

December 2016/January 2017

*International
Influence*



UNIVERSITY OF
BIRMINGHAM

Provost and Vice-Principal's *view*

Having moved to Birmingham in late summer to take up the position as Provost and Vice-Principal it feels like an ideal moment to reflect on my 'first one hundred days' in the job. I can't believe how quickly the time has gone!



Provost and Vice-Principal, Professor Tim Jones

YOUR BUZZ

Next edition 8 February 2017
Copy deadline 13 January 2017

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Front cover image: Professor Robin Mason, Pro-Vice-Chancellor (International)

I already had a reasonable appreciation of the University, primarily through my recent years at Warwick and my involvement in several regional collaborations. However, many things were new to me, and so one of my first priorities was to visit the Schools and Institutes that make up the University. I have enjoyed each visit, in particular meeting staff and students and learning more about the exciting and broad range of activity. It has also been very helpful to discuss future opportunities, challenges and concerns. The dedication, enthusiasm and openness of everyone is greatly appreciated and I am looking forward to meeting more people as I complete the rest of my visits.

Interestingly, the most common question that has been asked of me is: 'What does the Provost do?' It's a perfectly reasonable question, in particular as not all UK universities have such a role. My primary responsibilities are to provide institutional leadership for planning, budgeting and resource allocation; for the estates strategy and capital matters; and for institutional staffing policies. I need to ensure that resources are prioritised and allocated in the most effective way to enable the best possible institutional performance and for the University to achieve the ambitious aims and goals set out in the Strategic Framework.

On my first day, Trevor Payne, the Director of Estates, gave me an extensive tour of the Edgbaston campus. It was a glorious late summer day and made me appreciate what a wonderful campus we have, located so close to the heart of the UK's second largest city. That opinion was reinforced by a subsequent trip to the top of Old Joe, where I was fortunate to gain a birds-eye view of the campus and the surroundings. I have since visited many of our buildings to look at the nature and quality of the space we provide for students and staff, and for our educational, research and other requirements. We have an ambitious capital plan, with a number of new buildings and major refurbishments already taking place or planned in the near future. One of my main responsibilities is to ensure we have the very best facilities available for world-class research and education. I will therefore be working closely with Colleges, Professional Services and the Guild of Students to ensure

we are able to identify and support future priorities, and to ensure the campus is refreshed in a timely and appropriate manner so it continues to be a world-class asset for the University.

There have been many great experiences during my first three months, but I would like to highlight four particular examples. Firstly, the new Library, a fabulous facility that opened soon after my arrival. I continue to be amazed at how busy it is and how the different types of space are being utilized by students and staff. Secondly, the award of the 2016 Nobel Prizes in Physics and Chemistry, to three ex-academics of the University who undertook their pioneering research at Birmingham. I was delighted to host the visit of Professor Sir Fraser Stoddart, who gave a wonderful lecture to a packed theatre in the School of Chemistry, and who spoke with such affection about his time here. Thirdly, the celebration of our four Olympic gold medalists, including current student, Lily Owsley, from the School of Sport, Exercise and Rehabilitation Sciences. It was not only inspiring to hear them speak about their success, but also their enormous enthusiasm for the University. Finally, the University of Birmingham School, which is now in its second year of operation. The space and facilities are superb and it was a genuine pleasure to see them being used so enthusiastically by children from such a diverse range of backgrounds.

I must mention one further (and rather personal) highlight. My first meeting with the Vice-Chancellor took place in early September, the morning after the Manchester football derby. Many people know that the Vice-Chancellor is a lifelong Manchester United supporter. Some may know I am a lifelong Manchester City supporter. City won 2-1 so it made for a particularly interesting introduction!

Finally, I would like to thank everyone for making me feel so welcome during my first few months. This University is a fabulous place to work and to study, with so many good things happening and many exciting opportunities ahead. I wish you all a very happy Christmas and relaxing holiday and I look forward to meeting more of you in 2017, and to working with everyone to help deliver future success for the University.

BIRMINGHAM GLOBAL CHINA

VICE-CHANCELLOR PROFESSOR SIR DAVID EASTWOOD VISITS CHINA

The University of Birmingham has signed two major research and collaboration agreements in China that build on our expertise in technological innovation and Shakespeare.

The Vice-Chancellor, Professor Sir David Eastwood, travelled to Nanjing with Shakespeare Institute Director Professor Michael Dobson, China Institute Director Professor Jon Frampton and other senior leaders to sign the agreements.

The Vice-Chancellor signed a new ¥20,000,000 agreement with Dr Yidong Hu, Vice President of Jiangsu Industry Technology Research Institute (JITRI), to develop innovative research in key areas such as nanoparticle technology and biomedicine. The agreement allows both partners to work together on applied research projects that will use the University's research expertise to strengthen technological innovation in the Jiangsu Province across a wide range of engineering and medical technology. Research opportunities could also cover nanofabrication, advanced manufacturing and electronic information systems. The partnership also helps to strengthen links between Jiangsu Province and the City of Birmingham in working together on industrial research and development.

The partnership, which also involves experts at Nanjing University, will create a 'Birmingham Lecture' series – introductory materials in subjects where the University is recognised for its expertise, such as stem cell biology, energy storage, and gravitational waves. These will provide useful reference tools for students looking to improve



their understanding of study areas. Professor Sir David Eastwood said: *'We are delighted to forge a partnership with JITRI, which is testament to the University of Birmingham's growing reputation in China. It presents another exciting opportunity for our researchers to foster strong partnerships across the globe.'*

'We are honoured to work with JITRI in helping to drive innovation and manufacturing progress, not just in China but closer to home in the Midlands region of the UK. I believe that we can make a significant contribution to a strengthened relationship between our two regions.'

