has accelerated in the past 100 years."

"All of this shows that there is an underlying reality to the Anthropocene concept," says Jan who, alongside the Working Group, is gathering more evidence to help inform recommendations on whether this new time unit should be formalised, and if so, how it might be defined and characterised.

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**Professor Colin Waters** 

## Brief exchanges

#### October

Mapping project reveals 50 years of land use change along the coast

Researchers in our Department of Geography have completed a pioneering mapping project to understand how land use along the coast has changed since 1965.

Commissioned by the National Trust, our researchers found that three quarters of the coast of England, Wales and Northern Ireland remains undeveloped, providing an important resource for people and nature. They also



noticed a 42% increase in urban and built environments over the last 50 years and an increase of industrial areas along the coast by 39%.

### May

#### 'Sniffing' out fruit ripeness

Scientists from our University have, for the first time, identified a way to 'sniff' the ripeness of mangoes, highlighting the unique chemical signature of ripening for the fruit.

"Mangoes are one of the most important and popular tropical fruits, with the UK importing in excess of 60,000 tonnes. It is really important for people to tell how ripe fruit is without having to taste it," says lead researcher Professor Paul Monks, Pro-Vice-Chancellor and Head of the College of Science and Engineering.

"We used a novel fast-sensitive 'electronic-nose' for sniffing volatile compounds from the ripening fruit. In particular, the work showed an increase in ester compounds – the smell of pear drops – in over-ripe fruit."

### April

## Advance in fight against Parkinson's and Alzheimer's

A five-year study by an international team, led by researchers from our University, has found a way of 'reversing' symptoms of neurodegenerative diseases such as Parkinson's and Alzheimer's – using fruit flies as test subjects.

Led by Dr Carlo Breda and Professor Flaviano Giorgini of our Department of Genetics, the research has demonstrated that genetic and pharmacological



approaches can be used to lower levels of toxic metabolites in the nervous system, and thereby alleviate several symptoms of neurodegeneration.

#### New research reveals why drivers hit-and-run

A new report by Dr Matt Hopkins and Sally Chivers from our Department of Criminology has started to identify the reasons why motorists hit-and-run. Survey responses from drivers convicted of hit-and-run offences revealed the following:

- 50% did not think the accident was serious enough to report
- 45% would have stopped and reported the incident had they known they were committing an offence by leaving
- 16 to 34 year olds were more likely to leave the scene because they were not insured, they had been drinking, were scared of the consequences, or they panicked
- Over 50% of respondents were traced through witnesses of the accident



#### Major boost for University spin-out company Haemostatix

UK-based Ergomed plc, a company specialising in services to the pharmaceutical industry and new drug development, has acquired Haemostatix Ltd, originally a University of Leicester spin-out company. The move signals further confidence in the technologies developed by Haemostatix including an innovative clotting agent to help control bleeding during surgery.

Nottingham-based Haemostatix, which started life at our University, is developing a new class of topical clotting agents. The technology is based on a novel class of molecule that binds



directly to fibrinogen to promote haemostatis. Ergomed has acquired 100% of the issued share capital of Haemostatix for an initial consideration of £8 million, with contingent consideration of a further £20 million dependent on future development and sales.

## July

#### **Celebrating 50 years of pioneering research**

In 1966, our University broke new ground by identifying mass communications as a subject worthy of academic study with the founding of the Centre for Mass Communication by Professor James Halloran. Twelve years later, the Centre launched Britain's first taught degree in communication studies, the MA in Mass Communication, which continues to attract a high number of students today.

Fast forward to 2016, and we are delighted to celebrate the 50<sup>th</sup> anniversary of the first Centre of its kind. Coinciding with this milestone, the department hosted the 2016 conference of the International Association for Media and Communication Research (IAMCR) in July. IAMCR is the preeminent worldwide professional organisation in the field of media and communication research and this was the first time the event took place in Leicester since 1976.

#### Pokémon Go could ease Type 2 diabetes burden

Leading diabetes researchers from our University believe the smartphone craze *Pokémon Go* could be an 'innovative solution' to rising obesity levels and chronic disease.

Millions of people around the world have started to play the virtual reality treasure hunt where players must walk to places within the real world and catch, train and battle creatures which appear on their mobile phone screens.



"If there is something out there which is getting people off the sofa and pounding the streets, then this game could be an innovative solution for rising obesity levels," says Dr Tom Yates of the Leicester Diabetes Centre. "Walking is hugely underrated and yet it is an easy and accessible way to get active and help maintain a healthy body."

# Discovery-led learning



We take great pride in the strength of our learning culture and in the passion for excellence that informs both our teaching and our support for students. An education at the **University of Leicester** - undergraduate, postgraduate, oncampus, overseas or as part of continuing professional development is enriching and transforming.

# Innovative approach to preparing students for work recognised

#### Career Development Service receives national award for second year running.

he Association of Graduate Recruiters (AGR) has recognised our Career Development Service with the award for 'Preparation For Work by Higher Education – Single Initiative' for a two-day residential experience designed to be an adrenaline-fueled learning experience for students wanting to apply for roles within the Top 100 graduate recruiters.

Smart 48 is an initiative designed by The Smarty Train and delivered in partnership with our University, which provides specially selected students with the opportunity to take part in a career development programme like no other. Over a period of 48 hours, students are exposed to a number of intensive challenges where they put themselves to the test.

"The skills and experience gained have been invaluable and will benefit me greatly in the future," explains one student who took part.

The AGR is an employer-led organisation and the UK's leading voice on graduate recruitment and development. The award follows last year's success which recognised the Service's overall strategy.

"Our University is passionate about providing a distinctive and transformative experience that supports and empowers our students to enjoy bright futures as graduates and alumni. This prestigious award is a wonderful recognition of this commitment and something that our University can be proud of," says Richard Wilcock, Deputy Director of the Career Development Service.

Our dedicated and experienced team work with employers to understand their needs and how the University can tailor our offering to students to support them to the best we can throughout their time with us and after they graduate.

Each year the Service runs an annual Festival of Careers, which for the 2015/16 academic year was even bigger than before with 116 graduate employers visiting campus over the five days of the Festival, and more than 2,000 students taking part.

The Festival of Careers takes the idea of a traditional careers fair and builds it into a week-long extravaganza of workshops, activities, events and exhibitions that ensure all of our students can access something relevant to their future ambition.

From global corporations to SMEs, local charities to voluntary organisations, the Festival had it all. In addition to the main fairs, there were also 60 fringe events in the form of shorter career or skills talks covering a diverse range of areas – from broadcast journalism to archaeology, PR to banking. More than 500 students took part in these fringe activities, hearing from employers, pitching their business ideas, and developing their job hunting skills. Our 'No-prep, no-entry' policy continued to enable students to get the most from meeting employers. All students wishing to participate must complete preparation prior to attending so that they are able to ask the right questions to the right people and really capitalise on the opportunity. Employers continue to commend the University for this innovative approach, with Sky commenting: "Great conversations with students with evident prep."

"The Festival is a great way to start the year for our students. Working collaboratively with all departments and services over the rest of the year, we continue to provide our students with opportunities to build the skills and experience they need to achieve a lifetime of career success," adds Rob Fryer, Director of the Career Development Service.

## Students can now study diabetes from a distance

We are proud to be one of the biggest suppliers of higher education distance learning courses in the UK with more than 5,000 students choosing to study with us part-time or from a distance. Our courses are designed to give our students the flexibility to study from any location within a structured and supportive framework, allowing participants to combine achieving a qualification with work or family commitments.

This year we announced the opportunity to complete prestigious courses in diabetes from home or work. Facilitated by the Leicester Diabetes Centre, and launching in October 2016, a new distance learning programme has been developed to include distance learning PGCert/PGDip/MSc in diabetes.

"These courses increase knowledge, skills and confidence in diabetes care and the introduction of the Distance Learning Programme means that people can enjoy greater flexibility of study," explain Professor Heather Daly and Dr David Webb, Programme Leads.

We are also continuing to deliver an exciting programme of Massive Open Online Courses (MOOCs), offering learners around the world even greater access to free, high quality courses. MOOCs are self-directed short courses that are delivered online, meaning students can follow the course materials, complete the readings and assessments, and get help from a large community of fellow learners through online forums.

During 2015/16, almost 35,000 people enrolled onto one of our MOOCs, including Behind the Scenes at the 21<sup>st</sup> Century Museum, Forensic Science and Criminal Justice, England in the Time of King Richard III and Real World Calculus.

Learn more: le.ac.uk/student-life/distance-learners

## Reaching out to mature students

Our dedicated post for mature student outreach has been in place for approximately 18 months which has led to a number of firsts for the University in this area.

Outreach and in-reach programmes for mature students have been developed based on research findings, liaising with other universities with established mature student support, and listening to student feedback and suggestions. The aim is to encourage a community of mature students at our University that support each other and provide a sense of belonging.

As part of the programmes, we are providing information, advice and guidance sessions to Access to Higher Education students in local colleges to help them prepare for university. This year we have also included a new e-mentoring programme where students can get support and advice from current students during their studies and a Mature Student Welcome Event to help with the transition from college, family life or work to university.



## Students measure impact of Leicester City's success

Leicester City Football Club's historic season and eventual victory of the 2015/16 Premier League sent shockwaves, quite literally, through the city of Leicester.

Students from our Department of Geology recorded large seismic signals detected by earthquake monitoring equipment installed at Hazel Community Primary School near the King Power Stadium.

Known as 'Vardyquakes' after the team's leading goal scorer, the tremors have been attributed to sudden energy releases made by Foxes fans when their team scored a goal at home matches.

Working with Paul Denton, a seismologist from the British Geological Survey, the project, which involved 20 students studying Geology and Geophysics, began as an outreach project. The students installed the earthquake monitoring equipment to enable them to detect, record and calculate the magnitudes of seismic signals coming from earthquakes around the world.

It was during Leicester's final home game of the season against Everton that fans were recorded making the biggest earth tremors at the ground. Goals by both Jamie Vardy and Andy King notched up quakes of 0.4 magnitude.

"It's truly remarkable to see earthquakes of this size coming from the stadium," explains firstyear Geology student, Richard Hoyle. "The fans must have been really energised for their team to end the league on a high and we see this with the seismic waves they produced."



## Celebrating postgraduate research

Each year we are delighted to display to the outside world the impressive and groundbreaking research done by our postgraduate researchers in our annual Festival of Postgraduate Research.

This year, 55 of our best research students, selected competitively from our 1,700 member postgraduate research community, presented their cutting-edge research to academics, employers and members of the public in the form of a poster.

Projects on display included research into youth unemployment in the East Midlands and unemployment amongst the elderly and unskilled, how manipulations in genetic 'switches' can help prevent heart disease, creating new algorithms for fingerprint identification and a re-evaluation of 'baby farming' during the Victorian period.

"The Festival is a celebration of the exciting research conducted by our postgraduate researchers. Every year these researchers impress the judges and the public with the diversity of their research and the interesting approaches taken in communicating their work to an audience of non-specialists. It is clear that very high standards are achieved by our postgraduate research community and I am looking forward to what will be displayed at the 2017 festival," says Professor Helen Atkinson CBE, Graduate Dean.

For those taking part, the Festival, which was hosted by the Graduate School for the 12<sup>th</sup> time this year, offered an opportunity to meet employers and others in their fields and to develop their profiles as researchers.

The Festival concluded with an awards ceremony, with winners for the best poster presentation in four broad discipline areas, a number of specialist prizes, the Graduate Dean's prize for best overall presentation, as well as prizes for the winners of this year's Three-Minute Thesis (3MT) and PhDepictions competitions.

## New peer mentoring scheme launched

## Initiative introduced to help first year students settle into university life.

n partnership with the Students' Union, we are delighted to have launched a peer mentoring scheme where all first year undergraduates starting in September 2016 will be given the opportunity to have a second or third year undergraduate student in their department as a mentor.

Aimed to enhance the student experience for both the mentor and mentee, it is hoped that this scheme will build positive relationships and provide reciprocal support for all involved.

"This is a really good initiative because students will have immediate support at the University without even needing to look for it," says Alex Mitchell, Students' Union Education Officer. "It will also help students to feel more connected to university life and the campus both as mentors and mentees."

The mentors are not academic, purely pastoral, answering questions about student life and giving advice on the support services available. They will be there to provide a friendly ear and listen to their mentees when they feel they have an issue or a problem.

All mentors will receive training and have been tasked to share their tips about Leicester, the University, student life and their department – all to help make the transition from school to university life even easier for all of our first year undergraduates.

"Because the mentors are there to answer any questions about being at our University, the mentee has an automatic point of contact for any problem they might face meaning nobody has to struggle on their own," adds Harriet Smailes, Students' Union Wellbeing Officer.

"The mentors receive high quality training from the Students' Union Training Team meaning they are comfortable signposting their mentees to the help and support they need, as well as making sure to look after themselves too, so it's a win-win!"

Learn more: peermentoring.su.le.ac.uk

## Reflections on a year abroad

We are proud to encourage all staff and students to seek out opportunities and interactions that build their international experience, cultural awareness and global perspective. This is why we have the University of Leicester Study Abroad Exchange Programme where students can choose to experience one semester or full year at one of our partner international universities.



English and History student Khadija spent her year abroad in Strasbourg, France, and here she shares with us a few things she learned during the experience:

## Confidence and independence

After living in a foreign country by yourself, having to open a bank account in a language you barely speak, your confidence definitely grows. The more time I spent abroad, the more

I realised that studying was only one part of it.



## Bonjour

## To speak French

Before I moved to Strasbourg, I had never spoken French with a genuine French person that wasn't my French teacher. As you can imagine, I was shy at first, but now I can understand, read and write French, and if I force myself, I can speak it too!

## About myself

My time abroad has taught me about what I want in friendships as I have made some great friends. I want to be able to continue to discuss politics and our purpose on earth like I have with my French friends, not just who is dating who. I mean, I don't mind discussing that too, but that shouldn't be all we discuss as friends.

## About the French monarchy

I was very proud of myself that after just the first semester in Strasbourg, I was able to visit the Museum of Lorraine in Nancy and spend two hours discussing French kings and their various laws and edicts with my friends.