Together with Professor Dobson, the Vice-Chancellor also signed agreements with the Chairman of the Board of Phoenix Publishing and Media Group, Mr Zhang Jiankang, to broaden the appeal of William Shakespeare in China. Phoenix will work with experts at the University's world-renowned Shakespeare Institute, in Stratford-upon-Avon, to increase access to and understanding of Shakespeare – setting up a new centre in China dedicated to Shakespeare and his works.

Speaking after a special signing ceremony in Nanjing, Professor Michael Dobson said: *'A huge expansion of interest in the study and performance of the plays in China has been one of the most positive developments in Shakespeare's world-wide reception*



in the twenty-first century.

'As the 400th anniversary year of Shakespeare's death draws to a close, the team in Stratford is very excited about working with Phoenix. We believe that their publishing expertise will help us to extend the Shakespeare Institute's reach in China, bringing the delights of Shakespeare to an even wider audience.'

Before his engagements in Nanjing, the Vice-Chancellor joined seven fellow Russell Group leaders in the first delegation of its kind to China. Eight Vice-Chancellors from the Russell Group – the UK's 24 leading research-intensive universities – travelled to Shanghai for discussions with leaders from the China 9 (C9) – an alliance of nine elite universities in mainland China.

Delegates focused on strengthened relationships and shared approaches to global challenges between UK and China's leading universities. The event was co-chaired by President Jie Zhang of Shanghai Jiao Tong University and Professor Sir David Greenaway, Chair of the Russell Group and Vice-Chancellor of the University of Nottingham.

University leaders discussed how best to foster excellence in research, innovation and higher education. They also considered the benefits of, and opportunities for, collaboration between the Russell Group and Chinese universities.

The Alumni Impact Fund is back!

Don't miss your chance to access a share of £120,000 in funding for your innovative project.

The Development and Alumni Relations Office (DARO) is inviting academics and students to bid for funding to help with innovative projects that will have an immediate impact on our campus, teaching and activities, and ultimately enhance the student and staff experience.

Thanks to the donations of our alumni, a total of £120,000 of funding is available – £20,000 for each College and £20,000 for Professional Services.

The deadline for applications is 3 February 2017. For more information and to apply, visit www.birmingham.ac.uk/aif

JOIN A BIG CONVERSATION AND HELP US TO SHAPE A 'BIRMINGHAM FUTURES CURRICULUM'



How will future changes in society impact on undergraduate and postgraduate university education? In 2026, how will universities be organised, students learn, staff teach and employers recruit?

We all share an interest in the future of this great University, so we invite current and future students, staff, alumni, employers and other stakeholders to imagine life in 2026, and join a futures-oriented Big Conversation about university education. The aim is to engage as many stakeholders as possible in conversations that will help us to shape a distinctive and innovative 'Birmingham Futures

Curriculum' to ensure we remain at the cutting edge. For students, there are prizes for the most visionary contributions.

So, this is your opportunity to leave a legacy.

To find out the many ways in which you can get involved, visit www.blog.bham.ac.uk/bigconversation, email bigconversation@contacts.bham.ac.uk or join in the conversation online #UoBFutures

Christmas bauble appeal

On Wednesday 23 November, a Christmas tree went up in front of the Bramall Music Building. We will put up a bauble for each staff member, student or community member who makes a £5 recommended donation to Childhood Cancer Research conducted at the University by Dr Frank Mussai. As a token of our appreciation, for each donation we will hang a bauble with your personal Christmas message (up to 140 characters) on our twinkly fir tree.

The campaign will continue until 22 December and we will be adding baubles on a regular basis for each donation.

To donate, Text GIVE 5 or GIVE 10 to 85010 to donate £5 or £10. Or you can donate online: www.birmingham.ac.uk/charitybauble



FOUNDERS' AWARDS

The winners of our Founders' Awards 2016 are:

THE JOSEPH CHAMBERLAIN AWARD FOR ACADEMIC ADVANCEMENT

Professor Andreas Freise and Professor Alberto Vecchio

Professor Freise and Professor Vecchio's leading roles within the LIGO collaboration led to the first ever detection of gravitational waves.

THE CHARLES BEALE AWARD FOR POLICY ADVANCEMENT

Dr Kate Gooch

Dr Gooch was recognised for her work in a groundbreaking ethnographic research project to understand the new dynamics of prison victimisation.

THE ASTON WEBB AWARD FOR OUTSTANDING EARLY-CAREER ACADEMIC

Dr Lucie Ryzova

A social and cultural historian of modern Egypt, Dr Ryzova is one of the leading voices at the cutting edge of her discipline, making Birmingham a recognised centre of excellence.

THE JOSIAH MASON AWARD FOR BUSINESS ADVANCEMENT

Dr Hamid Dehghani, Dr Iain Styles and Dr Hector Basevi – 3D Engine Ltd

3D Engine is successfully commercialising innovative 3D imaging methods, developed in the School of Computer Science.



Higher Education Review: *'exceptional and unprecedented'*



As the year draws to a close, and, as we prepare to enter 2017, the year that will unveil the government's Higher Education Bill – and with it a Teaching Excellence Framework (TEF) – *Buzz* looks back at the independent assessment of our education provision in 2016.

In May, the results of the Higher Education Review (HER), overseen by the Quality Assurance Agency (QAA) – the body entrusted with monitoring, and advising on, standards and quality in higher education – landed on the desk of our then Pro-Vice-Chancellor for Education, Professor Jeff Bale. On it: Commendations for the quality and enhancement of our student learning opportunities – the highest possible rating for those areas.

What is HER?

HER is an external, periodic review undertaken every four to six years with the aim of informing students and the wider public whether a provider meets the expectations of the higher education sector in relation to academic quality and standards.