## How to make a dream come true

It has always been my dream to do a wine tour in France and so I was delighted when the Erasmus Society organised

a trip for about 90 of us. I don't remember the specifics of the wines because I am not a wine expert, but that was exactly why I chose to study abroad – to have cultural experiences, meet new people, and to have fun.



Learn more about Khadija's time abroad on her student blog: **studentblogs.le.ac.uk** 

## Building lifelong relationships

With more than 170,000 members in our global alumni community, this ever-growing network offers the chance for our University to build a relationship for life with all of our former students.

Graduates automatically join our Alumni Association on their graduation day. The Association enables access to a wide-ranging group of graduates, meaning that alumni have access to a terrific resource which they can call upon at any time. Whether they are seeking careers advice, opportunities, support and more, our alumni are there to help one another with the support of our Development and Alumni Relations Office.

Alumni are able to keep up-to-date with University and alumni news via our annual alumni magazine, quarterly e-newsletter, and alumni social media channels. Our programme of alumni events is also a popular way for graduates to reconnect, from the annual Alumni Black Tie Dinner in London, to our Leicester on Tour networking events in cities throughout the UK, and our reunion events for alumni and their families, we love to remain connected with our graduates.

We are immensely proud of the successes of all of our graduates who have achieved many wonderful and inspirational accomplishments since leaving our University. Each year, the Standing Committee of the Alumni Association is honoured to recognise the exceptional work of one such alumnus or alumna, through the presentation of the Outstanding Alumni Achievement Award.

In recognition of his courage, fortitude and selflessness, Dr Mark Sims, a junior doctor who graduated from our University in 2013 with an MBChB in Medicine was awarded this coveted prize in 2016. Mark was sadly diagnosed with stage four malignant melanoma in 2015. Almost immediately after his diagnosis, Mark started chronicling his story on his blog, *Wrestling Melanoma*, and to date has raised more than £100,000 for Cancer Research UK to fund vital research.

Mark passed away surrounded by his family and fiancée on 19 January 2017.

Learn more: www.le.ac.uk/alumni



## Overseas venture for students on mental health placement

Four students from our Department of Neuroscience, Psychology and Behaviour have gained crucial work experience by travelling to the island of Sri Lanka to participate in a mental health placement.

For a number of weeks, they shared their skills at psychiatric hospitals and ran therapeutic activity sessions at centres for individuals with various needs.

The placement was organised by SLV, a volunteer organisation, and the students

were supported by Sri Lankan mental health professionals to help equip them with the skills to work sensitively within the Sri Lankan culture, and in thoroughly under-resourced facilities and challenging environments.

"Being an SLV volunteer was one of the best experiences I have ever had," says student Katherine Stroud. "I gained an immense amount of confidence and an eye opening first person account of mental health care in Sri Lanka." During their time volunteering, the students lived with a local family and were able to fully integrate themselves into Sri Lankan life and culture.

"Just like many Psychology graduates hoping to explore a career in the field, I found it hard to gain experience in the mental health sector in the UK," adds student Lauren Lovejoy. "It was a fantastic opportunity to challenge myself, gain new skills and meet like-minded people."

## Brief exchanges

#### August

#### BBC's The Sky at Night comes to campus

A BBC film crew visited the University to film their popular astronomy documentary programme, *The Sky at Night*, which was broadcast on Sunday 9 August on BBC4. In the episode, called 'Cosmic Lights', *The Sky at Night* team looked at cosmic explosions and gamma ray bursts.

Professor Richard Willingale and Dr Kim Page of our Department of Physics and Astronomy featured in the 30 minute episode and Dr Gabrielle Provan also demonstrated the University's Planeterrella, a polar light simulator which consists of a small vacuum chamber within which auroral lights are created around magnetic spheres, and visualise cosmic phenomena.

#### **Students perform at Edinburgh Festival Fringe**

A Vatican murder mystery comedy, *Cardinal Sin*, produced by five young writers from our University, was showcased at the 2016 Edinburgh Festival Fringe.

Produced by student Callum Humphreys and directed by Benjamin Alborough along with three other playwrights from the University, *Cardinal Sin* blends Catholicism, bees and the Wu-Tang Clan. In the hour-long comedy set in the Sistine Chapel, a murder takes place in the Papal Conclave and it's up to those already there to solve it.





#### January

#### **Japanese Princess graduates from our University**

Her Imperial Highness Princess Mako of Akishino has achieved her Master's degree in Art Museum and Gallery Studies after a year in the department and studying on campus. Speaking at a press opportunity marking the end of her year at our University, Princess Mako said in Japanese that her time at the University of Leicester had been 'a wonderful experience'.

Princess Mako is a member of the Japanese Imperial Family. She is the eldest daughter of Their Imperial Highnesses Prince and Princess of Akishino, and the first-born granddaughter of Their Majesties Emperor Akihito and Empress Michiko.



## April

#### Salters' Festival of Chemistry returns to our University

Sixty-four students from 16 schools in the local area aged 11-13 visited our University for an exciting day of science as part of the annual Salters' Festival of Chemistry. The Salters' Festivals of Chemistry are an initiative of The Salters' Institute, with 49 Festivals taking place each year at Universities and Colleges throughout the UK and the Republic of Ireland.

During the morning, teams of four completed a competitive, hands-on, practical activity entitled 'The Salters' Challenge – Murder comes to Salterstown', in which they were invited to use their analytical chemistry skills. In the afternoon, they competed in 'University Challenge' where they were required to solve a 'mess' in the teaching labs where several unlabelled samples were found. This was followed by a fun lecture delivered by Dr Richard Blackburn, of our Department of Chemistry, who took the students on a chemical tour of the elements with many bangs, flashes and colours.



#### Santander Scholarships awarded

We have been delighted to continue to award Santander Scholarships to students studying one-year, full-time, campus-based Master's degrees from one of the Santander network countries (Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Peru, Portugal, Puerto Rico, Spain, Uruguay and Venezuela).

Eleven successful candidates each received a £5,000 scholarship in the form of a reduction in tuition fees and nine staff members and 19 students received travel awards to go to a range of countries including Brazil, Korea and China. Activities included collaborative research visits for staff and study abroad programmes and dissertation research for students.

Santander has been working in the education sector for more than 20 years and the network now comprises more than 1,100 universities worldwide. The University signed an agreement with the company through its Santander Universities Global Division in 2009 and the partnership is now well established. Since the signing, the bank's gifts to the University have provided funding for postgraduate scholarships, internships, travel awards, summer schools for pupils from local schools and an annual lecture in creative writing.

### August

#### A flexible curriculum

We are introducing a new way to study at the University in order to give our students more choice over the way they can combine different subjects. We remain passionate about providing high-quality teaching and we want our students to be able to study for a degree that is not only innovative in its approach, but also designed and built around a student's choice.

From September 2016, we have introduced a Major/Minor option which will complement our existing single and joint honours undergraduate degrees. We pride ourselves on offering flexibility and choice through the variety of degrees that we offer and the different modules and routes available within those degrees.

#### June

## Archaeology fieldschool at Bradgate Park completes second season

Academics, professional archaeologists and students from our School of Archaeology and Ancient History spent a second summer working together to uncover the hidden history of Bradgate Park. More than 80 archaeology students – 50 first years – were on hand to explore the site during the six-week long excavation.

"The focus of our second season is the medieval moated site, which contains a stone building that may have been a hunting lodge, a possible prehistoric enclosure located south of Bradgate House and Late Upper Palaeolithic hunting activity within the park," explains Project Co-Director and Acting Head of our School of Archaeology and Ancient History, Dr Richard Thomas.



# **Discovery-enabling** culture

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We have established a reputation as an open, accessible and friendly university, where people enjoy their work, and both staff and students benefit from our collegial and collaborative approach.

## University pilots Leicester Academy sports scheme

Our Sports and Recreation Service is helping to boost students' employability and inspiring schoolchildren through sport with the launch of the Leicester Academy programme.

With the aim of becoming the University's hub for students to access sport-related opportunities, the Leicester Academy currently offers coaching/officiating qualifications, workshops, training days and volunteer roles for our students.

To date, six students have completed a Lacrosse Officiating Course, five students have completed a Netball Level 1 Coaching Course and 11 students have completed a Primary Multi-Skills Training Day. In partnership with our Widening Participation Team, students have also been assisting with PE lessons and after school sports clubs in local primary schools.

"Visitors with a purpose, such as the students who volunteer in our school are like gold dust. They are valued, valuable and add sparkle to the lives of our children. As a school we inspire children to succeed and be the best that they



can be. Support from outside agencies helps us to achieve these goals and strengthen our links with the wider community," says Grainne Purkiss, from Braunstone Community Primary School.

Learn more: www2.le.ac.uk/offices/sports/leicester-academy

## Helping hospitals in Uganda

The University has donated 19 medical microscopes to Ugandan hospitals which have been distributed by an honorary graduate of our University.

Professor Nick London, Head of our Medical School, authorised the donation of the 19 Leitz microscopes after they became surplus to our requirements. They were transported by Medical Aid International to hospitals in Kampala, Uganda.

The Ugandan hospitals and rural clinics would have needed to raise a minimum of £1,200 or more to buy a single microscope of comparable quality, making the total saving of this consignment equal to at least £22,800 or 127 million Ugandan Shillings. The distribution of the microscopes in the African country has been led by Dr Keith Waddell who received an honorary Doctor of Science degree from our University in 2015. A world authority on retinoblastoma, Keith, has restored sight to thousands of people in Uganda and adjacent countries over the last 50 years and continues his full-time work in Central Africa after training in ophthalmic surgery in Leicester.

## UN Women launch HeForShe #GetFree Tour at our University

Gender equality roadshow inspires pledges to global movement.



We are proud to be one of only 10 universities from around the world committed to taking bold, innovative action to achieve gender equality within, and beyond, the institution as part of the UN Women's HeForShe movement.

In September, we welcomed the first ever UK HeForShe #GetFree Tour to our campus, bringing the global conversation of gender equality to our community.

"Our status as worldwide champions of HeForShe is both a great privilege and a huge responsibility. We have been vested with the challenge of making transformational advances in gender equality and being a beacon for the rest of the world," explains President and Vice-Chancellor, Professor Paul Boyle CBE.

Unfolding in two parts, the event saw the UN team, along with student volunteers, signing members of the University community up to the HeForShe movement – more than 1,000 students and staff pledged their support on the day.

An exhibition of gender-related research currently being undertaken at the University was showcased and there was also a more formal panel discussion. Speeches were delivered from Paul, Rachel Holland, President of the Students' Union, Elizabeth Nyamayaro, Head of the HeForShe Movement for UN Women, and The Right Honourable Nicky Morgan MP, former Minister for Women and Equalities.

We also took the opportunity to announce two new commitments on the day: the establishment of a new role championing equalities and diversities, and the renaming of Manorcroft at the Oadby Student Village after sociologist Professor Olive Banks, our first female professor. Olive, who died in 2006, was awarded a personal Chair in 1973 in the field of Sociology of Education and remained at our University until 1982. On her retirement that year, she was the only female professor at the University.

Upon departure from Leicester, the tour continued to visit five other universities in the UK and France: University of Cambridge, Imperial College London, London School of Economics, University of Nottingham and the Institut d'études politiques de Paris.

Learn more: www.le.ac.uk/heforshe

# An engineering inspiration

I really love improving things for students. I am working with students and staff from across the whole institution to ensure a more seamless postgraduate experience.

**Professor Helen Atkinson CBE** 

## Professor Helen Atkinson reflects on receiving national accolades.

riven by a desire to understand why things are the way they are, Professor Helen Atkinson CBE, FREng is officially one of the most influential people in Britain.

"I never thought I would feature on a Debrett's list!" Helen exclaims referring to her appearance on the 2016 Debrett's 500 most influential people in Britain list. "I am hugely honoured to have been named in the Engineering and Technology part of the list. The work the Debrett's Foundation is doing in encouraging young people from less advantaged backgrounds to aim high is impressive."

The former Head of our Department of Engineering, Helen has recently been appointed to the role of Graduate Dean where she is responsible for promoting high quality postgraduate education on campus, supporting the development of new postgraduate initiatives, and supporting College and departmental postgraduate research student recruitment activities.

"I am very focused on improving the experience for research students at the University as Graduate Dean," says Helen. "One of the areas I really want to enable is students talking to each other much more across disciplinary boundaries.

"My first priority is to establish a Doctoral College at the University to improve the way we go about matters. I really love improving things for students and doing a PhD is one of the most demanding, most challenging endeavours an individual can undertake. I am working with students and staff from across the whole institution to ensure a more seamless postgraduate experience."

Helen, who completed her own PhD at Imperial College on grain growth in oxide scales on high temperature materials such as nickel alloys, has been a Fellow of the Royal Academy of Engineering – the highest honour for an engineer in the UK – since 2007. She received a CBE from the Queen in the 2014 New Year's Honours for Services to Engineering and Education, and became the first woman President of the Engineering Professors' Council in its 50 year history.

"I became an academic by accident," Helen recalls. "We moved as a family to Sheffield once I finished my PhD and so I entered the job market and became a lecturer. I was incredibly fortunate to come to Leicester 14 years later as a Professor.

"It has been great to see the Department grow from 70 new students per year to 200, making it the fifth biggest department in the University. This has been to the great advantage of our students as employers now target Leicester for graduate engineer recruitment because of the number of high quality graduates we have. I'm extremely proud of the number of graduates we have with successful careers."

It was just prior to her time as Head of Department – a post she held between 20122016 – when Helen completed the project she is most proud of to date as Chair of the £17 million project team to rebuild the Percy Gee Students' Union Building.

"The previous Students' Union was a warren of very tired rooms, all on different levels. It was a project I really concentrated on for two and a half years and the Union had to remain operational throughout even though the core was being scooped out right down to the bedrock.

"It was a huge achievement for the whole team and every time I walk into the building my spine tingles, even now. It is fantastic that the new layout enables people with limited mobility to easily navigate the whole building, representing a major commitment by the University to meet their needs."