Our HER visit took place from 15–18 February 2016, but preparations for it took place long before – months of hard work by colleagues across the University, including our students. Indeed, an assessment of this magnitude requires a huge, collaborative effort, by people who put in the extra effort, above and beyond their day jobs and studies.

The team of QAA reviewers praised areas of good practice, including the high value we place on teaching and our sustained engagement with employers. The reviewers, experts from other universities and colleges, including a student reviewer, commended both the quality of student learning opportunities and the enhancement of student learning opportunities at Birmingham. They made no recommendations for improvement – none!

The Commendations position us strongly for the first round of the TEF, TEF 1; our HER outcome means that we automatically 'meet expectations' under TEF1. So, one could confidently say that the University has a superb footing on which to build for the future. Reflecting on the result, Professor Kathy Armour (Pro-Vice-Chancellor, Education) and Professor Jon Green (Deputy Pro-Vice-Chancellor, Education), jointly said: 'The result of the HER for the University of Birmingham was exceptional and unprecedented across the sector. We received two Commendations for "the quality of student learning opportunities" and "the enhancement of student learning opportunities". Nine features of good practice were highlighted and there were no recommendations or affirmations.

Birmingham is the only university in the Russell Group to have been awarded two Commendations, and has more features of good practice than the other institutions. Moreover, no other university in England has a better HER profile than us. This shows that we deliver an outstanding experience for our students and that our quality assurance processes are robust and fit-for-purpose.'

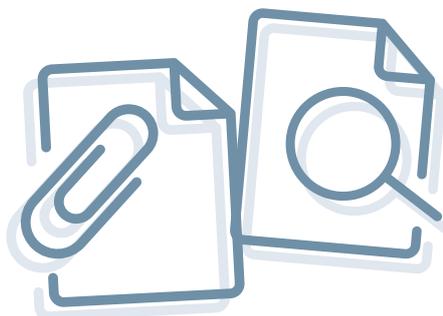
And looking ahead:

'This outcome is important as we move ahead to the new regulatory framework for higher education, and also the TEF. As part of the new framework, our Governing Body – Council – has responsibility for confirming that the University's academic standards and the quality of the student academic experience are robust, as part of a new "Annual Provider Review" (APR). The impressive outcome of the HER will provide our Council with reassurance about the effectiveness of the systems we have in place. We are also fortunate in having an outstanding team in Registry and Academic Services, with particular mentions for Jo Luckett and Laura Powell, who took the lead in preparing the HER documentation and supporting the QAA HER visit.'

To give you a sense of just what's involved in the HER:

- Self-Evaluation Document (SED): **171 (+36 from The Guild) pages, 87,607 words**
- Pieces of evidence (ie, separate documents) submitted in advance of the HER visit: **967 + 71 pieces of evidence from The Guild**
- Additional pieces of evidence submitted following further requests from the QAA: **379**
- Staff involved in the mock review and the HER visit: **c. 90 in total, including both academic and professional services staff**

- Staff involved in the preparations (eg, contributing to the SED, providing documentary evidence base, etc.): **countless**
- Recommendations for areas we need to improve: **0**



Areas of good practice highlighted in the report:

- The high value placed on teaching, and the enabling of staff to develop and improve as teachers
- The systematic use of data about student learning to identify ways of enhancing learning opportunities
- The University's sustained engagement with employers, which enhances learning and employment opportunities for students
- The culture of evidence-based and contextualised decision making which contributes to the enhancement of students' learning opportunities



GLOBAL CULTURAL ENGAGEMENT



West African masks, Pop Art prints, celestial globes, 19C medical waxes and historic scientific instruments make up a cornucopia of extraordinary artefacts that are displayed in departments and dispersed around campus. One of five museums on campus, our Research and Cultural Collections' work ranges from preserving and making use of collections to hosting Artists in Residence and commissioning pop-up exhibitions, playing a ceremonial, decorative and didactic role in University life.



The Research and Cultural Collections Centre, 32 Pritchatts Road – home to the International Museums and Collections Award

Open to staff, students and visitors, the collections offer a journey into the cultural past and present, connecting people and telling their stories through objects. The international-breadth of the artefacts mirrors the global fabric of our campus, and plays a valuable role in supporting academic study, enhancing the vibrancy of campus life and engaging the wider community.

Indeed, our community is a global, multicultural community, and this year we're celebrating the seventh International Student Projects Program: Museums and Collections Award (IMCA), which forms a successful partnership between the Universities of Birmingham and Melbourne. The last two years have seen the award expand to include the University of Lund, Sweden. The initiative brings together Universitas 21 (U21) partners with outstanding museums and collections, and offers funded placements for students looking to gain valuable experience in the museum and heritage sector.

At the University of Birmingham we host students from each of the partner organisations for a placement within our museums and collections, which include the Research and Cultural Collections, Lapworth Museum of

Geology, Barber Institute of Fine Arts, Winterbourne House and Garden and Cadbury Research Library; each museum or collection providing a different experience, tailored to the candidate's background and research interests.

The Research and Cultural Collections Study Centre (RCC) provides a welcoming base, with RCC staff designing the bespoke placement and providing pastoral care and administrative support. During placement, students have the opportunity to observe and work alongside professional staff, developing a range of skills relating to various aspects of museum and collection-based work.

The projects may include:

- Conservation/preservation
- Significance assessment
- Documentation and cataloguing
- Research
- Interpretation
- Exhibition development

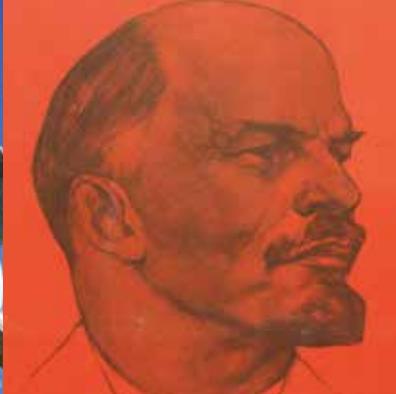
What it offers the student

Employment in the museum sector is notoriously difficult without extensive volunteering experience, so this opportunity offers students an intensive

introduction to a range of museum specialisms within a structured programme. Students gain a broad range of experience, including working with staff from across the University – such as curators, collection managers, archivists and conservators and academics. Students are also encouraged to build into their placement a period of self-directed study, and visits that are relevant to their individual interests at other cultural institutions within the country. They also benefit from networking opportunities and the creation of contacts within the industry.

The calibre of the successful candidates over the last seven years has been extraordinary, and our students act as great cultural ambassadors for the University of Birmingham, helping to strengthen our partnership working between the institutions with a cohort of alumni who are all now successfully working in the cultural sector.

Having expanded in 2015 to include the University of Lund, we hope that the opportunity will be inclusive of all U21 universities in the near future.



“This is a unique scheme providing placements that are designed to be mutually beneficial to the host university and the student, enhancing the student’s understanding of the cultural sector and their professional skills, while adding real value to the collections. The calibre of the 15 students who have taken part in the award so far has been truly excellent, and we really enjoy being involved in shaping this experience and supporting our global network of curators, collections managers and cultural leaders of the future.”

Clare Mullett, University Curator

What the students say

Kim Goldsmith, Birmingham placement 2016

Through the generous and enthusiastic support of staff at the University of Birmingham, I gained confidence in my conservation and interpersonal skills. Furthermore, I enjoyed exploring the culture of Birmingham, and attended exhibition openings and events with my colleagues. Looking back now, I realise that the award activities deepened my understanding of the museum industry. Additionally, it was a chance for me to appreciate that I have skills that could contribute to the field.

Blog: www.imacaward2016.wordpress.com/2016/01/12/northern-adventures



public with artefacts. I now manage several Heritage Lottery Funded projects which focus on making history accessible to wide audiences which, until I did the exchange, had never been a path I had considered.

Rachael Yardley, Lund placement 2015

I thoroughly enjoyed every moment of my time spent in Lund, and found the placement challenging, stimulating and incredibly rewarding. I was given a detailed introduction to all aspects of the collections at the University of Lund from passionate and knowledgeable members of staff, which made the experience exciting as well as interesting.

Blog: www.letlooseinlund.tumblr.com/



to work with documenting, cataloguing and caring for different kinds of museum pieces, as well as learning to write about the objects in different ways. It was a very rewarding experience!

Blog: www.twolionsonemermaid.wordpress.com/

Visit

All collections are open to the public (some requiring prior appointment with the school or department concerned). While some collections on campus are of a specialist nature, all displays are organised to be engaging to all, with informative labels. So, next time you've got an hour to spare, why not make the most of what we have right here on our doorstep?

For more information, visit www.birmingham.ac.uk/rcc

The scheme was originally set up by Clare Mullett, University Curator, following a fellowship at the University of Melbourne.

Katy Wade, Melbourne placement 2010

The month I spent in Melbourne has had a profound impact on my career direction.

During my time there, I gained professional experience in collections care, research, interpretation, and methods to engage the



Sigrd Nilsson, Birmingham placement 2016

Receiving the Universitas 21 International Museums and Collections Award enabled me to get experience within several of the practices that tie into my education. With Research and Cultural Collections as my base I got



transforming OUR campus

‘Rethinking the way STEM is taught and designed’

Our Green Heart Vision takes shape

Work to create our striking new parkland in the centre of our Edgbaston campus is now well underway. The Green Heart will bring more than 7 acres of new natural space to our University and is on schedule for completion in 2019.

Over the last few months, the University has worked in partnership with consultancy group, Nomad, to understand the needs our students, staff, and the wider community to ensure that the design of the new space is centred around you. Thank you to everyone who gave their views and ideas. It is these insights that will enable the University and the Green Heart design team to build a space that is unique to our community.

Surveys, polls and workshops highlighted a number of themes. You said you want to see:

- ✓ Space for socialising
- ✓ Entertainment and performance areas
- ✓ Opportunity for enhanced wellbeing
- ✓ Outdoor learning spaces
- ✓ Access to information on the University and its history
- ✓ Quiet contemplative spaces for relaxation and secluded study



Artist's impression of the Green Heart

Your ideas are being brought together to create a green and unified campus with a clear identity.

You may have noticed that we've laid some sample paving in University Square outside the Law Building – tell us what you think and share any further suggestions via our online poll (birmingham.ac.uk/greenheartpaving) or our new Twitter account @uobgreenheart.

The main building work will begin in February 2017 with careful planning to ensure that disruption across campus will be minimised over the next three years. You can find details of the building schedule along with some useful Frequently Asked Questions at www.intranet.birmingham.ac.uk/green-heart

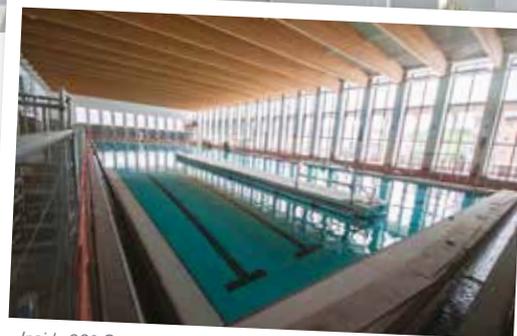
Finishing touches for our new sports centre

Building work at 360 Sport & Fitness is approaching the home straight, as we prepare to open in the New Year.