Earlier this year, Helen, who is the mother of three grown-up children was also named in the inaugural list of the top 50 Women in Engineering by *The Daily Telegraph*. Coinciding with the National Women in Engineering Day, the list, compiled in collaboration with the Women's Engineering Society, features the UK's top influential female engineers chosen from almost 900 nominations.

"It was a great thrill to also be recognised in this way. I didn't even know I had been nominated but I am proud to be in a list which recognises the contribution of women engineers – what a great way to encourage more females into the industry," she says.

## Brief exchanges

#### September

#### Transformative plan to pioneer 'distinctive elite' launched

Following extensive consultations with staff, students, alumni and local stakeholders, the President and Vice-Chancellor, Professor Paul Boyle CBE launched the University's new Strategic Plan. Paul unveiled his vision of a 'discovery-led' institution which places innovation at its core, positioning us as a research-intensive university which is inclusive and open to all who have talent.

The ambition is to create a university that represents a distinctive elite in the higher education sector. The plan highlights four key pillars of activity, which will be underpinned by a series of ambitious delivery plans, engaging all of our colleges, departments and divisions to enable us to deliver this ambitious plan. The areas are:

- Discovery-led research
- Discovery-led learning
- Discovery-enabling culture
- Discovery-enabling environment

The plan was also published alongside a refreshed university brand with a new logo and website to promote our exciting vision to the wider world.

#### November

## Eighth annual literary festival explores the magic of Wonderland

An in-depth look at Lewis Carroll's *Alice's Adventures in Wonderland* which celebrated its 150<sup>th</sup> anniversary in 2015 was one of the highlights of the University's very own annual Literary Leicester festival.

Organised by our College of Social Sciences, Arts and Humanities, the annual event welcomed an array of talent including an Oxford scholar, BAFTA-winning screenwriter and a best-selling novelist. In total, 20 literary-themed talks, readings, discussions and lectures took place during the four-day-long free festival.

Other highlights included legendary *Withnail and I* director Bruce Robinson discussing how he 'solved' the Jack the Ripper mystery and a talk about 60 years of *The Lord of the Rings* during 'Fantasy Fiction Saturday'.

#### October

#### Partnership formed with police training college in China

The University has put its name to a Memorandum of Understanding (MoU) with Zhejiang Police College, China, that will see the sharing of world-leading expertise in forensic science, traditional police work and more.

The relationship will enable research partnerships between the two institutions and exchange visits for academics and students, whilst encouraging collaboration in areas of mutual interest including forensic science and fingerprint enhancement.

Supported by our Research and Enterprise Division, the relationship may also open up funding opportunities to expand the academic and business relationship between the UK and China. Dr John Bond OBE from our Department of Criminology signed the MoU on behalf of the University. Zhejiang Police College is located in Hangzhou and is the principal training centre for police officers and the Department of Public Security for Zhejiang Province.



#### December

#### **Promoting UK higher education in England**

President and Vice-Chancellor, Professor Paul Boyle CBE joined other UK university leaders as part of a delegation to India to raise the profile of UK higher education.

Led by the former Secretary of State for Business, Innovation and Skills Sajid Javid MP and the Minister for Universities and Science Jo Johnson MP, the aim of the visit was to promote the university links that exist between the UK and India and to promote the UK as a study destination for international students. India provides more international students to the UK than almost any other country – second only to China – with 19,750 students from India studying at all levels.

## Leicester forges partnership with university in Egypt

Our University is to build closer links with a university in Egypt following the signing of a Memorandum of Understanding. The agreement has been established between academics at the American University in Cairo and our School of Education, following a three year EU Tempusfunded project developing capacity for teacher education and action research with Middle East and North African partners.



The project, led by Professor Hilary Burgess and Professor Chris Wilkins has made a significant contribution to teacher education reform in Egypt through enhancing the partnerships between schools, universities and the Egyptian Ministry of Education. The two universities will work together on co-operative teaching programmes and research, sharing of information and publications, and student and staff exchanges.

#### **February**

#### Spring flower viewing made annual event

The success of Crocus Weekends at the Botanic Garden has now led to it becoming an annual fixture in the garden calendar. This year, members of the community were invited to sample the delights of the flowers as well as refreshments in the 16-acre picturesque garden in Oadby on Sundays 28 February and 6 March.



#### One of the first flowers to bloom in spring, the

crocuses put on a spectacular display throughout the Sandstone Garden in front of Beaumont Hall. Visitors were also able to see an interactive exhibition of drawings by local children of £100 notes. One hundred of the children's designs were chosen for the special display which is part of a project based at the University to help local children see how our number system is built on tens, hundreds and thousands.

### April

#### University receives two Silver Athena SWAN Awards

We are delighted to share the success of our Departments of Cardiovascular Sciences and Infection, Immunity and Inflammation which both achieved Athena SWAN Silver Awards this year. This reflects the implementation of change and the demonstration of impact in addressing gender inequality within the departments, both of which have worked hard to achieve this prestigious accolade.

The University signed up to the Athena SWAN Charter in 2006 and achieved its Institutional Athena SWAN Bronze Award in 2008 with renewals in 2011 and 2014. The Department of Health Sciences achieved the University's first departmental Silver Award in 2013 and eight other Departments or Schools currently hold Bronze Awards.

# **Discovery-enabling** environment

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Our campus, infrastructure and processes reflect our ambitions as an outward-facing and enterprising university. We are developing environmentally sensitive, digitallyenabled and worldclass campus facilities. Bringing together academics, researchers, clinicians and students who were once spread across multiple sites throughout the city, the new £42 million state-of-the-art Centre for Medicine Building has officially achieved Passivhaus certification, making it the largest Passivhaus building in the UK.

Developed in Germany in the early 1990s, Passivhaus is the fastest-growing energy performance standard in the world. The key facet of Passivhaus is a 'fabric first' approach to construction and as such, the building is incredibly well insulated and air tight to prevent heat leakage through the windows, walls, floor and roof.

Achieving an Energy Performance Certificate (EPC) A, the building also provides high levels of natural light and contains high thermal mass and mixed-mode ventilation which uses a fraction of the energy of conventional air conditioning. Renewable technologies have been utilised, and a planted wall and green roof both increase the building's ecological contribution.

"The Centre for Medicine is super energy efficient," explains Paul Nesbitt, Operations Manager at construction company Willmott Dixon. "We have super levels of insulation, all of the glazing is triple glazed and we have a 1.6km underground heat recovery pipe network which effectively provides free air cooling and temperature control to the building."

Representing the largest investment in medical teaching and applied research by any UK university in the last decade, the Centre is a £42 million project financed by a combination of the University's capital resources and generous donor gifts made through a philanthropic fundraising appeal led by the Development and Alumni Relations Office.

# **Creating the UK's largest Passivhaus**

New Centre for Medicine Building receives internationally-recognised energy efficiency certification.
# Sir David Attenborough on beauty in nature



In January, Sir David Attenborough returned to the place of his childhood to deliver a public lecture as part of the University's new Chancellor's Distinguished Lecture Series.

More than 1,500 students, staff and members of the public filled De Montfort Hall to hear the naturalist and long-running television personality deliver his lecture entitled 'Beauty in Nature'. During the hour-long presentation, Sir David explored the subject of beauty in the natural world, interspersed with fascinating clips from his BBC documentaries.