Our new sports centre will feature the city's first 50m pool, six glass-back squash courts and a multi-sports arena. The five studios will host more than 200 fitness classes per week for activities from indoor cycling to Pilates, weight training to Zumba. The gym is being fitted with more than 200 stations with equipment supplied by the official Olympic supplier,

Technogym, and the Performance Centre will have state-of-the-art apparatus including an AlterG anti-gravity treadmill, which will enable our expert sport science practitioners to offer guidance and support.

Staff membership options include peak and off-peak, from inclusive (gym, swim, squash and unlimited classes combined) to squash only. To join, contact sales@360birmingham.co.uk, call 0121 4142056/0121 4158732 or visit our



Inside 360 Sport & Fitness – the 50-metre pool

Sales Hub in the Munrow Sports Centre. Get your membership now to be one of the first to use the new facility and secure your exclusive staff rate.

Collaborative Teaching Laboratory gains pace for new approach to STEM education

Following confirmation of planning permission in September, the University has begun work on the new build phase of the Collaborative Teaching Laboratory (CTL), which brings together practical teaching activities across a broad range of science and engineering disciplines. The CTL is due to be completed by 2019.

The new state-of-the-art building, along with the recently opened engineering lab in the School of Engineering Building, will enable us to rethink the way Science, Technology, Engineering and Maths (STEM) subjects are taught and designed, to help prepare our students more readily

for future professions, by reflecting the multifaceted nature of working life. It will make more effective use of our staff's time and resources through the efficient use of practical teaching space, innovations in teaching delivery and the reinvention of practical classes.

The current plans outline the construction of a new purpose-built facility which will incorporate a wet lab, dry lab and e-lab, to be located between the Learning Centre and the Biosciences Building. Building work is expected to begin in the New Year.



Artists' impression of the Collaborative Teaching Laboratory



To keep up to date with all of our campus developments please visit the University campus developments web page: www.birmingham.ac.uk/building

BIRMINGHAM: TACKLING THE WORLD'S WATER SCARCITY

UNESCO'S DIRECTOR GENERAL, IRINA BOKOVA, HAS INVITED THE UNIVERSITY TO ESTABLISH THE FIRST EVER UNESCO CHAIR IN WATER SCIENCE. *BUZZ* SPOKE TO THE UNIVERSITY'S PROFESSOR OF HYDROLOGY AND THE NEW UNESCO CHAIRHOLDER, PROFESSOR DAVID HANNAH, WHO WILL FACILITATE INTERDISCIPLINARY RESEARCH, EDUCATION AND AWARENESS RAISING TO TACKLE WATER SCARCITY AROUND THE WORLD.

What does being appointed a UNESCO Chairholder mean to you?

On a personal level, I feel very honoured to bring the banner of UNESCO to the University of Birmingham; but, for the University, it's a much wider accolade, and international recognition for our research as a seat of excellence in research and education on hydrological and other water-related problems.

Historically, water has been a source of conflict in the world. How can Water Science help meet UNESCO's global mandate for peace?

Peace has a number of dependencies, including health, prosperity and security; and water is critical to each of these. However, billions of people across the world face serious water-related challenges: water scarcity, poor water quality, lack of sanitation, and the impact of disasters such as floods and droughts. Over 80% of the world's population live in areas with high water security threats – the biggest of which is a lack of water, impacting most severely on the less

the nature of change of water availability through interdisciplinary research, we plan to make better projections (for places that lack data) to minimise uncertainty around water availability. One of the ways we can do this is by making better use of new, more cost-efficient technology, and by harnessing the knowledge of local people as scientists and observers. To tackle water problems, a concerted effort is needed, beyond the scientists – so we're going to hold a conference on 'connected water societies', which will bring together scientists, policy makers and the public to raise awareness of global water resources.

How does UNESCO's work link to your own research here in Birmingham?

The research of my own research team at the University aims to understand how the atmosphere and the land surface drives hydrological events such as floods and droughts. Broadly, my work has three sub-strands: firstly, how the climate drives variability in river flows, and what happens to water when it reaches land – ie, where does water go when it rains and what happens to it on the

at river temperature variability in major salmon rivers and work out what role the landscape (trees, altitude etc.) plays to better model what might happen to water temperature under climate change.

What will be the biggest global challenge that we will need Water Science to find solutions for over the next century?

The biggest challenge will be water security: access to, and the sustainable management of precious and finite water resources. We can't tackle this without understanding the fundamentals of water science, and how people and water interact. At Birmingham we've been able to reconceptualise the way we in which we think about hydrological systems by showing that they can't be viewed purely in the context of natural processes – humans are very much embedded in, and modify, the hydrological cycle in both positive and negative ways. Thus, interdisciplinary approaches that span natural and social sciences are needed to unlock the global water challenges of relevance to society.

THE BIGGEST CHALLENGE WILL BE WATER SECURITY: ACCESS TO, AND THE SUSTAINABLE MANAGEMENT OF PRECIOUS AND FINITE WATER RESOURCES.

developed world. Underpinning much of UNESCO's wider work are the UN Sustainable Development Goals, which are, in turn, embedded in UNESCO's International Hydrological Programme (IHP) – focusing on water security. We'll be working, in the context of the IHP, on the equitability of access to and the sustainable development of water, which hopefully, in turn, helps reduce conflict and makes the world a more peaceful place.

As UNESCO's Chair in Water Science, what are your goals and aspirations?