From the birds that develop unique and wondrous plumage, to a type of puffer fish that creates highly complex artistic displays on the sandy seabed, the lecture explored ways in which the Animal Kingdom recognises and appreciates beauty in a number of fascinating examples.

Since the age of five, Sir David has had a special connection with our University, growing up in College House, with the appointment of his father, Frederick Attenborough, as Principal of University College, Leicester.

"We were delighted to welcome Sir David back to Leicester earlier this year," says President and Vice-Chancellor, Professor Paul Boyle CBE. "His family has a strong association with the University and the city."

Free and open to the public, the Chancellor's Distinguished Lecture Series was launched in June 2015 with the inaugural talk delivered by The Right Honourable the Lord Willets. The prestigious lecture series welcomes high-profile speakers who either have an existing link to, or relationship with the University, or who are notable in fields that align with our values and aspirations.

A former student of our University, Distinguished Labour Life Peer The Right Honourable the Lord Grocott is our sixth Chancellor. The office of Chancellor is traditionally held by a distinguished individual, in the largely ceremonial role. In addition to hosting his lecture series, the Chancellor presides at major University ceremonies, including graduation, and chairs the annual meeting of the University's Court.

Learn more: www2.le.ac.uk/institution/cdls

# Opening access to research for all

The University is committed to embracing open scholarship and in the 2015/16 academic year alone has published more than 4,650 pieces of academic research available on our Leicester Research Archive (LRA), the University's open access repository of research publications and theses.

We have an institutional responsibility to ensure that all publicly funded research is available to the public, and achieve this via the LRA which makes research conducted at our University discoverable and accessible to all with a simple click of a button.

Launched in 2006, the repository contains more than 16,000 pieces of research including PhD theses, as well as journal publications and conference presentations.

Not only does this satisfy governmental requirements, it also helps to promote the research and our University. "Our open access policy means all of our research is available, discoverable and accessible on a global scale," explains Grant Denkinson, Open Access and Research Data Advisor.

"This is a fantastic way for our academics to distribute their knowledge for free. We are

helping them to broadcast their research which not only has a wider impact, but can also help to increase their citations and even lead to future research collaborations."

The most popular 10,000 items in the LRA have been read in recent years and our manuscripts were downloaded more than 400,000 times during the 2015/16 academic year.

It is now mandatory for all PhD theses to be added to the repository. We are also proud to hold all PhD theses from the 1920s to the present day, after the Development and Alumni Office funded a project to scan all paper tomes previously stored in the archives.

Learn more: Ira.le.ac.uk

### Providing new homes for insects

To coincide with World Environment Day, students at our University have built two new 'Bug Hotels', replicating insect natural habitats.

An environmentally friendly initiative, bug hotels provide habitats for insects to nest in using only natural and harmless waste materials, placing emphasis on promoting biodiversity. The first bug hotels were built at the University by the Environment Team in partnership with the Environmental Action student society in 2014.

So far, four bug hotels have opened throughout Leicester – two at Brookfield, one in Victoria Park, and one in Scraptoft Valley Primary School. It is hoped that two further habitats will be constructed on the Fielding Johnson Building lawn and at Blackthorn Manor, Oadby.

"Insects have been shown to be invaluable to the planet, fulfilling a number of roles within the environment including eating pests, pollinating plants, contributing to ecosystems and attracting other wildlife such as birds. We hope that the bug hotels will provide a safe haven for more insects," explains Sarah Roberts from our Environment Team.

The University has also welcomed two new beehives at our Brookfield campus. Conceptualised by a group of staff and students – an offshoot group of the Hungry for Change project run by the Students' Union – the beehives are enabling interested individuals to learn and broaden their knowledge of beekeeping, ranging from bee anatomy and behaviour, to pollination patterns.

Launched in 2013, the Hungry for Change project aims to change the way students think about food whether that be seasonal, local, organic, growing their own or consuming food that produces less carbon emissions. The point is to educate and empower students to make their own informed food choices instead of relying on product labels.

Learn more: www.leicesterunion.com/ hungry-for-change



### Residence Life Team continues first-rate support

Living in University accommodation is about much more than the four walls our students sleep in. We strive to provide an all-round experience which gives students the chance to make new friends, enjoy themselves and learn new skills whilst they study.

Our Residence Life Team plays a pivotal role in ensuring our students settle into their accommodation by providing social events to meet fellow residents and try new hobbies. They also create opportunities for our students to learn new skills, including cooking and cleaning, and are on hand to support study habits by enforcing a 24 hour no noise policy during exam periods so that everyone can get the peace and quiet they need to study and sleep.

This year, the team launched an allotment where students have been able to learn how to grow their own food and experiment with recipes. So far they have made apple cider, apple and chilli chutney and prepared their own Christmas wreaths. The team has also been involved with the Student Energy Project which encourages students in halls of residence to save energy.

"This year we have seen more students than ever attending our social events. I think it's important to give students the opportunity to try new things and get to know their neighbours in the process," explains Sarah Wills, Assistant Manager, Oadby Student Village.

DISCOVERY-ENABLING ENVIRONMENT

# New Gallery Wing opens at Attenborough Arts Centre

Extension set to increase our arts and culture offering.

he new £1.5 million gallery extension at the Attenborough Arts Centre was officially opened by Sir David Attenborough during his visit to our University in January.

Designed by GSSArchitecture, the new wing has increased the size of the multi-use arts centre by 50%, and has created a series of interlinked spaces, together with an external sculpture garden and new cafe which are open to the public.

The original Richard Attenborough Centre was completed in 1997, the result of a campaign championed and led by Sir David's late brother Lord Attenborough, and it remains one of only two purpose-built accessible arts centres in the East Midlands for the promotion of arts and disability. It has garnered a number of awards for the quality of its work, including becoming part of Arts Council England's prestigious client portfolio in 2012.

"What impresses me about this new building is not actually nostalgia, but it is very much the people and seeing 21st century ideas of how a university should be – which is part of the community, which is embracing new ideas, which is at the cutting-edge of human knowledge and understanding; so it is a vibrant and exciting place, with people doing vibrant and exciting things, and I'm not here on a journey through a nostalgic past, I'm here to welcome an exciting future," explains Sir David.

Extending the current public programme and creative learning offer, the new galleries will endeavour to encourage new audiences and communities to engage with the University through its dynamic year-long programme of activities with three-to-four major exhibitions a year, open seven days a week, and with no entry charge. At weekends the galleries will offer a range of activities for families and young people to actively engage in the arts.

The official opening of the gallery coincided with the launch of a new exhibition by internationally acclaimed artists Lucy and Jorge Orta. The exhibition explored issues concerning environmental change and its social implications.

"Our Centre is a living tribute to the vision of David's brother to create an arts centre without barriers to access," adds Michaela Butter MBE, Director of the Attenborough Arts Centre.

"Our new galleries open up access to the visual arts to complement our existing programme of performances, courses and workshops across other art forms. We offer a welcoming and fun place to enjoy a wide range of arts activity, much of it for free, all year round."