Through our work with UNESCO and other partners, we aim to develop a transformative approach to tackle 'wicked water problems' – multifaceted, interconnected problems that are extremely difficult to solve due to changing human requirements, lack of data and other reasons. By quantifying and understanding

way to the river? This research spans from understanding past event-based variability for individual watersheds to global-scale modelling of low flow and high flows in 2100. Secondly, we are seeking to understand how snow and glaciers melt and how the water runoff will vary under change (this links with collaborative ecological research on the biodiversity of Arctic and Alpine rivers). We've shown that as snow and glaciers shrink, the habitats in rivers can change, and in some instances endemic species can disappear. Thirdly, we've been working with the Scottish Government on river and stream temperature change to explore how the environmental process heats up and cools down rivers. We're developing a science base to understand how shading by riverbank trees can modify water temperature by installing a network of river temperature sensors across Scotland. We'll use this to look



Lake Gaube below the Vignemale and Oulettes glaciers, French Pyrenees



David on fieldwork in King's Fjord (Kongsfjorden), Svalbard

BIRMINGHAM HEROES

MORE THAN A HUNDRED YEARS OF RESEARCH THAT MATTERS

From revealing the structure of DNA to developing new treatments for heart disease and cancer, raising awareness of climate change to pioneering molecular machines, at Birmingham we have been conducting research that matters for over one hundred years.

To celebrate our impact, the next phase of our award-winning Birmingham Heroes campaign was launched in November. The campaign is increasingly being recognised by our stakeholders each year and provides a distinctive and consistent voice that showcases the quality and impact of our research. Heroes showcases how we are making a tangible difference to people's lives locally, nationally and internationally. It is this transnational impact that makes Birmingham a truly

global university, and enhances our public profile and reputation at home and abroad.

The campaign will run for one month from 21 November and be seen across London Underground at key stations and along busy lines, with 150 posters distributed across the network. Regionally, it will run across the Midlands rail network, including University station. The campaign will also be supported by an extensive digital advertising strand, targeting key

stakeholders and directing viewers to dedicated web pages where they can find out more about the research areas. The current campaign will focus on the UK, but could adapt well to the international audience. We are currently working on options to enable this to happen. This next phase of Birmingham Heroes highlights our leading academic figures rising to societal, health and environmental challenges and doing Research That Matters in the following areas:

ANTIBIOTIC RESISTANCE

**Professor Adam Cunningham, Professor Ian Henderson,
Professor Laura Piddock, Dr Nick Loman**

Antimicrobial resistance is becoming an increasingly serious threat that affects us all. If not addressed (according to the O'Neill report), by 2050 it could kill millions of people, more than from cancer or road traffic accidents. Our researchers, made up of the one of the largest groupings of microbiologists in the world, are doing all they can to tackle this critical global issue by understanding how antibiotics work, how bacteria become drug-resistant, and finding new ways to prevent and treat infections.

Birmingham's research into antimicrobial resistance demonstrated that biocides – commonly used as disinfectants

and preservatives – are a key factor in increasing antibiotic resistance of pathogenic bacteria. This evidence has been used by the European Commission to underpin new legislation now in force across the EU. Among other research, Birmingham also launched the 'Antibiotic Action' campaign – a global initiative designed to inform and educate politicians, policy makers and the public about the need for discovery, research and development of new antibiotics as well as appropriate use.

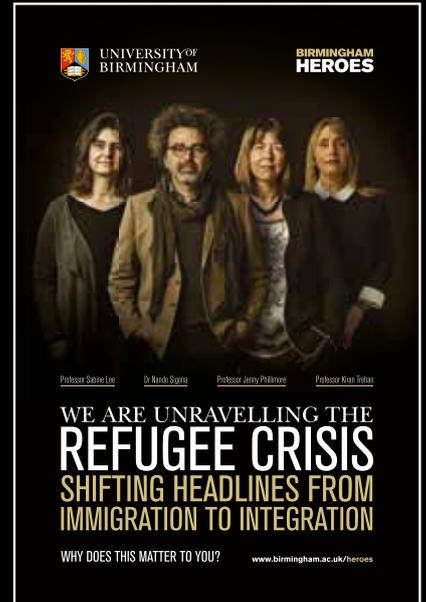


REFUGEE CRISIS

**Professor Sabine Lee, Professor Nando Sigona,
Professor Jenny Phillimore, Professor Kiran Trehan**

The ongoing 'refugee crisis' in the Mediterranean has put immigration and integration issues back in the headlines; often based on false assumptions and generalisations. The efforts of governments across the globe to respond to the crisis has included little effort to understand the back-stories of migrants and refugees. We are working to unravel the myths and identify the drivers and motivations that push migrants to leave their countries of origin or residence, the realities of their journey and their experiences of integrating into their new communities.

Researchers at Birmingham have demonstrated that 88 per cent of those arriving in Greece in 2015 fled their homes because of persecution, violence, death threats or human rights abuse. Despite general assumptions concerning arrivals in Italy from Libya, only 38 per cent of those interviewed cited economic factors as the primary reason for leaving their home country. We know that a progressive, humanitarian response to migration can only be achieved by working with refugees and migrants, and listening to their voices.



RAILWAY REVOLUTION

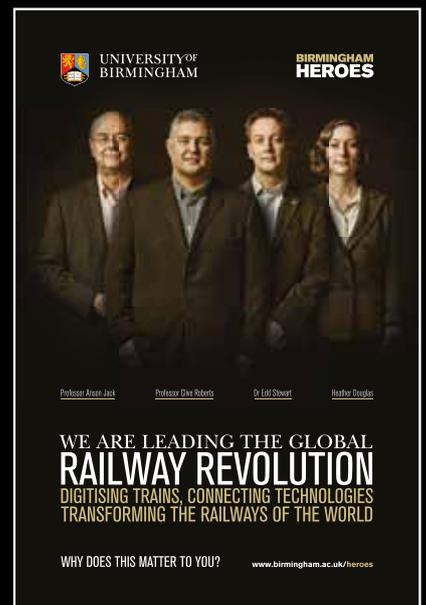
**Professor Anson Jack, Professor Clive Roberts,
Dr Edd Stewart, Heather Douglas**

These are exciting times for railways. Society relies on railway systems more than ever before; they have become integral to how people live and economies grow in the 21st Century. Research and knowledge transfer is crucial to improve the speed, safety, resilience, sustainability, operations and management of railways across the system.

Working with industry, we are innovating to bring about transformational change in railway technology around the world. We are delivering a step change in railway

systems capability and are securing a world-leading position in the sector, delivering jobs, growth and inward investment nationally and internationally.

At the Birmingham Centre for Railway Research and Education, we are having impact across the globe to enhance the future success of railways as a safe, fast, high-capacity and environmentally and customer-friendly transport mode.



CAMPAIGN ROUND UP

Over the last year our Birmingham Heroes campaign featured the themes: Energy Crisis, Mental Illness, Silent Killers, Character Matters, Medical Heroes, Cancer Immunology, Miscarriage Research and Shakespeare. The Campaign has reached more than 4 million people and has received a tremendous response on social media.

To find out more about our Heroes and watch their videos visit www.birmingham.ac.uk/heroes

If you have any feedback or suggestions for future Heroes themes, please contact **Claire Doggett, Head of Marketing** – c.j.doggett@bham.ac.uk



Chancellor's column

In November, I was in India for Theresa May's first visit as Prime Minister where, along with our Pro-Vice-Chancellor, Professor Robin Mason, I was also accompanying Jo Johnson, the Minister of State for Universities, Science, Research and Innovation.

At the University of Birmingham, we pride ourselves on being one of the most international universities in the world.

The potential in every aspect for collaboration between Britain and India is enormous, including the huge scope for increasing international students from India.

Collaboration was the theme of the UK-India Tech Summit in New Delhi at which both of our Prime Ministers spoke. Delightfully, on this occasion, the University of Birmingham was able to highlight its collaboration with Punjab University.

In only one year, since we signed our Memorandum of Understanding with Punjab University, already we have conducted groundbreaking research together, building on a long-lasting connection between the Indian population in the West Midlands and the Punjab region.

At a joint meeting with Punjab University at the British Council in Delhi, attended by Jo Johnson and General VK Singh – the Indian Minister of State for External Affairs – we highlighted the power of collaborative research.

When Punjab University does research on its own it gets an impact rating of 1.37 and the University of Birmingham on its own gets an impact rating of 1.87. However, the two universities' joint research papers receive an impact rating of 5.64, more than three times the score that either university achieves individually, and comparable to the score achieved when the University of Birmingham conducts research jointly with Harvard University.

Jo Johnson even quoted these figures in the closing session of the Tech Summit, as did I, to summarise the purpose for the whole visit – building long-lasting, fruitful collaborations.

As the old saying goes, 'if you want to travel fast, travel alone; if you want to travel far, travel together'.

CAMPUS CURIOSITIES



What is it?

Redmarley gate, Harold Seymour Scott (1883–1946), 1936, Research and Cultural Collections

Where is it?

Research and Cultural Collections Study Centre, 32 Pritchatts Road

This gate features the insignia of Redmarley, the building that houses Research and Cultural Collections. The department drew inspiration from the elaborate gate at the side of the building, and elements feature in the RCC's logo and social media identity. This December marks the fifth birthday of RCC's occupation of the building, and we will celebrate this with a programme of events.

The building has a varied history of former residents and uses since its construction in 1936. It was built as a residence for Dr William Henry Wynn (1878–1956), Professor of Medicine at UoB and designed by Harold Seymour Scott, a Birmingham-based architect more commonly known for his design of cinemas. The name 'Redmarley' probably refers to the village of Redmarley d'Abitot in Gloucestershire, but the significance to Wynn and reasons for this choice are unclear.

The collections study centre now plays host to teaching and events, volunteers and artists-in-residence, alongside functioning as a base for the Research and Cultural Collections and Cultural Engagement departments.

Learn more

For more details about events surrounding the birthday celebrations, see the blog <http://rcc-redmarley.tumblr.com/> and www.facebook.com/ResearchAndCulturalCollections

For more about the history of the building, see www.rcc-redmarley.tumblr.com/redmarleyhistory



news|views

Our regular feature gives *Buzz* readers a quick tour of the latest University news hitting the headlines and activity among our online community.

If you would like to work with the press office, or find out more about how they can help you promote your research, email pressoffice@contacts.bham.ac.uk or call 0121 414 6029

in the news...

Many articles about Birmingham research and expertise appear in local, national and international press every day. Here are just a few examples of our recent highlights.

In a momentous October, we saw Nobel Prize awards for three former researchers. Professors David Thouless and Mike Kosterlitz were recipients of the Physics award, receiving global attention from the *Financial Times*, *Daily Telegraph*, BBC, *New York Times*, *Frankfurter Allgemeine Zeitung*, *The Times of India* and *China Daily*. Professor Ray Jones was among the guests on a BBC Radio 4 special on the career of Professor Thouless.

The following day, Professor Sir Fraser Stoddart was among those to share the award in Chemistry, again gaining significant coverage from the likes of the *Financial Times*, *The Times*, *The Telegraph* and *The Independent*.

One year on from the landmark detection of gravitational waves, Professor Alberto Vecchio and Professor Andreas Freise were interviewed for a special feature on *Buzzfeed*.

After leading scientists and doctors urged an inquiry into claims of a 'weekend effect' in the NHS, Professor Julian Bion spoke to *the Guardian*.

Dr Andrea Krott's work into the benefits of bilingualism, that found people who speak more than one language to have improved attentional control, was covered in the *Daily Mail* and a number of international outlets, including *The Hindustan Times* and *Guangzhou Daily*.