Over 1,000 individual donors supported the University's Breaking Barriers Appeal to raise sufficient funds to lever a £600,000 grant from Arts Council England and £150,000 grant from the Garfield Weston Foundation towards the £1.5 million cost, and the extension has won a number of national and regional awards and nominations for design excellence since its opening.

# Brief exchanges

#### September

#### **Creating a digital curriculum**

Students in our Medical School are continuing to embrace the move towards a digital campus with the help of Educational Designer, Terese Bird.

The use of digital technology within the School has greatly enhanced medical students' learning, assessment and communication. Among other initiatives, she has introduced teaching and learning with iPads for the first two years of the course, and online exams.

Terese has also led the use of social media for learning, greatly enhancing our interaction with students. This is in addition to developing a template for digital student workbooks where students can build their own workbook using digital resources from the internet and the Library.

### Research shows pollution in cities is improved by trees

Trees in cities could be significantly improving the quality of the air we breathe by decreasing pollution levels for pedestrians according to research from our Department of Physics and Astronomy.



A new study, supported by the Natural

Environment Research Council (NERC) and aerial mapping company Bluesky International Ltd has found that trees have a regionally beneficial impact by increasing turbulence and reducing ambient concentrations of road traffic emissions – by 7% in Leicester for the average pedestrian.

The research team looked at ways trees could help to reduce air pollution in cities. To do this, they created a model with Bluesky based on 3D representations of the city, showing the effectiveness of trees at dispersing road traffic emissions.

#### December

#### **Christmas comes early**

Campus transformed into a winter wonderland at the beginning of December with a number of festive activities. For one day only, a synthetic ice rink took pride of place in the centre of the campus, where students, staff and members of the public were able to get their skates on, while taking in the festive music and Christmas scenes.

The ice rink was surrounded by a festive Christmas market offering a variety of local produce, a bottle bar selling locally produced ciders and ales, and even a Santa's Grotto in aid of the charity Child Reach.



#### Work begins on preserving iconic Engineering Building

The University has launched a new £19.5 million project and fundraising appeal, to replace the roof and glazed facades of our world-famous Engineering Building to secure its use well into the 21<sup>st</sup> century.

Designed by architects Stirling and Gowan, the Grade II\* listed building is recognised internationally as one of the most significant buildings of the 20<sup>th</sup> century and is considered an architectural icon. The building, constructed in the 1960s, has a unique glass roof and vertical glazed panel system which has now reached the end of its useful life.

The work will involve replacing each of the 2,500 glass panels of the innovative 45-degree, patent-glazed, diamond-shaped roof, designed to provide light to the engineering research laboratories and workshops.



#### February

#### Staff and students team up for Go Green Week

As part of our Environment Team's Sustainable Development Programme, students and staff have been donning their eco hats to work on a number of environment and sustainability projects, with Go Green Week the culmination of many of these projects.

This annual celebration of all things sustainable always includes a number of exciting activities focusing on sustainable work and venturing into the importance of healthy living. This year, activities included a jumper sale, a Zumba marathon, a wastecycle information stall, Big Bio Bingo, and more.



#### July

#### Staff pool bike scheme launched

Many of our staff have to travel between our sites and the local area during the work day, and so we have launched a pool bike scheme to speed up travel time and reduce the need for staff to drive between our sites.

The scheme includes four electric bikes and five hybrid-style bikes with panniers to store notebooks, tablets and other personal belongings which staff can hire online.

# Awards and recognition

The University of Leicester's **Attenborough Arts Centre** celebrated its 19<sup>th</sup> year by winning a Leicester and Leicestershire Excellence in Tourism Award, under the Access for All category for the second year running. They were also highly commended in the same category at the VisitEngland Awards for Excellence 2016.

President and Vice-Chancellor, **Professor Paul Boyle CBE** was among seven leading scientists asked to form a revitalised Scottish Science Advisory Council (SSAC) to advise Scottish Ministers.

**Dr Margaret Byron** of our Department of Geography was this year's recipient of the Taylor & Francis Award from the Royal Geographical Society, awarded for excellence in the promotion and practice of diversity in the teaching of Human Geography.

The University's **College Court Conference Centre** was honoured in the LateRooms.com 'Simply the Guest Awards 2016' by achieving the prestigious Top Rated status. The awards are the only UK hotel awards based solely on genuine guest reviews.

The University's **Creative Team** was shortlisted for a Royal Television Society Award for the *We are HeForShe* video, which also won a CASE Circle of Excellence Silver Award, and the General In-House Production Award at the British Universities Film and Video Council's (BUFVC) Learning on Screen Awards. The *Richard III: The DNA Analysis and Conclusion* video also won the General Education Non-Broadcast Award at the BUFVC Learning on Screen Awards.

PhD History student, **Nick Cummins** was selected to represent Great Britain at the prestigious BT World Wheelchair Rugby Challenge, which brought together the best teams in the world.

The **Development and Alumni Relations Office** was recognised with a top national award for Prospect Research Analytics at the Institute of Fundraising – Researchers in Fundraising Awards for their dynamic approach to reporting using their Pyramid Pipeline.

The East Midlands Forensic Pathology Unit and Professor Bruno Morgan were

announced as the winners of the Innovation Through Integration category at the East Midlands Innovation in Healthcare Awards for the implementation of the first true NHS located Post-Mortem Computed Tomography service.

Postgraduate research student **Jane MacArthur** was one of only eight people in the world – and the only one in the UK – to win an international social media competition to visit one the world's most advanced telescopes in New Mexico.

Team Mansell, consisting of fourth year MEng students **Amar Patel** (Team Leader), **Harnish Rathod**, **Mmoloki A Machacha**, **Sahil Patel** and **Haroon Habib**, won the inaugural race in UniFi Motorsport Formula 1 aerodynamics competition.



A team of students consisting of **Michael Mark** and **Jan Sila** of our Department of Mathematics and one student from the Vrije Universiteit Amsterdam won first prize in the Applied Data Analytics Challenge in Deloitte in Prague.

The **Marketing Communications Team** won awards in the Best Postgraduate Prospectus and Best Postgraduate Student Recruitment Initiative categories at the annual Heist Awards which showcase the achievements of university and college marketing departments.

Our **School of Museum Studies** – ranked among the top research departments in the country – celebrated its 50<sup>th</sup> anniversary by offering a total of six new scholarships to prospective postgraduate students.

The University's **News Centre** won the Understanding Animal Research Openness Award for animal research public engagement activity at the Wellcome Collection Annual Awards 2015.



Poet **Selina Nwulu**, who graduated from our University with a degree in French and Italian was named Young Poet Laureate for London.

**Dr Damian Roland** of our Department of Health Sciences won an international award for his research into social media and healthcare, taking first prize in the Stanford Medicine X | Symplur Signals Research Challenge 2015.

Eminent researcher and cardiologist, **Professor Sir Nilesh Samani** was announced as the next Medical Director of the British Heart Foundation (BHF).

A novel by **Dr Jonathan Taylor** of our School of Arts was shortlisted for the prestigious East Midlands Book Award 2015, which acknowledges the best books written by authors in the region each year.

The **University of Leicester** scooped the title of Overall Winner 2015 at the Research Councils UK (RCUK) and PraxisUnico Impact Awards. The Impact Awards recognise and celebrate the vital role knowledge exchange and commercialisation (KEC) professionals play in maximising impact from research.

The **University of Leicester** was shortlisted for Outstanding Strategic Planning Team, Outstanding Procurement Team, Outstanding Development/Alumni Relations Team and the Data Points Merit Award at the Times Higher Education Leadership and Management Awards (THELMAs).

Emeritus Professor and Leverhulme Emeritus Fellow **Professor Alan Wells** of our Department of Physics and Astronomy, was honoured by the Royal Astronomical Society with the 2016 Service Award for Astronomy in recognition of his pivotal role in UK Space Science for more than 40 years.

#### **Queen's New Year Honours 2016**

Leicester alumnus **Aatin Ashok Anadkat**, founder of local business Hotel Maiyango, received the British Empire Medal for services to Entrepreneurship. Aatin is also a member of our Alumni Association.

Our President and Vice-Chancellor, **Professor Paul Boyle**, was awarded a CBE in recognition for his contribution to social science while Chief Executive of the Economic and Social Research Council.

Criminology graduate, **David Cowell** was appointed an MBE for services to vocational education for his work on the Melton Learning Hub.

**Professor Melanie Davies** from our Department of Health Sciences received a CBE for her services to Diabetes Research.

**Jess Steele**, a PhD student in our Department of Geography was awarded an OBE for services to community assets in the UK.

Honorary graduate and former member of the University Council, **Dr Adrian Weston** received an MBE for services to the community and charity in Leicestershire.

#### **Queen's Birthday Honours 2016**

**Roger Hopkinson**, an alumnus of the Department of Engineering was made an MBE for services to the UK's general aviation community.

Honorary Graduate and former Bishop of Leicester the **Right Reverend Timothy John Stevens** received a CBE for services to the Church of England and the community in Leicestershire.

**Professor Nicholas Veck**, an honorary professor in our Department of Geography was made an MBE for services to environmental science.

# Degree celebrations 2016 Honorands 2016

#### January



Muhammad Shahid Raza OBE Doctor of Laws

The Head Imam at Leicester Central Mosque, Muhammad has spent his life working with Muslim community groups locally, nationally and internationally.



Michael Smith Doctor of Laws

A Leicester businessman, Michael is founder and former Chairman of Shoe Zone which sells 20 million pairs of shoes annually.



Vichai Srivaddhanaprabha Doctor of Laws

Chairman of Leicester City Football Club, Vichai founded the King Power Group, one of Asia's leading duty free retailers.

#### July



Tony Allcock MBE Doctor of Laws

A world champion bowls player and the current Chief Executive of Bowls England, Tony was born in Thurmaston, Leicestershire.



Graham Beale CBE Doctor of Laws

The former Chief Executive of Nationwide Building Society, alumnus Graham read Psychology at our University.



**Professor Dame Ann Dowling** Doctor of Science

President of the Royal Academy of Engineering, Ann is Professor of Mechanical Engineering at the University of Cambridge.



Ed McLachlan Doctor of Letters

A cartoonist and illustrator, Ed was regular contributor to *Punch* magazine, including designing its covers.



The Very Reverend David Monteith Doctor of Laws

Dean of Leicester Cathedral, David led the Cathedral's work to reorder the building and reinter King Richard III in March 2015.



Sarah Outen MBE

A British solo oceanrower, Sarah became the first woman and the youngest person in the world to row solo across the Indian Ocean.



We are delighted to award honorary degrees to candidates who have made impacts in a wide range of unique ways. It is fitting that as we celebrate the achievements of our own graduates, we also celebrate those linked to the region whose own achievements should inspire our graduates to even greater success.



Professor Sir Godfrey Palmer OBE Doctor of Science

Professor Emeritus at Heriott-Watt University, Godfrey is an expert in barley, malt and cereal grains, and brewing. He is also a rights activist.



Nicholas Parsons CBE Doctor of Letters

An actor and broadcaster, Nicholas has hosted BBC Radio 4's comedy panel game *Just a Minute* since its first broadcast in 1967.



Dr John Sandford-Smith MBE Doctor of Science

An emeritus consultant ophthalmologist at Leicester Royal Infirmary, John has worked and taught widely throughout Africa and Asia.



Lars Tharp Doctor of Letters

A ceramic historian, consultant and broadcaster, Lars was educated in Leicester at Wyggeston Grammar School for Boys.



The Right Honourable the Lord Willetts Doctor of Laws

The former Member of Parliament for Havant, David was Minister of State for Universities and Science from 2010 to 2014.

# At a glance 2015/16



#### **Students**

Undergraduate	11,608
Postgraduate	7,555
Occasional/Exchange	15
Full-time	13,961
Part-time	5,217



#### Income\*

Funding body grants	£40,561,000
Tuition fees and education contracts	£151,399,000
Research grants and contracts	£51,768,000
Investment income	£677,000
Donations and endowments	£1,184,000
Other income	£50,663,000



Academic and clinical	896
Research	443
<ul> <li>Administration, library, computer and other</li> </ul>	807
Technical	245
<ul> <li>Clerical, manual and ancillary</li> </ul>	1,304



#### Expenditure\*

Staff costs	£173,548,000
Other operating expenses	£98,651,000
Depreciation	£15,458,000
Interest and other finance	£7,080,000

\*The results of subsidiaries acquired or disposed of during the period are included in these consolidated statements.

#### **Our structure**

Our three college structure enables us to work across disciplines, bringing innovative, collaborative approaches to our research and teaching.

> College of Medicine, Biological Sciences and Psychology

College of Science and Engineering College of Social Sciences, Arts and Humanities

#### List of officers and senior staff

**Visitor** Her Majesty the Queen

**Chancellor** The Right Honourable the Lord Grocott

**Pro-Chancellor and Chair of Council** Dr B E Towle, CBE, DL, BA, LLD, FRSA

**President and Vice-Chancellor** Professor P Boyle, CBE, FBA, FRSE, FAcSS

**Treasurer** Mr D Moore, BA, MBA

Provost Professor M Peel, BA, MA, PhD, FASSA, FRHS

#### **Pro-Vice-Chancellors**

Professor M A Barstow, BA, PhD, CSci, CPhys, FInstP (PVC Strategic Science Projects) Professor S Dixon (PVC International) Professor I Gillespie (PVC Research and Enterprise) Professor J Scott (PVC Student Experience)

#### **Pro-Vice-Chancellors and Heads of College**

Professor P Baker, BMedSci, BM, BS, DM, FRCOG, FMedSci (College of Medicine, Biological Sciences and Psychology)

Professor J Coleman, BA, MA, PhD, FHEA, FEA (College of Social Science, Arts and Humanities)

Professor P S Monks, BSc, DPhil, FRMetS, FRSC (College of Science and Engineering)

#### Graduate Dean

Professor H V Atkinson, CBE, MA, PhD, Drhc, FREng, CEng, FIMMM, FIMechE, DIC

Registrar and Chief Operating Officer Mr D E Hall, BA

University Librarian Ms C Taylor, BA, Dip Lib, MCLIP



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