With the dangers of concussion in football in the news once more, Dr Michael Grey spoke to BBC World Service, *Channel 5 News* and the *Mail on Sunday*.

Dr David Grange was interviewed by BBC *Breakfast* on the changes to the UK coastline, where once thriving communities have been reclaimed by nature.

Professor Scott Lucas was interviewed on BBC *Breakfast*, CNN and other media outlets on the latest developments in the US presidential race.

Dr Sudha Sundar's launch of a women's cancer research project in India was covered by the *Times of India*, *Business Standard India* and *Economic Times*.

Dr Tom Pugh's work on the impact of climate change on crop yields was covered in the *Daily Mail*.

Join the UoB online community

Follow us on Twitter at @unibirmingham. If you use social media at work and would like to increase your visibility, find out more at: intranet.birmingham.ac.uk/socialmediaguidelines



feeling social...

During 'Welcome Weekend' we asked both new and returning students to share their journey to the University on Twitter and Instagram using the hashtag #hellobrum

Students shared images of everything from packing the car to arriving on campus, helping to create a real buzz around their big move. We then shared the images across our social channels, to build excitement and engage with the students – and some parents!

Images were collated into a 'Storify' post to show prospective students what it's like to leave home and make the move to Birmingham!

Professor Richard Palmer's research into 'hot' electrons received wide international coverage – including *Business Standard*, *Times of India*, *Indian Express* and *Economic Times*.

Asmiati Malik's article for *The Conversation*, on the poverty that lies behind the beauty of Indonesia's Raja Ampat islands, was later published on the *Huffington Post*.

Dr June Jones' work on repatriating Aboriginal ancestral remains received widespread coverage in Australia, including the *Sydney Morning Herald* and *The Australian*.

Robin Mason... in my own words



Professor Robin Mason is the
Pro-Vice-Chancellor (International).

I grew up from age seven in Birmingham (Quinton, in fact), but I was born in Canada. Although my parents were born within a mile of each other in Smethwick, they first met when my Dad was back in England on leave from the Canadian Army. Within two weeks, he met my Mum and they got married, returning to Canada at the end of the leave as husband and wife. I may get some of my preference for getting things done from them, although it did take me ten years to convince my wife, Lizzie, that I was a good idea.

I came here from the University of Exeter, where I worked for seven years, latterly as PVC of the Business School. Before that, I was at Southampton for 11 years, working my way through the ranks up to Head of Economics. Before Southampton, I was at Cambridge, and before then Oxford.

I join the University of Birmingham as PVC International at a time when there is increasing uncertainty about the factors that influence our sector. But the strongest universities – those that are most global in their outlook and operations – are those that are best placed to ride the storm and come out of it even stronger. We have the ambition to be one of those. But what does that mean for Birmingham?

Too much of the discussion about international students focuses on the higher fees that they can be charged. The best universities in the world are not driven by fee differentials. They're driven by wanting to attract high-quality students, offering them the very best education, and creating and enjoying diverse and multicultural classrooms. Of course, we operate in the UK's regulatory environment. But our University should and does view all students as 'international students': I think that's a real mark of a global university.

Some of the most important research questions transcend national (and disciplinary) boundaries. International collaboration is the only way to tackle some of the great global challenges we face. I'm sure that increasingly we'll see global networks of universities collaborating to tackle the biggest research questions. In Birmingham, we have much to offer, so we have to ensure we're around the table in finding solutions to these big, complex global issues.

The origins of our University as a civic university mean that we were founded to serve our community. In 1900 our community was largely local. Our regional engagement is still very important to us, but increasingly, for issues such as climate change, energy supply and security, our community is actually an international one, not just confined to the West Midlands. We must be mindful of this when thinking about how we influence and engage to benefit our community.

To influence on a global scale, our international reputation is critical, among students, employers and universities. We do pretty well on the first two (we can always do better), but our reputation with other universities lags behind. This is the critical factor determining our international standing. Our ambition is to be consistently in the top 100 of all the main international league tables, so we don't have to pick and choose the ones we shout about. I welcome thoughts and suggestions from across the University on how we achieve this.

Our presence on an international stage is fundamental to our influence, and we're committed to our key territories. It's increasingly likely that more of our education will be happening abroad. Transnational education (TNE) involves students gaining University of Birmingham degrees while studying outside of the UK, through online/distance learning, partnership programmes, or at a campus abroad. I'm sure that TNE will be a growth area for us over the coming years.

I can't really avoid Brexit and the US elections. We know that after the first wave of applications for 2017, the number of EU students applying to study in the UK was down by 9%. It's a concern, but like other aspects of 'Brexit', and even more so the US election, there are uncertainties. I'm distrustful of anyone who claims to know the future about either. One thing that we do know is that our campus is a vibrant, multicultural place to be. Retaining that vibrancy is in our hands – at the moment we're having discussions with the Guild about holding an international week to celebrate the diversity of our students and staff. I'm really looking forward to it.

Since joining the University, I've been struck by the depth, richness and range of our work: post-conflict situations, gravitational waves, women's cancer, mental health, governance and security are demonstrations of our excellence and academic breadth. In Professional Services too, our Cultural Collections, the engagements led by the Registrar with Stockholm institutions to share best practice, and our partnership with Melbourne are all things that have struck me. I've discovered that when as a university we want to do something, we get it done.

Outside of work, I used to enjoy a lot of sports (I was once the mystery sportsman on *They Think It's All Over*). Now my sporting activity is confined to bodyboarding off the north Cornwall coast. I am a keen musician, but again am somewhat lapsed. A career highlight was playing guitar for the Pope in Hyde Park in 2010. Nowadays my main hobbies are acting as a taxi driver for my two daughters, Iris and Dulcie, and walking our dog, Frisbee. **;**